

LES ÉTUDES



DAVID TOMAS

# A BLINDING FLASH OF LIGHT

PHOTOGRAPHY BETWEEN DISCIPLINES AND MEDIA

DAZIBAO



A BLINDING FLASH OF LIGHT

Dedicated to innovative or hybrid work in whose genesis photography is present,  
Les éditions Dazibao endeavours to be a privileged site for thinking about photography  
and its singular ties to other disciplines, or for connecting literature and photography.

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*To Leon and Nina,  
and to the memory of my uncle,  
Andrew Vassiadis*



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## FOREWORD





What is photography? The question seems dated, if not obsolete, a century and a half after the word was first introduced to describe a new semi-automatic picture-making technology. It seems out of place because the manufacture of pictures is no longer founded on nineteenth century analogue technologies. It is increasingly dominated by new digital, computer-based methods of registering and processing optical images. It also seems irrelevant because computing technologies are increasingly used to manufacture pictures that are synthetic or non-optical in origin. Today, other questions concerning the status of machine-based representations have displaced the ones that have circulated around the photograph. These questions are probing a new artifact that is 'postphotographic' in nature and they are engaging with its ability to generate realist synthetic worlds that may or may not mimic the real world.

If the possibility to imagine photography in different ways appears no longer to be useful or necessary, then this is also because we are engaging with new convergent pictorial practices that operate through a common computing environment. Instead of using independent, or semi-autonomous picture-making tools and equipment, we are now working with computer-integrated tools that produce simulations and hybridizations of different kinds of pictures. Multiple, independent inscriptive tools and imaging technologies—pencil, charcoal, chalk, paint brush, perspective machine, camera obscura, camera lucida, photographic camera and its derivatives (moving picture and video), and their supporting and processing technologies—have been replaced by simulations produced in a common computing environment that is a host to different picture-making software.

However, it is precisely during the time when new and old technologies are still jostling for supremacy that questions about a medium that has dominated pictorial practices for over a hundred and fifty years can produce surprising answers and unforeseen viewpoints—perhaps even new practices that might point beyond an expanding digital universe to other ways of creating pictures and different kinds of subjects. For new and old are abnormally exposed and fragile during these transitory periods, when new revolutionary media collide, commune with, or absorb existing media: the latter because they are threatened with fatal

historical displacement, if not extinction; the former because they have not yet gained a substantial hold on existing pictorial practices. Exposure and fragility can create rich conditions for experimentation, and unanticipated technological mutations can lead to new representational developments.

In retrospect, the question “What is photography?” also seems to be strangely dislocated in relation to photographs. After all, was it not always, from the very beginning, a question of measuring the photograph’s epistemological value against the products of the various two-dimensional media that had preceded it (drawing, prints, painting)? Moreover, isn’t this question also diffracted through different disciplinary viewpoints? How does the photograph relate to nature and to other media and how can it be used accurately to record information (scientist and artist)? How was it developed (historian of technology)? What are its cultural characteristics and how is it used (anthropologist and sociologist)? How was it, how is it, and how can it be used (for the historian, sociologist, cultural theorist and late twentieth/early twenty-first century artist)? How was it and how can it be modified in order to serve different interests and viewpoints (industrial scientist and designer, cultural theorist, late twentieth/early twenty-first century artist)?

One expects that these questions will reflect multiple definitions of what photography is, how it operates as a cultural process, and what its sociocultural functions might be, and not just the various ways of using this medium (as if ‘use’ were the only way to define what photography is). Instead, one is surprised to discover that these questions are limited to its pictorial uses and that they are governed by, or reflect a common perspective on the relationship between its mode of producing representations and the representations themselves. On the one hand, photography is defined by the relationships between its components: the optical, mechanical, and photochemical elements and procedures that combine to produce a semi-automatic process that can fix ‘images’ projected from nature in a camera obscura. On the other hand, its cultural value is solely measured in terms of ‘products’ or the different kinds of pictures that it can generate. Thus, notwithstanding photography’s distinct ‘mode of production,’ our theoretical and practical understandings of this picture-making technology have been almost exclusively based on sophisticated analyses of its products.

However, this is not the only way to discover and measure photography’s characteristics or its differences when compared with other media and picture-making technologies. Nor is the distinction between process and product the only way to pinpoint areas of potential

research and innovation. The mesmerizing power that the photograph has exercised over our collective imaginations has created a situation in which it is hard to imagine other forms for images and image-making activities that might emerge through a reconsideration of photography's position in the world of picture-making technologies. This re-evaluation is not limited to photography's historical or contemporary rehabilitation. It can also change the way that we conceive, construct, use or adapt new technologies, inasmuch as they are structured in a similar way (optical imaging and recording technology) or are conceived and operate within a photographic paradigm of realism (naturalistic and lifelike simulations in the case of digital pictures).

A prime objective of this book is to present an unusual model of photography, and to trace its elaboration and transformation over a twenty-five year period. The model has its origins in the belief that art and the history of photography have been subject to one paradigm and one dominant hierarchic relationship: the sovereignty of product over process, of photograph over its mode of production. This viewpoint might seem strange and even perverse, given the fact that the production of a photograph has commonly been understood to be the sole objective of the photographic process. But what would happen if the relationship were equalized, or inverted? Is it possible that photography's structure and cultural logic is not tied up with the photograph in the teleological sense that is implied in its emergence from a sequential process of manufacture? Could it be coupled, on the contrary, with a completely different definition of what an end-product might be?

Another objective of this book is to raise questions about the nature and forms of knowledge that might exist between disciplines. For the model of photography proposed here is informed by a number of distinct disciplines (anthropology, art, the history and sociology of science). Although this is not uncommon, what is more unusual is the way in which the disciplines have also influenced the production of 'visual' works that are formally and iconographically related to more conventional academic artifacts (research papers, books, artworks), but not necessarily in a way that would be considered useful or legitimate.

The medium and visual organization of *A Blinding Flash of Light* is based on the principal methods used to codify university-generated knowledge in the social sciences: the conventionally designed and formatted academic paper and book. But these basic visual formats are complemented by a series of Introductions and Postscripts that function as metacommentaries on the book's chapters. They raise issues and questions concerning the nature of

photography, the relationship between theory and practice, disciplinarily bounded knowledge and inter-, trans- and pan-disciplinary picture-making and knowledge-generating practices in a period (1975–2003) when new and old media existed in an uneasy and increasingly unequal cohabitation.

The chapters that form the core of this book have their roots in Conceptual art of the late 1960s and early 1970s, and in the transition between an artist's European art school-based vocational training in the visual arts and his North American university-based professional and academic training in the visual arts, the history of science and anthropology.

In various ways, the chapters reflect the tensions and contradictions of Conceptual art's text-based practices and those of the university with its compartmentalization of disciplines and its book-based information culture. Thus they eschew an engagement with the art object as traditionally conceived, and, as in the case of an important sector of Conceptual art, they focus in one way or another on the question of photographically-based or mediated communication. But they also reject Conceptual art's preoccupations with the disciplinary and epistemological statuses of the art object. Instead of continuing to explore the limits of the art object as traditionally conceived, the chapters are the products of disciplinary transpositions, of 'movements' and intimate communications between academic disciplines such as the history of science, anthropology and the visual arts. Informed, but never constrained by the art object, the chapters attempt to redefine a medium that was, and continues to be, used in different forms or guises, by artists as well as the members of other disciplines.

For a new generation of artists whose vision is nurtured by a digital imaging culture, with its advanced computing technologies, the focus on photography's uses is perhaps no longer relevant and therefore questions connected with it are not worth asking. This generation is fascinated by a commodity-saturated image culture and has opted to engage with it by way of contemporary subjects that have often been highlighted, if not analyzed, by new academic disciplines such as Cultural Studies. Or alternatively, this generation has simply decided to pursue the routes of pictorial activity that are constantly being laid out by the proliferating array of new imaging technologies. In this new world, it is the computer and digital still/video cameras that seem, for the moment, to command picture-making activity.

The relationship between contemporary picture-making activities and Conceptual art's innovative use of photography as a documentary medium and experimental perceptual instrument, has radically changed because of its marginalization as a viable means of advanced artistic

production. However, certain preoccupations of the earlier art movement are still relevant because of their association with the Academy. For a moment in the late 1960s, artists used ideas and modes of presentation, as well as methods of archiving and dissemination associated with the Academy's print culture. They included ideas borrowed from cybernetics and systems theory that were often, but not exclusively, communicated by the printed image or word. These ideas were presented in forms that included file cards, filing systems, the printed text and the photocopied book.

Although theoretical viewpoints and printed works have always existed in relation to art practice (one thinks, for example, of the text-based visual experiments of Russian Futurism and Constructivism), theory and the book have attained special authorial statuses in determining the art object's conditions of production and reception because of their affiliations with new ways of understanding the basic relationships that animate the Academy's economy, in particular the relationship between writer, text and reader (as in the case of poststructuralism). This type of alliance has been reinforced, in the Anglo-American world, through visual art's association with the ascending discipline of Cultural Studies in the 1980s and 1990s. This relationship has been nurtured by the latter's exploration of the cultural and ideological dimensions of representation, and its unprecedented engagement with all manifestations of popular culture.

The social history of the transforming relationship between artists and academic disciplines after the Second World War, and especially between the late 1960s and 1990s (cybernetics, systems theory, philosophy, structuralism, poststructuralism, feminism, film studies, gay studies, postcolonial studies, etc.) remains to be written, and it will enrich our understanding of the nature and function of the work of art in this period. Insofar as photography was a dominant artistic medium during this time, and one that was constantly theorized, its history also remains to be written. This history is especially significant because photography is a migratory technology of representation that is used by many disciplines, as opposed to painting, installation or performance art which are disciplinarily bound. In this sense, Conceptual art's use of transdisciplinary media (the photograph, the printed word, the photocopy and photostat) is also significant, and points to its intimate association with the Academy's complex multifaceted culture and its common communications economy.

This book seeks to contribute to this history. But it does so from a marginal position and in terms of an unusual viewpoint on the history and theory of the photograph. Its stance is

defined by one person's practice and his association with a number of academic disciplines during a period when photography, as used in the visual arts, was dominated by the optical image and the question of the subject. Paradoxically, this stance cannot easily be located within the institutional spaces of contemporary art because most of its parameters were established in the context of other disciplines and their specialized theories: the transforming context of the history of science in the 1970s with its initial flirtations with the writings of Michel Foucault; the rise of the sociology of science in the same period; symbolic anthropology in the 1980s with its ground-breaking relationships to structuralism and poststructuralism, its theories of ritual processes, creolization, and its increasing focus on the history of its own disciplinary practices. Although the stance that the book presents shares common elements with semiotic and Marxist theories of the photograph, it is not explicitly connected with them because of its links to disciplines that encouraged explorations of symbolic questions related to cultural phenomena, or highly specialized histories, as in the case of the history and sociology of science.

It is worth noting that the textual products associated with the book's marginal position in regard to photographic theory and practice have not circulated in the disciplinary economy of the visual arts. The majority of their forms and contents point to other disciplinary contexts (anthropology, semiology, literary studies) and other kinds of questions. Consequently, they have never directly figured in the institutional settings that have hosted related visual works. Some, however, were produced for art consumption, but always with other multiple contexts in mind. Although the chapters are often diverse in their origins, they are nevertheless united by a fundamental question: What happens to an image or picture-based theory of photography and to the work of art when they are processed through questions relating to the disciplinary development of knowledge? (As opposed to questions that are focused on the nature and ideological uses of the image as defined by a specific type and organization of content.) This question links academic articles, art statements, notes, diagrams and visual works together in a way that might prove interesting at a time when questions of content are being redefined by a radically transforming mediascape, and when interdisciplinarity and the relationship between theory and practice have taken on an almost mythic status in the absence of any clear understanding of the relationship between the Academy, its disciplines (including the visual arts) and the manufacture of artifacts that might exist in a complex relationship with the visual arts and other disciplinary forms of knowledge.

The book is composed of six sections. Each section consists of an Introduction, one or more chapters, and a Postscript. Each Introduction is designed to situate its chapter(s) within the book's overall objectives. Key points and significant arguments within and between chapters and sections are also noted and discussed. Each postscript draws out supplementary theoretical and practical hypotheses and presuppositions in a brief concluding manner, and serves where necessary as an additional bridge to related visual works. The function of the Introductions and Postscripts is to provide an intimate analysis through the 'type of movement' (as discussed in *For a Negative Practice of Photography*) that was originally implicated in the creation of the book's chapters and related visual works. This form of commentary was also adopted because it was the most efficient way to guide a reader through different disciplinary approaches, contents and styles of presentation. But this movement is no longer the product of the author's position in different disciplinary fields; it is now defined by his relationship with the 'products' of an original movement. Moreover, the strategy of bracketing chapters with commentaries was adopted because it creates a tension between different moments in time, as represented by each chapter, and the retrospective and critical viewpoints that are created by the task of collecting and rereading a body of work that spans almost twenty-five years, with its pleasures, surprises and moments of nostalgia.

The commentaries allow the reader to assess a body of work without relegating it to the past. On the contrary, the reader is presented with a new process of analysis, synthesis, comparison and extrapolation on the limits and possibilities of each of the theoretical and practical viewpoints presented. The process is, moreover, based on a movement and tension between different narrative forms and narrators. These characteristics are a product of the impossibility of effacing the intimate relationship between the artist and the academic that still permeates the book, and transforms it into a byproduct of both writing articles and producing visual works. However, the autobiographical dimension of the commentaries has been reduced to the minimum so the reader can obtain a clear picture of the approaches and issues addressed in this book, and their theoretical and practical implications. These choices have been made in order to preserve the dynamics of visual and writing practices that have emerged 'in movement' (a condition that I would like to emphasize as a prerequisite for these kinds of practices). The preservation of this movement is important because it also emphasizes the non-hierarchical relationship that existed, and continues to exist, between textual and visual products. The movements between the 'idea' and practices of academic research, as well as those of specific university disciplines, and the practice of photography, promote different

relationships between theory and practice as well as tracing out the logical consequences of Conceptual art's relationship with academic forms of knowledge and modes of presentation. Thus, if this book is the product of its own time, yet is saturated with the practices and possibilities of other times and places, then this is in order to continue to elaborate on a practice that is the outcome of a movement between disciplines, even if this movement is not necessarily 'registered,' 'deployed,' 'presented' or 'displayed' as it was twenty-five years ago.

The Introductions and Postscripts vary in length depending on the number of chapters in each section and the amount of information that was needed to contextualize a chapter and clarify its contents. Clarification has occasionally produced repetition of a chapter's content, which was nevertheless considered acceptable under the circumstances. However, each reader can choose the degree to which he or she will be subject to this mode of presentation. Because the book can be read in a number of different ways—through its individual chapters, complete sections, introductions and postscripts, or through a combination of chapters, introductions and postscripts—each reading provides a different viewpoint on the question: "What is photography?"

Finally, the chapters bear the imprints of the times in which they were written, and have been left in their original forms (another reason for the redundancies that exist between chapters), with the exception of grammatical and typographical corrections, and editorial adjustments in the interests of clarity and a common style of presentation. The choice of illustrations has been guided by the book's focus on the principles, elements and processual structure of a ritual model of photography, and their impact on a particular art practice. Thus a substantial number of the illustrations have their origins in the period 1975–1985. These illustrations were chosen because they provide a parallel and complementary perspective on the relationship between an art practice and the disciplinary formation of knowledge. They shed light on the way the artist was situated in/between academically defined fields, on how this 'location' guided the production of visual works, and they also shed light on how the visual works influenced an academic practice. Additional images that cover the 1990s through to 2003 provide the reader with a visual context for later developments in this relationship.



The book is the product of an unusual opportunity to explore a practice and its relationship to other forms of knowledge from the practitioner's own viewpoint, albeit at a later date in the relationship's development. I would like to thank France Choinière warmly for providing me with this opportunity. I would also like to thank Myriam Yates for scanning, proofing and correcting the original articles, Rosika Desnoyers for tracking down original sources, Paddy O'Brien and Jack Stanley for their editing and proof reading dexterity, and Marie-Orphée Duval for collating texts and managing the project with such skill. A project of this nature could not have been undertaken without their help, expertise, patience and humour. Finally, I would like to thank Michèle and Nina-Fu, whose patience was sometimes stretched to the limit by the work that was involved in producing this book.

*David Tomas*



1. INVISIBLE MOVEMENTS,  
ACTS OF NEGATION



## INTRODUCTION

Early practitioners of Conceptual art rejected the conventional supports (with the exception of paper), imaging technologies and artisanal methods of all previous practices of fine art. Conceptual artists such as Robert Barry, Jan Dibbets, Douglas Huebler, Joseph Kosuth and Lawrence Wiener developed art practices that used contemporary reproductive technologies such as the camera, the photocopy machine, the typewriter and the printing press in new ways. They made new kinds of artworks based on the unconventional use of the photograph, the photocopy, the photostat, the newspaper, the billboard and the printed word. Because the visual works that used these media raised questions about content, presentation and location, they challenged conventional pictorial practices and their well-developed modes of display. For a brief moment in 1968–1969, the artwork and the exhibition space were effectively fused with the exhibition catalogue, as a new set of possibilities were exposed by the ground-breaking exhibitions of the New York dealer, Seth Siegelaub. Exhibitions such as *Douglas Huebler: November 1968, March 1–31, 1969, and July, August, September, 1969*, proposed, in addition to a new type of artwork, radical solutions to traditional relationships between pictorial work and exhibition space, as well as the artwork and its mode of dissemination through the exhibition catalogue.

Artists like Kosuth, Hans Haacke or Bernar Venet, and those associated with the Art & Language group, had also clearly transformed the artwork through the adoption of academic disciplinary methodologies, strategies, visual practices and attitudes. The works produced by these artists were framed, informed by, or referred to disciplines such as philosophy, sociology and physics, or relatively new interdisciplinary models associated with cybernetics and systems theory. These works seemed to pose a clear challenge to the autonomy of the artwork in much the same way that Duchamp's readymades did, but from a singular or implied academic frame of reference. Conceptual art had also valorized the notion of the 'idea' over the conventional materialities of the art object, its aesthetic and 'retinal' qualities. Thus artists who acknowledged the primacy of the idea over an artwork's retinal qualities were Duchamp's legitimate heirs. However, paradoxically, and in contrast to Duchamp, they also seemed to suggest through their combinations of media, visual tools, references and methods

of presentation that this new art was now in some sense dependent on other academic forms of knowledge, and that it might not exist without them. For the most radical of their works pointed, either directly (Venet) or obliquely (Kosuth, *Art & Language*) to a new context for the professional training of the modern artist—the university—and they did so in a way that redefined the artwork in its terms. This context seemed to point to new epistemological foundations for the art object—to the fact that art could also be considered to be a form of knowledge and the visual arts an academic discipline amongst other equivalent disciplines. However, Conceptual art's new media and frames of reference also seemed to suggest that art might be a secondary and illustrative practice in the sense that its preoccupations might not be of interest to the practitioners of the disciplines that had served as the source of its visual or methodological inspiration.

Conceptual art marked a significant watershed in the history of art because it drew attention, in an unprecedented way, to the limits of knowledge in terms of disciplines and boundaries. However, these limits were identified and transgressed, without ever stepping out of the art world. For the most part, the most radical of the Conceptual artists (*Art & Language*, Venet) were content to import knowledge and methodologies from other academic disciplines in order to critique and redefine artistic practice and the artwork. It is astonishing that questions concerning disciplinary boundaries and academic frameworks were only exploited by Conceptual artists in ways that favoured the continued production of artworks, and that the new disciplinary matrix in which art was increasingly to function was never brought into play in order to compare and question the visual basis and formal or aesthetic dimensions of art in relation to other forms of knowledge—or even to move between fields of knowledge.

A similar paradox was exposed in Conceptual art's use of photography. For the generation of artists who embraced Conceptual art in the late 1960s and 1970s, the broad question of photography's cultural status was never directly engaged because their focus was always on the photochemical image, its structural, cultural, and ideological statuses, uses and counter-uses. The artists who produced camera-based works in the late 1960s (Vito Acconci, Barry, Bernd and Hilla Becher, Victor Burgin, Dibbets, Dan Graham, Ed Ruscha, Michael Snow, etc.) produced new ways of working with the camera and photograph (Ruscha, Acconci, Dibbets, Snow), new kinds of subject-matter (Barry, the Becher's, Ruscha, Graham), or new relationships with theory and practice (Burgin). But in all cases, radical practices were developed within and in terms of the ongoing transformations in the picture-making conventions of Western art.

These paradoxes were clearly the products of Conceptual art's flirtations with elements of a new set of environmental references. Conceptual art's use of the printed word and associated modes of reproduction and archiving (photograph, photocopy, photostat, file card) had opened up the question of subject-matter in unforeseen ways. This question was also addressed through the importation of new subject-matters, conventions and methodologies. However, if one started to import a significant amount of foreign subject-matter, methods or visual tools, then one created a serious problem for the viewer because he or she was placed in a position in one world (art) that could only make sense in another (physics, the history of science, anthropology, etc.). And yet, from the viewpoint of the other discipline, explorations that might be founded on coextensive methodologies or subjects would appear to be opaque, or they might not make sense if they had not been packaged in a familiar way (the written article or book). Then there was the question of legitimate knowledge—that is, knowledge that could be easily recognized, situated, and survive and compete in the other discipline.

The interview *For a Negative Practice of Photography* addresses the socio-logic of a practice situated between the fields of art and anthropology. It points to their different information economies and methodologies, and their potential incompatibilities. The issue of research is raised and the particular economy that sustains this type of practice is described: a circulation of ideas and information between academic texts that are conceived in relation to visual works and spatially deployed visual texts that are conceived and executed in relation to the academic ones. This practice is different from one that is based on the importation of ideas from other disciplines in one important detail: it is founded on 'legitimate' research practices and the production of knowledge in both fields. This dualistic methodology generates the practice's critical possibilities. *For a Negative Practice of Photography* points to the paradoxes of a double process of legitimation and to the existence of a "third space" in between. It discusses how one might gain access to this space through an "act of negation" and describes its 'negative' characteristics. This is important in photography's case because of its transdisciplinary uses, and its ability to serve as a bridge between, amongst other disciplines, art and anthropology, or art and the physical sciences. The interview focuses on the existence of an oscillatory movement between fields and the fact that this movement cannot be seen. There are also questions concerning the limits associated with works that exist 'in-between.'

The ambiguous position of hybrid, pan- or transdisciplinary works raises questions about the nature and constitution of legitimate/illegitimate forms of knowledge and their disciplinary/anti-disciplinary roles in both art and anthropology. It also raises questions about the

nature of fieldwork as a means of accumulating information that can then be digested and archived by disciplines. What, for example, is the relationship between the article, book, and the two- or three-dimensional visual work? How is information processed into 'Knowledge' in different disciplines? What happens when someone works between disciplines as opposed to within one or another discipline? Within the context of anthropology, why is the form of presentation associated with installation artworks considered to be an illegitimate medium for encrypting knowledge when compared with books, photographs and films? Why is the visual format of an academic work considered to be too intellectual or too rigid to be treated as an 'aesthetic object' of equal standing with an installation or performance art piece? Why has surrealism had more of an impact on postmodern anthropology and ethnography than Russian Constructivism? How are knowledge, practices, concerns and interests 'mirrored' in opposing disciplines in such a way that enables their practitioners to continue to pursue their activities without stepping outside of the legitimate boundaries of their discipline? This leads us to the question of the risk that is involved in intellectual transgressions and the choices that we make to conceive and produce visual works that are founded on the socio-symbolic logic of specific technologies of representation instead of conventional categories of subject-matter.

Risk raises questions about the nature and functions of knowledge that are constructed and declared by disciplines, in particular academic disciplines, and the knowledge that is reported by a visual practice that might be situated between disciplines. The use of the term 'risk' under these circumstances is appropriate because it is linked to the dangerous consequences of the miscomprehension, misrepresentation and error that are produced by friction and impact between legitimate and illegitimate forms of knowledge, and because it can provide a useful measure for activity that takes place specifically within disciplines, but also in movement between them.

A provocative way to illustrate the ambiguous position of this in-between activity and its culture of risk is through a cogent metaphor for the ways disciplines organize knowledge and police human minds and bodies in their terms.

Bentham's panopticon provides a concise way of visualizing the type of organizational structure that the university system represents. His celebrated prison model places its inhabitants in a circular, partitioned architectural structure that installs an observer at the centre of a system that compartmentalizes each object of observation (an inmate's body) in such a way as to place it against a lit background (the prison cell's window). The prisoner is always isolated in a cell and silhouetted against a background of light. The inmate cannot see the guard, and must



always assume that he or she is under observation. Thus the prisoner's behaviour is always governed/disciplined by the 'idea' that he or she is under observation. Insofar as the prisoner internalizes this idea, there is no need for an actual observer to be in place at the system's centre: the prisoner will behave as if he or she were always under constant observation.

Compartmentalization and self-discipline are also characteristics of the way academic knowledge is organized and governed under the sign of observation, since this kind of knowledge is invariably geared to constructing perspectives that coherently depict an outside world. Although there is no direct architectural correspondence between the panopticon and the university, one has only to visit the latter institution, or to pass through its processes of initiation, acculturation and accreditation, to become aware of the way knowledge has been segregated and compartmentalized into a range of disciplines that lay claim to unique perspectives on the world. These claims are based on boundaries that are policed and defended against 'illegitimate' forms of knowledge, even if these forms are academic in nature. The perspectives are then codified through common sign systems such as written and pictorial languages and are reproduced and disseminated in similar ways, the most common being the book. Central to the academy's correct and efficient operation is the book and its archive:



News Photograph: "Preparing the new catalogue for the British Museum, which will consist of over 200 volumes, of 1,000 columns each, and will take 23 years to complete." Photopress, London, nd, second quarter of the twentieth century. This photograph is a powerful testimony to the manual processes and time intervals implicated in the development of an extensive book-based reference archive.

Collection: D. Tomas.

the library. The library also figures in the museum's culture in evocative ways that can reveal the book's central role in structuring its conceptual space.

Reducing the university system to the schematics of a panopticon draws attention to its compartmentalized and disciplinary culture. One can imagine the perfect university in the shape of Bentham's panopticon, with a library situated at its centre and where each cell is represented by a particular discipline.

Since art is now taught in the university, how does this new environment impact on the nature of the artwork, especially if the work is conceived in relation to another discipline such as the history of science or anthropology? This question is especially significant for

someone who has passed through the traditional art school/university systems and who is, as a result, aware of the potential consequences of different pedagogic systems and ideologies. For example, it is clear that each system produces different kinds of artworks according to different epistemological models and possibilities, and that this implies different frames of reference and audiences.

The two chapters in this section, the one a 1984 interview, and the other proposing a critique of the reflexive, experimental, ‘writerly’ ethnographies of the 1980s, engage with the issues of disciplinary boundaries, legitimate and illegitimate practices and forms of knowledge, and thus set the stage for the following sections. *For a Negative Practice of Photography* sets the



The postconceptual artist as designer for the art world’s book culture: Vito Acconci Studio, *Info-System/Bookstore for Documenta X*, 1997, Documenta X, Kassel, 1997. Acconci’s design was for Documenta’s Walther König bookstore.

Photograph: D. Tomas

tone for the book because of its detailed discussion of the disciplinary logic through which a different kind of photographic practice can be staged. It presents a clear picture of how an identity is created through the movement between fields of knowledge and how this identity figures through a distinct photographic practice. In this sense, it is a key reference for the trajectory of theory and practice that leads to a postphotographic practice as presented in *From the Photograph to Postphotographic Practice: Toward a Postoptical Ecology of the Eye*. It also sets the stage for the development of the notion of transcultural space that becomes a central concept behind the discussion of drawing and photography in *Mimesis and the Death of Difference in the Graphic Arts*. *From Gesture to Activity* is an example of the critiques that can be developed when

one begins to transpose methods and strategies from one field of knowledge (art) to another (anthropology), as opposed to reversing the process as is common in most postmodern and postcolonial academically inspired artworks. This transposition produces different perspectives for engaging with pictorial traditions, practices, and theoretical issues in contrast to those that are based on imported concepts (as opposed to methods and practices).

*For a Negative Practice* and *From Gesture to Activity* were not engaged in reconfiguring disciplines, nor were they preoccupied with the creation of a metadiscipline like cybernetics. They were committed to a visual and theoretical investigation of the kinds of activities that could be pursued between disciplines and their consequences in a world divided in terms



A visual work that is the product of the art world's new information culture: Heimo Zobernig, *Ohne Titel*, 1997, Documenta X, Kassel, 1997. Zobernig's work consisted of producing a 'visual platform' for the participants in Documenta X's 100 days—100 guests program. *Ohne Titel* provides an interface between the presentations and representations of the 100 guests and other activities situated on the ground floor of Documenta-Halle. The work divided the ground floor into functional spaces: a space for debates and performances, a recording space, and a space for the Walther König bookstore. Since the bookstore was an Acconci Studio design, and the chairs (*Dokustuhl*, 1997) deployed in the Halle were produced by Franz West, another Documenta artist, Zobernig's work becomes a meta-work of organizational and aesthetic design.

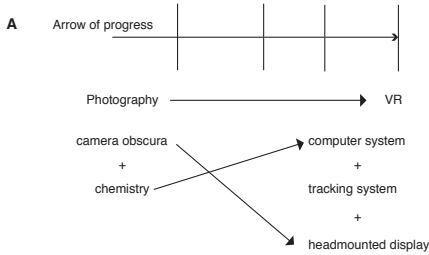
Photograph: D. Tomas

of academic disciplines and normative forms of knowledge. They represent attempts to reflect on the ambiguous position and epistemological ramifications of an individual who

circulates between established and emerging or experimental disciplinary fields. The interview presents the viewpoint of a person at the beginning of a career. At this point, the issues and implications of this kind of movement are new and clear, and are perceived to be radical and unlimited in scope and potential for change. The second reflects the maturity of a position that can never be resolved, even in relatively hospitable circumstances, coupled to self-confidence in its legitimacy and critical perspective as defined in relation to a specific disciplinary context that is governed by limited experimental approaches and procedures.

The first chapter is strategically positioned in relation to the field of art, the second in relation to new historical and literary approaches to anthropology, its fieldwork practices, and its systems of communication and display. It is interesting to note the position of photography in both chapters. In the interview, photography is conceived to be at the core of a "practice." In *From Gesture to Activity*, photography is still a key element, but it is no longer considered to be at the focus of a practice. The shift between the two is a result of photography's position in different fields of activity. It also reflects a general reevaluation of photography's role in a culture

What is a New Technology?



**B Networked/Intersystemic Approach to the History of New Media**

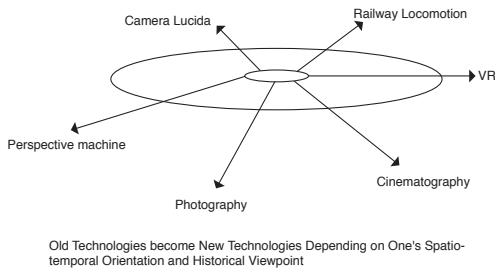


Diagram for a relational history of media.

Most histories are linear and progressive in the sense that they present a series of events or sequence of artifacts, etc., in linear temporal progression or from simple to complex. A relational history is context specific and it presents a local network that links events or artifacts across space and time. In this network there is no before and after. Relationships are defined in multiple directions and dimensions.

and in a postconceptual art practice: photography has been reduced to an element in a relational history of media where it is considered to be one of a number of transportations and communications media that combine together to form a matrix for a non-linear history of human movement and memory.

This new position is present in the visual works beginning in 1982 and is acknowledged in the interview through the discussion of *Photography: A Word* (1983).

*Elements of the previous discussion of Conceptual art and risk were originally published in David Tomas, "Une pratique entre les disciplines : risques et enjeux," LA MÉMOIRE—LE VIRUS—LE RISQUE : Actes des tables rondes du 10<sup>e</sup> anniversaire de la Galerie B-312, (Montréal: Galerie B-312, 2003), 41–47.*

## 1.1 FOR A NEGATIVE PRACTICE OF PHOTOGRAPHY: AN INTERVIEW WITH ALBERTO CAMBROSIO

ALBERTO CAMBROSIO: Your work is situated at the juncture of two fields of activity, the artistic and the academic. We might see in that an attempt at an artistic deconstruction of academic discourse, an attempt which, from a practical point of view, nevertheless creates certain objective limitations to the exposure of your work. People active in the field of art don't read, or at least don't master, scholarly and technical publications, while academics do not 'consume' art exhibitions the way they consume the books and articles written by their colleagues. You work in a sort of 'no man's land.' Is this a conscious strategy?

DAVID TOMAS: Yes, because with respect to the sense that there are two fields of knowledge—the scholarly and the artistic—what's at issue, on the one hand, is to establish a relationship with a body of information which is not, or so it would seem, material out of which an artistic discourse can be constructed; and, on the other hand, to put in place a methodology which, strictly speaking, is not that of the academic field. We might say, therefore, that I operate in a 'displaced' space, because I have to produce a discourse in relation to an 'artistic' frame of reference while at the same time raising questions that do not really belong to this particular field; and that I try to find a way of producing a discourse which, while it can't really be described as 'academic,' nevertheless incorporates strategies that are related to research practices. Thus the texts that I publish in academic journals, for example, are implicitly conceived in a visual context, or in relation to a visual milieu. On the other hand, my 'visual texts' are conceived in relation to these 'scholarly' texts. Between these two poles something is set in play, which consists, for example, of critiquing, at the level of representational form, what could be seen as a visual given, while at the same time critiquing what 'representation' might be in the academic field.

CAMBROSIO: So you refuse any rigid distinction between the artistic and academic fields, and you prefer to see yourself as a sort of symbolic process constantly moving back and forth between one field and the other. Nevertheless, those who see you from the outside are able to follow this movement only with great difficulty. And so they want to position you within



*'Experimental' Photographic Structure* (seen from the left and the right), 1980, installation at P.S.1., New York. A transparent partition divides the room into two spaces: the space of the photographer's activities and the space of the viewer's activities. In the former, a metallic rod marks the place where the stroboscope was originally located, and an electronic timer where the camera was placed. In the latter space, an electronic timer is also seen, as well as a 6 metre by 4.2 metre 'photograph.' The two timers, each the mirror image of the other, oscillate in cycles of ten-seconds—the exposure time of the 'photograph.'

Photographs: D. Tomas

one or the other of these two categories. How can you escape this polarization imposed from outside?

TOMAS: There are two ways. The first is social, and consists of legitimating yourself in each of the two fields simultaneously through scholarly articles and art exhibitions. But, in so far as the legitimation process is closely tied to a given field, and not to both fields at once, the problem of the intelligibility of the discourse I'm trying to put in place remains. Because, in the end, there is no way of escaping a discourse which attempts to trap an agent and to draw it into its own field. The discourse can also refuse to define the agent—the discourse can ignore it and thus plunge it into non-knowledge. The other, more interesting way, is to persuade the two fields that a third space exists, a space which has a specific relationship to each of them. To reach this point, you have to set up a sort of seduction, which is both visual and intellectual, a sort of transgression that will simultaneously deny both poles. This gesture of negation thus plays the game of power (the game of legitimation), in so far as the power of legitimation is always played out with respect to a non-knowledge which, by definition, is beyond a field's frame of reference. In other words, we can seek this state of non-knowledge by means of an act of negation embodied in a gesture of transgression. You

have to initiate a process of negation in order to start this process anew, in order to create a field that I call 'negative' with respect to the other two fields. The problem, however, is first and above all not to be a victim of the seduction yourself, not to take yourself as an artist or

an academic and thus find yourself ipso facto in one field or the other. On the other hand, the effect produced by the seduction carried out by a non-knowledge<sup>1</sup> can most likely only be described by means of an institutional discourse, which implies a 'third' role, defined by its connection to the positive roles of artist and academic (in my case, of anthropologist). This third role is the role of the photographer. This choice is neither fortuitous nor arbitrary, because it is linked to the idea of a history of the Western gaze, a history which combines the anthropological, artistic, and photographic gazes.

CAMBROSIO: Between these two fields, however, there is dissymmetry. You thus can't expect, by situating yourself in the middle, to have the same effect on each of them.

TOMAS: Historically, the field most susceptible to being interested in such a project has been the artistic field, which, at least in appearance, is by tradition 'open.' There is no reason why, however, the artistic field should, *a priori*, be more open to such a strategy. This is true even if we consider its tradition, which, for its part, is conditioned by its own history, by the history of its knowledge. There is no place in this history for a seemingly 'negative' space, conceived of in terms of its relationship to another field. On a strategic level, you can see a natural effect of rejection, which is the result of an institutional and artistic 'dual constraint,' because, on this level, non-knowledge must also be out of the field's frame of reference. This dual constraint is thus produced in the exhibition setting: a negative discourse is strategically present within a positive setting, that of the gallery or museum as an institutional component of the artistic field.

CAMBROSIO: I'd like to return briefly to the problem of how the movement through which you construct your discourse is perceived. Where you postulate the existence of an oscillation, we might simply see a doubling: there is not just one David Tomas, but two—one for academics and one for artists. How can your movement be made visible?

TOMAS: At the moment, my strategy consists, quite to the contrary, of moving about without anyone noticing the movement. At the precise moment when the movement becomes evident to those observing it, at the precise moment when your extra-institutional position is perceived, that's when people start to say "But, in fact, he's not really an academic," or, similarly, "But, in fact, he's not really an artist." You have to avoid exposing the movement, while also avoiding the danger of symbolic dissolution, which threatens any immobile agent deprived of an institutional definition. On the other hand, the vision of the artist as 'undivided entity' is a Romantic vision. In actual fact there is no unique entity but rather, precisely, movement

between two roles defined by sociocultural fields. Existence between the artistic field and the academic field can never be embodied in a specific individual. You therefore can't see yourself as automatically existing between two positive fields, but only as movement.

CAMBROSIO: Is your ultimate goal subversive? In other words, does it seek the dissolution of these two fields? Or is it, rather, a personal strategy of differentiation?

TOMAS: At first, I borrowed elements from the history of physics which I incorporated into my work. This was a way of questioning the premises of the artistic field. It was less a subversive act than an act carried out from a critical perspective. The external elements I incorporated into my paintings questioned an art—painting—that is incapable of conceiving of itself as an historical art. I use the word historical here not with respect to the limited discourse on painting but in the sense of a larger discourse, the discourse of a displaced knowledge within a given representation. Problems concerning the history of physics, once they are transferred to an artistic framework, question the notion of such an art form's subject.

This underlying approach also characterizes my more recent work. Before, when I used the history of physics, I transplanted—when all is said and done quite naively—the elements of one history into another. My current work on the ritual of photography questions the very notion of photography as a sociocultural process and, simultaneously, questions the definition produced by the discipline of anthropology concerning what a ritual is. I replaced the process of transplantation with simultaneous criticisms of the anthropological framework and the artistic framework. In this way, for example, I am both subject and object of an anthropological practice, both indigenous person (a photographer) and anthropologist (I observe the practice of photography). The link with anthropology allows me to construct a series of interrogations into the status of an anthropologist who sees himself as the subject of his own research, while also constructing a series of investigations into the status of an indigenous person who tries to think beyond his own culture, in the sense in which he might see himself as the subject of his own anthropological practice. The doubling is carried out through a reflexive process: as a photographer, I see myself in relation to an anthropological theory of the photographic process (and in so far as this is a theory I developed in 1979—in my role as an artist—there is a doubling of roles involved); as an anthropologist, I 'observe' what I have become as a sociocultural subject of study, and I 'see' that in changing the activity of a photographic practice (which is to say, by theorizing it from the point of view of anthropological knowledge), anthropology has become not only a science of observation but also an applied and experimental science. Because I (the anthropologist) begin to manipulate photography on



the basis of its 'knowledge,' the status of anthropological objectivity is altered. The artist, the other pole of this process, sees photography (and, in its terms, anthropology as well), from an aesthetic perspective, as a form of representation: a spatial graphics. And so this reflexive process appears once again in the oscillation between the role of the artist and the role of the anthropologist. The result of this strategy is not an academic representation, nor is it an artistic representation, it is the verbal and visual representation of a visual mutation on the academic and artistic levels. The fields of art, photography and the Academy dissolve into their own gazes. For me, it is necessary that this movement, which I have been describing at length, not be the result of an act of bricolage. It is a subversive strategy which attempts to establish a homogeneous field, because the different fields evoked have, since the nineteenth century, been intimately connected to the complexity of a history of the Western gaze. This history has yet to be written: under the fixed gaze of the scholar, the Western gaze has taken possession of multiple universes which form the fabric of the sociocultural space in which our daily life is defined.

CAMBROSIO: At an exhibition at Optica gallery in Montreal in 1979, at a time when you were using the history of physics, there was a painting upon which you had attached, immobile, a locomotive. In your more recent work, which we might call 'negative,' miniature trains (which are now in movement) are invariably present. Using this train element, can you better explain how a seemingly 'positive' discourse (in both an artistic and an anthropological sense) has been incorporated into your work?

TOMAS: The painting you are referring to took up the theme of a painting by René Magritte entitled *La Durée Poignardée* (*Time Transfixed*, 1938) in which could be seen, among other things, a train. By linking Magritte's painting to the work of Galileo, I wanted to create a poetic space, to cross a horizontal movement (the train in motion) with a vertical one (the object falling in accordance with Galileo's law). In this transcription, as you have observed, the train was attached to the canvas and was suspended in space, thus defying its own physical movements. In this way, I was asking myself what a train falling in the space of a painting might be, and in general, what it might be in pictorial space. I took up this question in my subsequent work by superimposing a photographic discourse (the stroboscopic photography of an object falling in space) onto the history of painting, which I condensed and questioned in the way I had when transcribing Magritte's painting. From the point of view of my personal development, this painting was the first in which a train appeared as a physical object. For four years afterwards I didn't use trains, and when I did return to them, they were in motion.

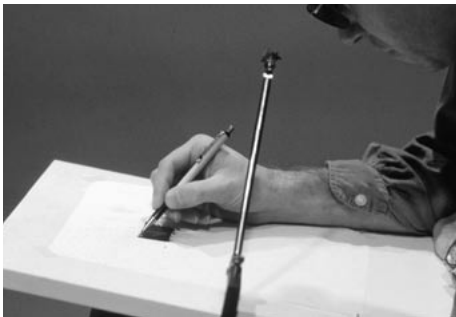


*'Experimental' Photographic Structure III*, 1982, installation at the Belgo Building, Montreal. This work is divided into three axes: the axis of the photographer's activity, the axis of the draughtsman's activity, and the symbolic axis of history. The first axis includes, in order, a mirror, a stroboscope, a camera, and four transparent positive 'photographs.' The second includes a drawing table, at which the artist is seated, a Polaroid camera, and a quote printed on the wall. The third intersects the other two and is made up of video cameras and a miniature train, which moves between two points marked by video monitors. Two video cameras 'record' the train's trajectory. When it crosses a bridge located in the axis of the draughtsman's vision, a viewer is asked to take a photograph: the draughtsman's act of negation consists in making a 'black' drawing of it.

Photographs: D. Tomas

Let's go back, for a moment, to the first painting. The transcription of Magritte was meant to be analytical. It was a metadiscourse on the original painting: by adding the parameters of the two movements (horizontal and vertical) and by making reference to a law of physics discovered by Galileo, I was transposing another domain onto art. Between Magritte's train and my own, the discourse was reversed. I now think that this attempt to enquire into the parameters of a field by transferring elements from another field into it was naive, and prevented me from enquiring into art's sociocultural framework. Although I was interested in this question, my work was still directed towards the problems posed by the epistemological status of the 'framed' image and not towards a larger context. In the meantime, I moved into the academic field, passing from the history of science to anthropology. I thus chose a broader field, one that was capable of relating apparently heterogeneous, yet socioculturally linked, elements such as trains and the photographic process in a reflexive way.

CAMBROSIO: For the exhibition of your work at Galerie Yajima in 1983 (*Photography: A Word*), you were seated on a draughtsman's stool a few metres away from a mirror, which was pierced at its centre in order that the railway line that extended from you, and that supported a train which circulated in both directions, could pass through. Among the various objects that



*Photography: A Word*, 1983, installation at Galerie Yajima, Montreal. This work takes up most of the elements present in the previous pieces (the axes of the photographer and the draughtsman, and the symbolic axis of history). When the train crosses a bridge mid-way along its trajectory, the image of the train is shown on the video monitors, which thus redistribute it in space. Simultaneously, this prompts the draughtsman's activity, which lasts only as long as the train is crossing the bridge.

Photographs: Centre de documentation Yvan Boulerice

completed this structure were a camera and a stroboscope. I wonder if you could explain the function of the stroboscope?

TOMAS: In general, photography has been at the root of all my work since 1975, whether directly or through pictorial transcription. As for the stroboscope, I had already made reference to stroboscopic photography in my transcription of *La Durée Poignardée*. It then appeared in all of my work after 1980, which attempts to create a negative discourse. In this work, it functions as a ‘mechanism of negation,’ making it possible for me to trace a negative field. Concretely, I use it to produce a negation of the conventional photograph, in so far as it is an image created by light that reflects off the objects of the universe. In photographs produced with a stroboscope (which I call “ideologically complex and brute”) the light source is turned towards the lens and towards the photographic film. We are thus in the presence of a radiated light. On the other hand, the process of development, for its part, is completely conventional. Thus, from the point of view of the conscious act of negation, conventional photography ‘implodes’ and, significantly, the photographic process is projected into a space which can never be the space occupied by its conventional history because there was a shift from the meaning of the photograph to its context. Its history is, in fact, the history of a process of producing subject/images and not simply the history of light deposited in successive layers through the action of a stroboscope. With such an act of negation, I aim to produce sedimentation, a deposit—and a hole of light (to speak metaphorically)—which functions only as a sign of itself and not as a sign of a (vertical) narrative in a photographic space. We thus arrive at a narrative without a history, because history, from the point of view of conventional photography, has been displaced elsewhere, beyond a negative discourse with respect to its own conventional history, and towards its production strategy. In other words, the stroboscope represents the sign of a transgressive gesture, an act whereby I turn a light source against the history of the photographic, anthropological, and artistic gazes.

CAMBROSIO: What, to remain with the Yajima exhibition for a moment, was the relationship between the stroboscope and the train?

TOMAS: The stroboscope was placed at the end of the rails, just in front of the camera lens. It functioned as a source of light directed not towards a subject (the rails, the train, or the general context of its production), but towards the photographic lens. It was thus a source of pure light. Like the object that was ‘falling’ in the painting exhibited at Optica, the train at Yajima moves in space. As a concrete object, it takes a specific historical form (it is a 1930s

Burlington Zephyr) and we can thus assert that it moves within the time of its own history. Nevertheless, it is no longer an historical object, but an object as process, because its role is that of a subject for the act of photography. It is a subject, however, that can never attain the condition of photographic subject, because between the rails and the camera is the stroboscope, which fills the camera's viewfinder and points towards the lens (which is another historical artifact: an 1860s Harrison Globe lens). The stroboscope thus blocks the train's access, and that of the general context (the photographic subject), to the chemical status of photographic subject/image. The resulting photograph is completely white (complete negative entropy). This photograph is then used as the subject of another transgressive gesture by a draughtsman who is seated behind the camera. As for the draughtsman's role, it is not arbitrary either, because it is situated on the 'track' of a history of the Western gaze. (Fox Talbot, an unskilled draughtsman, used a camera lucida for his drawings in the 1830s before he began his research into photography.) The photograph is thus negated in turn: the draughtsman produces an entirely black drawing (complete negative entropy). The displacement of conventional photographic discourse is twofold: a play takes place between the photograph and the drawing. At stake is the classification of the universe into light and darkness, day and night, presence and absence.

With respect to my earlier work, another change is visible: instead of an object limited to a specifically artistic discourse, there is now an object which truly operates within a cultural, social, political and economic discourse. I say "political," because what is at play in the positive histories of the fields in question, and in the gallery space in which these objects are found, is power. These objects are present as representatives of the strategies of the producer, that confront the strategies of the viewer, which are governed by the conventional history of photography, a history that is simultaneously cultural, social and political. The discourses linked together by the horizontal axis of movement between the role of the artist and the role of the anthropologist are in a vertical relationship, so to speak, with the negative discourse suspended beyond the positive discourses. Objects such as the train and the stroboscope thus undergo a doubling, symbolizing both what they are in their own histories (the Burlington Zephyr and the Harrison Globe lens) and this other, 'non-historical' existence, which is to say what they could be, or would be, in this negative space that is brought into play in the gallery setting.

CAMBROSIO: There is a fundamental difference between your 'history of physics' period and your 'negative history' period. In the former, you already employed a metadiscourse: you did not have direct access to physics but rather to a discourse on physics, which you then articulated to artistic discourse. Now you are both anthropologist and an 'indigenous person' and you are thus also, without mediation, an anthropologist. I would say that the difference is twofold, because not only were you not a scientist before (a physicist), while you are now (an anthropologist), but before you could not be a subject of study within physics (you are not an elementary particle) while now you can be an indigenous person. Another difference is that photography is a technological object of study and not a scientific one. What's more, it operates within a world said to be ordinary, and not exclusively within a laboratory.

TOMAS: The irony of what I do resides precisely in the reversal of this relationship. The result of my work functions, for the moment, within an environment that is just as esoteric as the laboratory. This environment is the art gallery. The effect of work exhibited in a gallery is just as esoteric as the effect produced by physical energy in a laboratory, because, in the end, in an art gallery we don't see the same articulation of photographic operations that we see in the 'realistic' world's frame of reference. In place of this reality, there is a displacement of the positive discourses, which is carried out by means of a 'hyper-realist' discourse (Jean Baudrillard). I have become a simulacrum in a discourse-simulacrum, a model of a model within a model of a model which multiplies in multi-dimensional spaces, because instead of a reference to reality there are, precisely, references to models: of art, anthropology and photography. References to a set of models which extend within a space dominated by the 'panoptical gaze of the scholar.' Faced with the silence of all these voices, which are simulacra of their own histories, we no longer find either the artist or the anthropologist, dissolved by their own gazes, but only an articulation between light and darkness (a basic model of classification). Nevertheless, between light and darkness there is the transgressive gesture, as well as the trains, the lenses, and other objects, which function like toys: stripped of their own histories, they fill up a timeless history thanks to a gesture that relates them to an eternal present.

CAMBROSIO: At the outset of this interview, I attempted to pin down the socio-logical dynamic of your project and you replied by situating it with respect to two fields, the artistic and the academic, which function as social agents of legitimation. Afterwards, however, your comments increasingly followed the path of an inward reflection on your project. You seem to want to avoid analyzing your position within the field of symbolic production and to return to the more reassuring terrain of the internal logic which underlies your work. Insofar as this

observation is true, we might see your anthropological discourse as a ruse, as an attempt to shield yourself as producer from the objectifying discourse of the sociologist.

TOMAS: Not at all. The displacement you detect in my comments was prompted by the need to render intelligible the strategy I adopted with respect to the two fields, both within each and in my movement between them. All artistic, anthropological and photographic forms of knowledge, as we know, represent instances of social activity. While my discourse may seem to privilege an internal logic with respect to an external 'socio-logic,' this shouldn't be seen as a ruse that attempts to remove me from the horizon of the sociological gaze, because one cannot subtract oneself from 'its' field of interest, but only make oneself intelligible in terms of this interest. What I have tried to explain, both in my work and in my response to your questions, is my attempt to pinpoint the question of the education of the Western gaze as it has become clear to me. At the centre of my work is an attempt to subvert the problem that is at the heart of the education of the Western gaze: the inscription of a subject/image. My strategy consists of enquiring directly into the logic of such an inscription. In a world of visual models, my approach defies a system of education; a simple gesture of negation allows me to explore certain aspects of the sociocultural and political anatomy of this question. The success, or lack thereof, of my approach can only be measured by the interest or lack of interest it provokes in others. As for myself, I have never stopped being interested in the socio-anthropological implications of this approach, even when I try to distance myself from them. You mustn't forget that these implications are instances of the socio-logical objectifying gaze. And, after all, your question is also the product of this objectifying interest.

Alberto Cambrosio is a sociologist of science who now teaches at McGill University. In 1984 he taught at the Université du Québec à Montréal.

Translated by Timothy Barnard

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## 1.2 FROM GESTURE TO ACTIVITY: DISLOCATING THE ANTHROPOLOGICAL SCRIPTORIUM

*All writing is an index of law.*

Pierre Clastres<sup>1</sup>

*The place of a tactic belongs to the other.*

Michel de Certeau<sup>2</sup>

“Everything is related to the body,” observes Jean Starobinski, “as if it had just been rediscovered after being long forgotten.”<sup>3</sup> With these words Starobinski draws attention to a recent eruption of literature devoted to the body’s multifarious histories and forms. It is a literature, moreover, that has proliferated to such an extent that one can now speak of a *fin-de-siècle* platitude: the body is no longer ‘object’ (biological or otherwise) but a series of discursive traces. Although one would imagine that ethnography has provided an abundance of material for this evolutionary mutation from chromosome to text,<sup>4</sup> one is surprised to note that the ethnographer has escaped a similar process of textualization, although the authority of one of the principal products of ethnographic activity—writing—has dissolved under the corrosive gaze of a critical textual politics. This paradox is amply illustrated in the case of the “timely” publication of a collection of essays entitled *Writing Culture: The Poetics and Politics of Ethnography*.<sup>5</sup> The collection of articles—boldly presented as “Experiments in contemporary anthropology”—is varied and contradictory in its approach to its subject, and yet its title and introductory essay speak eloquently of a new ethnographic moment—of writing about the writing of culture—which is clearly the product of an explosive mixture of poststructuralist thought, with its emphasis on a textually-based interdisciplinary approach to the production of social knowledge, and an emergent self-reflexivity on the part of anthropologists. As such, the collection celebrates a late-modernist form of natural selection: a self-confessed, apologetic, yet determined predisposition toward shedding “a strong, partial light” or “a defensible, productive focus” on the experimental ethnographic applications of contemporary textual

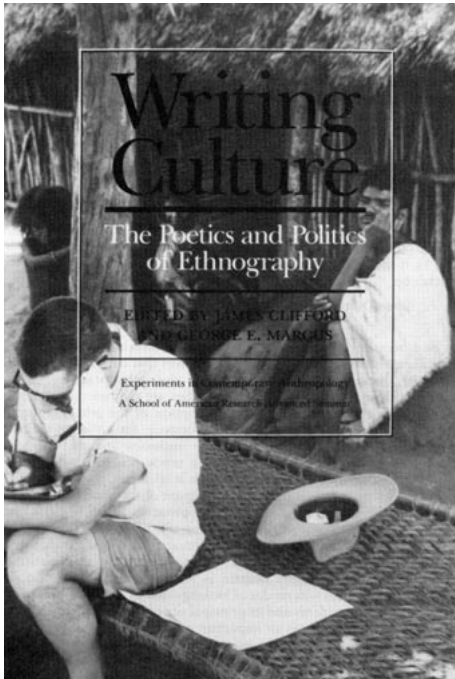
theory and practice, applications clearly (though not exclusively) proclaimed and defended in James Clifford's introductory manifesto on "Partial truths."<sup>6</sup>

Clifford's celebration of a new "emergent interdisciplinary phenomenon" and his assertion that the ideology of the "transparency of representation and the immediacy of experience" has crumbled in the face of an approach to ethnographic texts that proclaims the contested nature of culture and the "artisanal... worldly work of writing" ethnography, highlights ethnography's contemporary "historical predicament."<sup>7</sup> Such proclamations have nonetheless been received with a certain amount of scepticism in a variety of quarters<sup>8</sup> which is understandable given the author's focus on a male-dominated practice of writing to the exclusion of other gendered/indigenous forms of 'ethnographic' inscription. The complex and contradictory nature of this exclusionary focus is amply illustrated by a curious description, at the beginning of Clifford's essay, of a photograph that not only adorns the cover to this self-proclaimed "controversial collection" of "post-anthropological," "post-literary" essays,<sup>9</sup> but also acts as a frontispiece to the collection as a whole.

Our Frontispiece shows Stephen Tyler, one of this volume's contributors, at work in India in 1963. The ethnographer is absorbed in writing—taking dictation? fleshing out an interpretation? recording an important observation? dashing off a poem? Hunched over in the heat, he has draped a wet cloth over his glasses. His expression is obscured. An interlocutor looks over his shoulder—with boredom? patience? amusement? In this image the ethnographer hovers at the edge of the frame—faceless, almost extraterrestrial, a hand that writes.<sup>10</sup>

We are witness in this passage to the contradictory birth of a particular "textualist meta-anthropology," for Clifford's claim that this image is "not the usual portrait of anthropological fieldwork" serves as an originary moment for another history—the history, in his words, of "a hand that writes."<sup>11</sup>

In the following pages, I want to question the political validity of the enterprise launched through this descriptive passage by challenging the notion that ethnography "is always writing," for I believe that one cannot construct critical or oppositional practices on the basis of privileging "literary processes" to the apparent exclusion of all other modes of representational production and reproduction that "affect the ways cultural phenomena are registered."<sup>12</sup> To focus exclusively on writing is to marginalize other "social technologies" (to use the words of Teresa de Lauretis),<sup>13</sup> and in particular other contemporary technologies of



Cover, *Writing Culture: The Poetics and Politics of Ethnography*. Photograph of Stephen Tyler in the field.

Photograph by Martha G. Tyler.

types of ethnographic figures of authority and writerly practices proposed by the current generation of postanthropological writerly theorists.<sup>17</sup> It is only by situating such an intersystemic approach between dominant disciplinary practices that one can engender an alternative identity for an observer and pattern of observation—from the Latin *ob* (over, against) and *servare* (to keep safe, preserve, conserve): *observare* (to watch over physically and morally, to respect, to heed appropriately)<sup>18</sup>—to call into question anthropology’s ‘natural,’ historically sanctioned methodological propensity to mask its often violent origins.

However, it must be emphasized that the choice of vision as a principal site for generating critical or oppositional postanthropological activities is strategic—based as it is on its dominant

observation/inscription that determine and fix the parameters of ethnographic vision by truncating ethnographic practice into an activity that begins with “the first jotted ‘observations’” and ends with the “completed book” whose literary “configurations ‘make sense’ in determined acts of reading.”<sup>14</sup> This process of marginalization is, moreover, clearly at odds with a textual practice predicated, as we have seen, on a visually inspired originary moment. I will argue that the exclusive focus on a writerly system for the representation or even “invention” of culture(s) has important consequences for the development of effective critical strategies and local tactics devoted to the production of alternative forms for postethnographic, postcolonial stories.<sup>15</sup> I argue, further, that this type of literary myopia can only be redressed in the course of a critical reassessment of the observational preconditions of modernist and postmodern ethnographic activity,<sup>16</sup> and that this can only be achieved by embracing an intersystem of hybrid technologies and creolized activities that include, but are not dominated by, the

role in constructing anthropological knowledge of other peoples<sup>19</sup> and a recent resurgence of interest in alternative ethnographic practices rooted in early twentieth century avant-garde art.<sup>20</sup> It is also contingent upon my ongoing personal interest and engagement in oppositional anthropo-visual activities in contemporary visual art.<sup>21</sup>

Clifford has produced a seminal body of essays which have gained a wide audience, influence and currency because of their modernist critiques of anthropological authority, the most radical of which have been concerned with the interpenetrations between French anthropologists and surrealists in the interwar years in Paris and the potential consequences of this cross-fertilization for a contemporary surrealistic ethnography.<sup>22</sup> Although Clifford seems to have retreated, in recent works, from the radical aesthetico-epistemological thrust of his earlier historical and critical ruminations on a surrealistic ethnography, this work still stands at the limits of the current crisis in (Western) representation, as articulated in advanced anthropological debate, and is thus worthy of detailed consideration. It is especially worthy of critical attention since a surrealistic ethnography engages two of the principal contested domains of a Western humanist imagination: Art and Ethnography.

### The Academic Production of “Unproductive” Bodies

*For writing can tell the truth about language, but not the truth about reality (we are at present trying to learn what a reality without language might be).*

Roland Barthes<sup>23</sup>

*Photography displaces, shifts the notion of art, and that is why it takes part in a certain progress in the world.*

Roland Barthes<sup>24</sup>

The appearance of a disembodied hand at the end of a process of defamiliarization in which the ethnographer is refashioned into an extraterrestrial is a powerful, pivotal image. It not only glosses the intertextuality of the ethnographer’s body but it also highlights the exclusionary practices that marginalize less useful bodies—bodies, in other words, that have no apparent disciplinary role in the production of ethnographic and meta-ethnographic Knowledge.

However, such gratuitous figurative violence does not remain unchallenged, for bodies are not necessarily written, invented or fragmented according to such academic stories. In fact, the photograph of Stephen Tyler provides evidence of a more complicated deployment of the body across and between different technologies of observation/inscription (the pen and the camera) and inscriptive sites (the page and the photograph)—evidence suggesting that the privileging of one or other of these technologies/sites not only does violence to the body itself, but also obscures a prime contestatory function of one of these systems, for the body can also be seen. Indeed, the photograph betrays the existence of other figures—a woman and two children—in addition to the two who figure in Clifford’s originary tale. Why, one wonders, are these figures not acknowledged in this originary tale? Are such exclusions to be considered as further examples of Clifford’s gendered postanthropological agenda, a bias that has already attracted commentary from feminist anthropologists and cultural critics?<sup>25</sup> This possibility is certainly endorsed by a further significant omission: Martha G. Tyler is acknowledged as having taken the Tyler photograph—an important observation that does not draw further commentary as to its potential as source for other gendered roles and media histories implicated in the production of ethnographic knowledge. Moreover, the question of ethnography and its exclusive media histories is again highlighted by a cursory reference to two other photographs of prominent anthropological authorities—Margaret Mead (one of the few women who have attained mythic stature in this predominantly male-dominated discipline and who, as a consequence, can be ‘naturally’ accorded a named position) and Bronislaw Malinowski—that serve as additional cornerstones in Clifford’s postliterary manifesto on “the making of texts.”<sup>26</sup> Given the fact that visual representations are of considerable importance in articulating an agenda to reconstitute ethnographic practice, and given writing’s originary role in this story, one can only assume that Clifford speaks with the traditional authority of the academic scribe, that is, from the position of someone who seeks to designate and control a privileged channel of textual production and ethnographic “invention.”

The deftness of hand that has allowed Clifford to begin “not with participant-observation or with cultural texts (suitable for interpretation), but with writing, the making of texts,”<sup>27</sup> has succeeded in establishing sovereign claims in regard to writing and inventing culture(s) by way of an interpretive gesture that renders the figure of the other as an abstract nameless “interlocutor.” Or it has consigned the nameless interlocutor outside of the rebellious and innovative domain of writing (as in the case of the woman and child)—a condition that is unfortunately exacerbated by the graphic layout of the book’s cover, where the underlined portion of the title is positioned (almost as if to emphasize the gestural powers of the hand

that writes) so as to occlude the eyes of the woman in the background.<sup>28</sup> It should therefore come as no surprise, given such an inscriptive emphasis on

*Same: Other:: Ethnographer: Native:: Named: Unnamed:: Writing: Photography,*

that one occasionally discovers anonymous bodies inscribed in photochemical emulsions, testimonies to ordinary lives that have no place in the politics of disciplinary interpretation and the “micropractices of the academy.”<sup>29</sup> These bodies are the neutral or anonymous ground upon which the metadescription of the ethnographer is situated. This point is of considerable importance, for although Clifford reminds us that ethnography’s “authority and rhetoric have spread to many fields where ‘culture’ is a newly problematic object of description and critique,”<sup>30</sup> he fails to note that it is, in fact, its observational practices—its use of techniques of participant-observation—that have allowed for the regeneration of critical approaches in other fields.<sup>31</sup> Thus, it is in terms of the capillary action of its observational practices that ethnography is being transported along the fissures and faults of “culture.” Notwithstanding this important fact, ethnography’s contested domain is not, as one might expect, its observational practices—its modes of looking—but, as Paul Rabinow points out, the Academy and its principal site of inscription: the book.<sup>32</sup>

The figure of the writer is an important motif in recent critical theory, which is not surprising since most of the protagonists who have been engaged in promoting its iconoclastic practices have been concerned with the art of writing. Thus a writer’s presence at the beginning of Clifford’s introductory text signals not only the author’s current genealogy but also his profound failure to take into account the representational breadth and depth of the discipline he is engaged in contesting. Such failures sharpen one’s focus on the connections between the dominance of literary theory in current critical practice, and its influence and control in determining the agenda of a politics of representation as defined within the Academy. Let us not forget, in this connection, that “writing” achieved dominance as a critical practice, in recent critical thought, as a consequence of attempts to forge a “new semiology,” a “science of the signifier,” no longer exclusively devoted to “ideological criticism” and “semiological dismantling” but rather, in Roland Barthes’s poignant phrase, “to change the object itself, to engender a new object, point of departure for a new science.” The move, as Barthes pointed out at the time, was from a practice focused on the construction and deconstruction of ideological signifieds, to practices devoted to the destruction of the sign—an “idiolectology, whose operative concepts are no longer sign, signifier, signified, and connotation, but citation, reference, stereotype.” Although the move was described by Barthes as a shift from

“mythoclasm” to “semioclasm,” the shift was made under the auspices of a “*science of reading*.”<sup>33</sup> Clifford, arriving later on the academic scene, engages directly in a form of ‘ethnoclasm.’

Given the fact that, as Clifford suggests, ethnography’s “historical predicament” is “that it is always caught up in the invention, not the representation, of cultures,”<sup>34</sup> one must nevertheless ask, when faced with anonymous figures such as those occupying marginal positions in Martha Tyler’s photograph, what *de facto* now appears as a rather naive and redundant, but nevertheless crucial question: Who are those others—those “common” and “anonymous” heroes who come “before texts” and before writing; who do “not expect representations,”<sup>35</sup> nor are privileged with an inventive role in the discourses that emanate from the portals of the Academy? Who are those individuals that are occasionally and unexpectedly co-opted by other technologies of observation/inscription to remain dormant until, for one reason or another—perhaps through the operative mechanism of the Barthesian punctum—they are aroused from their anonymity to erupt spontaneously through the ‘self-reflexive blind spots’ of dominant discourses to proclaim a common existence?<sup>36</sup> Who are these ordinary people whose bodies, although transformed and reconstituted by (marginal) technologies of observation/inscription, such as photography, are not accorded an inventive role in speech, “the written,” or “writing” (in the Barthesian senses of these terms)?<sup>37</sup> Who are these other figures that have resisted the interpretative sweep that has uncovered principal areas of pictorial ambiguity and described the gradual literary metamorphosis of ethnographer into scribe, and who wander silently across the stage that has been set for a rewriting of ethnographic history? Who are these figures, finally, that contest the writer’s authorial and authoritative hand, disrupt his strategies, problematize the central function of writing culture, and seriously call into question conclusions that “insist” that ethnography “is always writing?”<sup>38</sup> These questions cannot, of course, be answered, for although these individuals are accorded a productive role in foregrounding and defining the ethnographer’s presence, they are ‘unproductive’ from a meta-ethnographic point of view, for they have no biographical or mythological status (of, for example, the kind that has been ascribed to a Mead or Malinowski)—they have, in other words, no names.

Nevertheless, such figures not only remind us that writing is, as Barthes suggests, peculiar in that it is able to disengage itself from the writer’s body and “*travel far*,” while speech, in contrast, “*smells*,” in that the body lingers around it; but they also celebrate the fact that the referential odour of the body is strong, that “in order to write *about* speech” one is “obliged to *refer* to illusions of experiences, memories, feelings occurring to [the writer] as a speaking

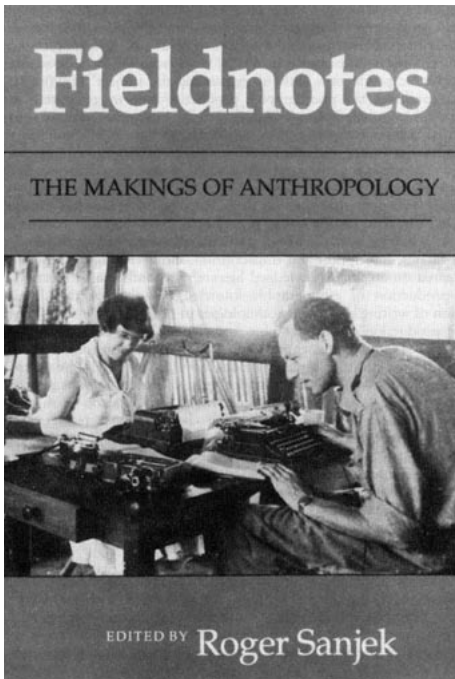
subject.” They do so because, as Barthes points out, “in such writing as that, *there is still a referent*, and it is what *smells* to [the] nostrils.” Similar ‘odours’ are encased in photographs, to be periodically liberated through a punctum in their surface, for one must not forget that photographs are akin to speech—they too have an odour, are “subject to remanence.”<sup>39</sup> Such is the semio-logic of the excluded/anonymous in the Tyler photograph that adorns the cover of *Writing Culture*.

The tenacity of this odour is illustrated in a recent article where Clifford does, in fact, take note of other bodies—but only to insist on their germane ‘structural’ roles in articulating “three scenes of writing” graphically illustrative of “three distinct moments in the constitution of fieldnotes”—inscription, transcription and description—that define processes of producing anthropological Knowledge in the field. He goes on to argue that the uses he makes of such scenes “are less representations of typical activities than images, or figures, standing for analytical abstractions” and that “the abstractions refer to basic processes of recording and constructing cultural accounts in the field.” While it is evident from Clifford’s account that photography is not worthy of a position in these scenes, whose originary moment still remains tied to the elusive “hand that writes,” his argument is grounded in three photographs—of Joan Larcom, C. G. Seligman and Malinowski—that serve as the originary sites or illustrative preconditions for his analytic categories. In fact, they are the photographic scenes that set the textual scene for his scenes of writing, and, as in the case of the Larcom photograph, indigenous figures are *used* to define (i.e., produce) the identity—isn’t one of the “two boys [who] stare straight into the camera” in fact a girl?—of the anthropologist both as ethnographer and scribe.<sup>40</sup> Thus:

What is most extraordinary in the image chosen by Joan Larcom to represent her fieldwork in *Observers Observed* is the sense of confusion it registers. Data inscription appears not as an orderly process of collecting or recording but as an improvisation in the midst of competing, distracting messages and influences. The photo’s play of gazes suggests (1) that the focused ethnographic moment always leaks beyond its frame into other “irrelevant” events; (2) that the ethnographic observer is always her- or himself observed; and (3) that any representation of this messy event, as here the photograph, is itself part of the event. The gazes, directed to the act of writing, to something outside the scene, and to the photographer, signal the confusion of fieldwork, its inescapable reflexivity, and the *struggle* to register data.<sup>41</sup>



Although Clifford argues that the photograph “is itself part of the event,” that “a focus on the interrelations of inscription, transcription, and description need not imply that writing is the essence of fieldwork” and, moreover, that “the three processes marked off in [his] essay account for a good deal of ethnographic production without exhausting the subject,”<sup>42</sup> his agenda occludes the photograph’s productive role in generating meta-ethnographic knowledge on fieldnotes, to the extent that photographs are accorded the same virtual status as the ‘Other’ figures that inhabit their photochemical space—phantoms whose positions serve to conjure up the named presence of the ethnographer ‘as scribe’ in the marked absence of their own identities.



Cover, *Fieldnotes: The Makings of Anthropology*. Cover photograph of Margaret Mead and Gregory Bateson in New Guinea (1938).

Courtesy of the Institute for Intercultural Studies, Inc., New York.

Finally, we note that this article is directed to redressing a hitherto accepted hierarchy in the “basic processes of recording and constructing cultural accounts in the field,”<sup>43</sup> in particular between description and two subordinates, inscription and transcription. However, this rectification is predicated on an unacknowledged hierarchy in both the production and metaproduction of ethnographic knowledge—that of the dominant position of writing over other technologies of observation/inscription used in the production of ethnographic knowledge. Thus, in referring to the typewriter—that quintessential tool of Western civilization and modern ethnography, with its “tap-tap of fieldnotes in the making”—he notes: “To illustrate my third scene of writing I almost chose the famous photo that appears on the cover of this volume: Mead and Bateson in the Iatmul ‘mosquito room,’ facing each other from behind separate typewriters.”<sup>44</sup> However, what is of particular interest in this photograph is not the two figures facing each other across typewriters, but the full range

of Western technologies that are displayed—from a camera and cine-camera, to Mead’s eyeglasses and Gregory Bateson’s wrist-watch—a veritable inventory of Western technologies of spatio-temporal organization and observation. The eclipse of this inventory should serve, yet again, to sensitize critics and historians to the full range of tools that are implicated in the production of anthropological knowledge.<sup>45</sup>

Thus, notwithstanding Clifford’s sensitivity to the fragmentary, invented and contested nature of ethnographic representations—their patchwork of citation, reference and stereotype—his nuanced reactions are, as we have seen, predominantly confined to the making of written texts—confined, in other words, to “the worldly work of writing.” Perhaps it is unfair to question Clifford’s stance and to ask, as Rabinow does: ‘Whose world?’<sup>46</sup>—or alternatively “Who speaks? For what and to whom?”<sup>47</sup>—when we know that Clifford’s avowed position concerns the predicament of modernist ethnography; that he sees his work as opening a “space for cultural futures, for the recognition of emergence”; that his project consists, in other words, of a survey of “hybrid and subversive forms of cultural representation, forms that prefigure an inventive future.”<sup>48</sup> Such sentiments are, however, undermined by the autocratic authority of a violent originary gesture, conjured up by a figure who can also, under these circumstances, be described as a “faceless, almost extraterrestrial” meta-ethnographer, that has foregrounded the *productive* presences of Stephen Tyler, Larcom, Seligman and Malinowski against a background of *unproductive* bodies in a process of constructing an agenda that seeks to contribute to “a practical reflection on cross-cultural representation by undertaking an inventory of the better, though imperfect, approaches currently at hand.”<sup>49</sup> Hierarchies between ‘us’ and ‘them’ or ‘productive’ and ‘unproductive’ bodies, especially when linked with opposing technologies of observation/inscription, alert us to the strategic disciplinary implications of such pronouncements,<sup>50</sup> to the danger of what Barthes refers to as a certain “staging of ideas,”<sup>51</sup> but also to the fact that Clifford’s attempts to forge benevolent interdisciplinary links are disseminated from the dominant location of an institution whose logic and existence (and therefore its collective interests) have been traditionally directed toward sustaining a “civilization of writing”—“writing and speech continuing to be” as Barthes has pointed out, “the full terms of the informational structure.”<sup>52</sup>

This point is of paramount importance, for there is a profound epistemological distinction between speech and its modes of inscription—the transcriptions of the written and the eruptive voluptuousness of writing<sup>53</sup>—and the phenomenological complexity of the photograph—that other inscriptive site that periodically pollutes the purity of writing with the “smells” of bodies.

Writing and photography are thus not only opposed in terms of ‘language’<sup>54</sup>—that is, in terms of different technologies of observation/inscription and inscriptive sites—but also in terms of institutional articulation and its relationship to an initiated body: on the one hand, the learned corporeal body, and on the other, photophilic or virtual bodies. Although a history of the photophilic body has yet to be written (and one thinks here of ‘the body that photographs’ as well as ‘bodies photographed,’ for they are both virtualized entities in a Utopian civilization of writing), one notes for the moment that the body photographed is a corporeal body spatio-temporally and chemically transformed into an indexical icon. Such a body no longer ‘hooks’ across a common homogeneous communications space of partnership produced by speech,<sup>55</sup> but rather through the temporal recesses of visual memory: ‘Who is this person?’ or ‘Who are these people?’ Thus, in spite of Clifford’s claims that writing disrupts the sovereignty of a visualist mode of ethnographic knowing that confers “on the other a discrete identity, while also providing the knowing observer with a standpoint from which to see without being seen, to read without interruption,”<sup>56</sup> there is considerable ‘visual’ evidence to suggest, given the photographic location for Clifford’s founding postanthropological moment, that such a claim is a good deal more problematic than Clifford is willing to acknowledge. This contradiction raises specific questions about photography’s central tactical role and strategic marginality in the production of both anthropological knowledge and metaknowledge in the shifting contexts of the field and the university or research institute.

Marginality breeds disciplinary incongruity in the case of a technology that invariably reasserts the presence of the ordinary through a temporal “power of authentication” that, as Barthes pointed out, “exceeds the power of representation.”<sup>57</sup> It is this power of authentication to disrupt the figurative spaces of ethnographic writing that allows for a continual challenge to uncritical meta-ethnographic practices and questionable relationships with dominant technologies of representation. Thus, despite admirable claims to the contrary and the active promotion of a dialogic space of ethnographic understanding, Clifford’s gloss of photography and its products ‘speaks’ of an important lacuna in attempts to portray the current crisis of representation, a lacuna that Barthes registered in passing when he noted that the photograph “corresponds to a decisive mutation of informational economies.”<sup>58</sup> While this is not the place to pursue the full ramifications of these points, it does allow one to dislocate the definitive writerly terms of the current debate over the crisis of representation in anthropology.

Rabinow has pointed out that “If we attempt to eliminate social referentiality, other referents will occupy the voided position.” These ungrounded referents, he goes on to argue, are

anchored in Western traditions of ethnographic representations and metarepresentations: “The metareflections on the crisis of representation in ethnographic writing indicate a shift away from concentrating on relations with other cultures to a (nonthematized) concern with traditions of representation, and metatraditions of metarepresentations, in our culture.”<sup>59</sup> This dislocation of the problematic representational relationship ‘between’ cultures and Clifford’s autocratic and ungrounded relationship to ‘marginal’ technologies of observation/inscription and related inscriptive sites creates profound epistemological and political contradictions in his postanthropological agenda. These contradictions cannot be bridged by the utopian rhetoric of inventive futures. Further questions of a methodological nature can also be raised in connection with Clifford’s brand of interdisciplinarity, its relationship to a surrealist ethnography, and their postulated generative roles in the postanthropological disruption of Western traditions of ethnographic Knowledge.

### From Gesture to Activity

*However, beneath the fabricating and universal writing of technology, opaque and stubborn places remain. The revolutions of history, economic mutations, demographic mixtures lie in layers within it, and remain there, hidden in customs, rites, and spatial practices. The legible discourses that formerly articulated them have disappeared, or left only fragments in language. This place, on its surface, seems to be a collage. In reality, in its depth it is ubiquitous. A piling up of heterogeneous places. Each one, like a deteriorating page of a book, refers to a different mode of territorial unity, of socioeconomic distribution, of political conflicts and of identifying symbolism.*

Michel de Certeau<sup>60</sup>

One finds the following citation from Barthes’s 1972 article “Jeunes chercheurs” at the head of Clifford’s essay “Partial truths”:

Interdisciplinary work, so much discussed these days, is not about confronting already constituted disciplines (none of which, in fact, is willing to let itself go). To do something interdisciplinary it’s not

enough to choose a “subject” (a theme) and gather around it two or three sciences. Interdisciplinarity consists in creating a new object that belongs to no one.

The location of this citation is significant, for it immediately raises questions of position and method, questions that tend to frame and problematize the generative locale of Clifford’s meta-ethnographic project, which we understand as “actively situated between powerful systems of meaning,” such that it can pose “its questions at the boundaries of civilizations, cultures, classes, races, and genders.”<sup>61</sup>

At various points in his writings Clifford refers to a new ethnographic moment in terms of “interdisciplinary phenomenon,” “hybrid textual activity,” “collage,” “modernist collage,” “heteroglossia” or “surrealist.”<sup>62</sup> These designations, for the most part undefined (with the notable exceptions of Bakhtinian heteroglossia and surrealist collage methodology), reference in turn a transgressive disciplinary activity and its various modes of textual construction. However, the components of this moment do not necessarily generate the elusive new interdisciplinary object—or any other ‘new’ object for that matter. In fact, they may mask, as we have already seen, repressive authorities operating in terms of well-demarked academic positions. Rabinow has drawn attention to the eclipsing of position in Clifford’s writings. While pointing out that “the voice from the campus library has been a salutary one,” Rabinow cautions that Clifford fails “to use self-referentiality as anything more than a device for establishing authority”: “He reads and classifies, describing intention and establishing a canon; but his own writing and situation are left unexamined.”<sup>63</sup> However unjust or harsh this type of criticism might appear in light of Clifford’s agenda, Rabinow is nevertheless correct in focusing on this institutional anomaly, for it resurrects the spectre of “positioned utterances”<sup>64</sup>—but in ways unforeseen by Clifford.

In the first place, as Rabinow argues, by focusing on the production of written texts as opposed to the production of observations in the field, Clifford has aligned himself with a tradition that is most forcefully ensconced in the library—the most potent of all symbols of the Academy.<sup>65</sup> Second, a strategy that privileges writing is fraught with danger; ethnographic representations are not solely the product of written words, they are produced by a variety of other contemporary technologies of observation/inscription such as photography, film, television and video. In turn, these technologies are deployed in relation to Western technologies of transportation—the most conspicuous of which have been railways, steamships, aeroplanes and automobiles. Together, these technologies constitute and institute specific techno-cultural

spatial practices that are not only directly implicated in the visual construction of the worlds we inhabit, but are impregnated with shifting social and symbolic values. As such, they provide the *preconditions* for the production and reproduction of Western-dominated practices of ethnographic observation and anthropological knowledge.<sup>66</sup> Finally, the privileging of the book as the nexus for interdisciplinary activity precludes the possibility—notwithstanding claims to the contrary<sup>67</sup>—of truly oppositional transdisciplinary and transacademic *activities*, a possibility that is also circumvented in Clifford's most radical challenge to the tradition of a holistic anthropology—a surrealistic ethnography grounded in collage techniques.

Clifford's adoption of a neo-surrealist ethnographic practice,<sup>68</sup> with its threats of disrupting and enriching the worldly practices of anthropologists or others engaged in intercultural activities, draws its intellectual sustenance from a history of the interactions and collusions between ethnographers, writers and artists in the French avant-garde of the inter-war years—a history now inscribed and preserved in books, journals, various forms of archival material, or alternatively as a series of oral reminiscences subject to transcription and housed in museums and libraries. The Anglo-American anthropological tradition, in contrast, has never had the same type of intimate relations with the avant-garde that Clifford has traced in the modern French anthropological tradition. The historical limitations of this modernist form of ancestor worship are compounded by a failure to take into account recent transformations in the institutional foundations of contemporary artistic practice, in particular the creation of Departments of Fine and Visual Arts within the university system and their relationship, if any, to the rise of a professional artistic ethos and the demise of a vocational *consensus gentium*.

Modernist ancestor worship, coupled with a failure to address institutional and stylistic transformations in the visual arts, seriously undermine Clifford's claims to plot critical or contestatory interdisciplinary strategies. First, it is evident that Clifford envisages interdisciplinarity as a conduit for the transportation of literary models across disciplinary fields. Thus we find, for example, that his most radical neo-surrealist meditations are still loosely tethered to the ethnologized literary activities of intellectual polymaths such as Michel Leiris.<sup>69</sup> This form of interdisciplinarity is a world removed from other types of contestatory strategies, such as those implicated in contemporary artistic work devoted to unravelling the connections between representation, gender and race, or those specifically devoted to exploring the construction of identity and ethnicity. Second, Clifford's interdisciplinary vision is predicated upon the decontextualizing and universalizing of early twentieth century European artistic practices, as exemplified by the journal *Documents*, with its notable coterie of radical intellectual writers

(including Leiris). This decontextualization is of more than topical interest for it also implies a romantic adherence to the artistic ethos of an anterior epoch when artistic and literary training/practice were considered to be vocational pursuits, as opposed to the now widespread propensity to pursue kindred activities under the pedagogic authority of the Academy. Thus, in perhaps his most provocative essay, “On Ethnographic Surrealism,” we find Clifford drifting from a predominantly formal methodico-poetic definition of what one assumes to be a precondition for surrealist experiences, to ‘artistic’ and finally ‘literary’ prototypes for the surrealist moment in ethnography—a moment that is nevertheless continuously conceived in writerly terms, as we might expect, given Clifford’s investment in the world of the scribe:

The surrealist moment in ethnography is that moment in which the possibility of comparison exists in unmediated tension with sheer incongruity. This moment is repeatedly produced and smoothed over in the process of ethnographic comprehension. But to see this activity in terms of collage is to hold the surrealist moment in view—the startling copresence on Lautréamont’s dissecting table. Collage brings to the work (here the ethnographic text) elements that continually proclaim their foreignness to the context of presentation. These elements—like a newspaper clipping or a feather—are marked as real, as collected rather than invented by the artist-writer. The procedures of (a) cutting out and (b) assemblage are of course basic to any semiotic message; here they are the message. The cuts and sutures of the research process are left visible; there is no smoothing over or blending of the work’s raw data into a homogeneous representation. To write ethnographies on the model of collage would be to avoid the portrayal of cultures as organic wholes or as unified, realistic worlds subject to a continuous explanatory discourse.<sup>70</sup>

Having brilliantly outlined, in the earlier pages of his essay, the historical relations between the surrealist movement and French ethnographers of the inter-war period, Clifford then mistakenly assumes that the formal procedures of surrealism are to be defined solely in terms of collage methodology, an assumption made without any detailed consideration of collage’s relationship to alternative modes of exploring and disseminating the ethos of surrealism, most notably ‘automatic writing’ and ‘frottage.’ It is, moreover, an assumption that fails to account historically and theoretically for the use of a similar methodology by cubist or constructivist artists and, furthermore, it automatically posits this methodology’s trans-historical status to the extent that it is naturalized as a necessary instrument in a contemporary postliterary

ethnographic poetics.<sup>71</sup> This sets the stage for Clifford's suggestion that "Ethnography is an explicit form of cultural critique sharing radical perspectives with dada and surrealism," and his claim that "Instead of acquiescing in the separation of avant-garde experiment from disciplinary science, I reopen the frontier, suggesting that the modern division of art and ethnography into distinct institutions has restricted the former's analytic power and the latter's subversive vocation."<sup>72</sup> Clifford has unfortunately transplanted classic stereotypes in this seminal statement: a subversive (artistic) vocation versus the analytic power of a "science" are transposed into an analytic artistic practice versus a subversive science. However, this transposition can provide little motivation to investigate the persuasive ideological forces that shape and empower disciplines through the systematic spatial deployment of thought in terms of two- and three-dimensional images; nor does it motivate a quest for a critical politics grounded in the activities of a discipline whose observational technologies and methodologies are inscribed in spatial practices that are the preconditions to "first jotted 'observations.'" In other words, there is no attempt to turn discourses 'inside out' and subvert (as opposed to transpose) stereotypes in order to explode antagonistic disciplinary practices into critical oppositional activities, with the object of disrupting what Edward Said has aptly described as the "worldliness" of anthropology and its various modes of "*being anthropological*."<sup>73</sup> Moreover, this transposition does nothing to challenge and unravel anthropology's fundamental humanitarian conundrum: the conflagration of innocence that sustains the "being anthropological" of Anthropology. The conundrum is, as Said has poignantly observed, more of a double bind: "For, in fact, there is no way... of apprehending the world from within our culture (a culture... with a whole history of exterminism and incorporation behind it) without also apprehending the imperial contest itself."<sup>74</sup>

Clifford's failure to challenge fundamental disciplinary stereotypes allows existing hierarchies to remain intact under the benevolent authority of an interdisciplinary discourse that seeks to transgress but not redress. Disciplines and genres are impregnated, under its auspices, with an ideology of a transnational libertarian 'literature' transported on designated canonical inscriptive sites—the book and journal—along avant-gardist or advanced intellectual thoroughfares that follow the fissures and cracks of "culture," this "newly problematic object of description and critique,"<sup>75</sup> from disciplinary domain to disciplinary domain. This type of transposition can only result in benevolent colonization governed by a surrealist methodology whose aspiration is to promote an ethnographized version of the modernist dream of 'aesthetic freedom'—the "unclassified, unsought other":



The surrealist elements of modern ethnography tend to go unacknowledged by a science that sees itself engaged in the reduction of incongruities rather than, simultaneously, in their production. But is not every ethnographer something of a surrealist, a reinventor and reshuffler of realities? Ethnography, the science of cultural jeopardy, presupposes a constant willingness to be surprised, to unmake interpretive syntheses, and to value—when it comes—the unclassified, unsought other.<sup>76</sup>

Why, one wonders, reshuffle reality as opposed to contesting it in the name of other realities—for a consequence of such reshuffling is that there is little attempt to consider critically other Western technologies of observation/inscription and systems of representation, let alone the technologies and representational systems used by other peoples. Must a postanthropology be solely defined in planar terms (as in the case of the page of a book or Lautreámont's dissecting table), or might it be considered as operating in three-dimensional spaces permeated with the odours of substantial bodies? If so, why should surrealist methodology serve as the *modus operandi* for this activity, as opposed to other contemporary modernist and postmodernist artistic practices, such as performance art (with its highlighting of the body and its anti-object politics), or installation art forms (with their critically situated dialogues with institutional, urban and/or rural spaces)? What role is there in a surrealist ethnography for the cultural methodologies of other peoples? Is the arrow of acculturation to remain, as in Clifford's version of a postanthropology, unidirectionally sexed and disciplined? Such questions have largely been ignored in the endless intra-academic traffic in books, articles and reviews. As a consequence, statements such as "It has long been asserted that scientific anthropology is also an 'art,' that ethnographies have literary qualities" stand unchallenged.<sup>77</sup> This situation is reinforced when Dada's geographically and intellectually dispersed avant-garde agenda is restricted, (in Clifford's various ruminations on the predicament of culture) to an exotic pastiche of local Parisian histories of art and anthropology presented in book form.<sup>78</sup> It is not surprising, then, that the library and Academy remain the most 'natural' locales for this particular blueprint for interdisciplinarity, or that its contradictory meta-ethnographic products should be linked, in the current intellectual climate, to a postmodern 'retro style' of reasoning.<sup>79</sup>

Although the Academy is increasingly the privileged site for the celebration of ethnographic/artistic practices and representations (under the benevolent authority of a print culture), one prominent Parisian has voiced an opinion that highlights the paradox of basing oppositional practices on a too narrow definition of writing and the inadvertent/problematic consequences

of historically decontextualized avant-gardist academic gestures. In May 1975, during an interview that explored his response to the surrealist movement, Barthes commented:

In my eyes, that is perhaps what is best in the Surrealists: to understand that writing doesn't stop with the written, but can transmigrate into behavior, actions, activities, into private life, daily life, *what is done*: there are writings of life, and we can make certain moments of our life into actual texts, which only our friends may read. It's probably this idea—its presentiment—that gives the *friendship* of the Surrealists an almost textual importance (whereas their banding together is usually interpreted as an act of terrorism): the Surrealist group was itself a textual space. What still bothers me, however, is that this “lived” textuality (where the opposition between the book and life, practice and speculation was abolished) took on in their case, as far as we know, a *literary* allure: when acted out, Surrealism was always a *gesture*, not a *fiction*.<sup>80</sup>

Barthes's understanding of a “lived” [surrealist] textuality” pinpoints the methodological limits of Clifford's postanthropological agenda. Why should one privilege academic methodologies, in this case interdisciplinarity,<sup>81</sup> over other types of transdisciplinary activities, such as hybrid or creolized activities<sup>82</sup> that can be more conveniently grounded in relation to the diversified technological resources, and cultural/ethnic pluralism of the non-academic world? Indeed, what are the differences, if any, between these potentially transgressive disciplinary gestures and creolized activities?

Interdisciplinarity, as understood by Bateson, perhaps one of the foremost Anglo-American interdisciplinary polyglots of his generation, and by Clifford in so far as he advocates a new intra-academic “science of cultural jeopardy,” leads to a ‘postmodern’ retooling of ethnographic practice through the adoption of an early twentieth century artistic methodology.<sup>83</sup> Legitimation is thus no longer to be sought in terms of a disciplinary consensus as to what constitutes a correct or truthful ‘picture’ of the elusive Other, either by way of conventional tools of observation (of which photography is one) or accepted ‘scientific’ methodology,<sup>84</sup> but rather in terms of an archaic avant-garde practice that has itself been refined and sharpened in a literary way. This new science's interdisciplinary superiority is based, then, on advanced literary technologies and theories, the transformative powers of which are displayed (and here we mutate back into the zone of “being anthropological,” but now under the sign of a different authority) when Western authorities are figuratively transubstantiated into named but “faceless” extraterrestrials, while indigenous bodies are reduced to particular but nameless

ciphers. An intellectual dependency is cultivated, in parallel with most other colonial situations, by way of superior literary technologies and analytic procedures whose metonymic relation to the Academy replicates the Academy's relation to a civilization of writing. However, the fundamental paradox in this process is that this 'new' exotic game is played on a visual site (a common photographic "dissecting table"), while literary rules tend to neutralize its disruptive oppositional potential.

On the other hand, creolized or 'third' cultural activity can be understood to be generated outside of the Academy (a specific subculture) or, at the very least, between dominant academic sites and practices in a manner analogous to how third cultures are generated between dominant cultures according to Bateson's 1944 article "Pidgin English and Cross-Cultural Communication." In that article, Bateson describes hybridity—in the form of linguistic creolization—as generating a rudimentary "third" independent cultural domain or utopia: "Another world" in which individuals can "communicate fully and richly, but the matter of their communication is not closely related to the system of life in which either of [the communicants] grew up."<sup>85</sup>

... Pidgin, in spite of its hybrid origin, constitutes something new. The language and its tones of voice and the things that are said in it are a rudimentary third culture, neither native nor white, and within the conventions of this third culture the white man and the native can meet happily, though the culture is germane to neither of them.<sup>86</sup>

Such interstitial (third) cultures are worth investigating further as potential sources and models of critical oppositional activities that can contest, in the name of other realities, postanthropological writerly practices.<sup>87</sup>

The idea of a 'third culture' can be enriched to take account of the intercultural invention of oppositional 'third' activities by considering the pidgin world's cultural trans-heterogeneity as an exemplary site for the invention of 'third' identities and ethnicities along the lines proposed by Lee Drummond in his application of Derek Bickerton's work in creole linguistics to the domain of polyethnic cultures. Drummond has proposed a theory of the cultural continuum—"overlapping sets of transformations, ... continua" or "intersystems"<sup>88</sup>—based on a creole metaphor of culture that critically links ideas of (linguistic) System and Culture, as distinguished from more mundane models of discrete natural languages and cultures. In his words:

The concept, “cultural system” or “culture,” will have to be redefined so that a particular human population (“society”) is no longer thought to possess an ideational component (“culture”) characterized by uniform rules and invariant relationships. The “elementary structure” of such a cultural system is not an isolated proposition, but an intersystem—the pragmatic residue of persons seeking to define their identity *vis-à-vis* one another. The systematic nature of culture is thus to be found in relationships which, through a series of transformations, connect one intersystem to another. A cultural continuum, like a linguistic continuum, may be identified by inserting arbitrary boundaries within a transformational series. Structural linguistics inspired a structural metaphor of culture as in the work of Lévi-Strauss and others; creole linguistics could suggest a creole metaphor of culture that replaces invariance with transformation, boundedness with internal variation, and centre with periphery.<sup>89</sup>

Drummond’s theory, in particular his insights concerning the invention of identities and ethnicities along a cultural continuum, can lead to a more fertile approach to the question of oppositional postanthropological activities, especially when considered in relation to Bateson’s notion of third culture, since it could then account for the invention of new identities and ethnicities, while the model of a cultural continuum might also serve to conceptualize, within a common frame of reference, the relations between technologies of observation/inscription and inscriptive sites. As a first step, one could limit the use of “creole,” in the interests of terminological clarity, to those semiotic processes connected with the generation of identity and ethnicity, while ‘hybrid’ might more profitably be linked to the functional architecture of ‘third’ cultural technologies. This would allow parallel terms to be used differentially in relation to the worlds of peoples and things. The two domains could then be treated as interlinked by way of a ‘series of transformations’—of a logical (i.e., design) nature—that would foreground the relationships between ‘third’ cultural configurations, the invention of new identities, ethnicities and hybrid technologies of representation. This approach to oppositional trans-academic cultures would circumvent the confusing effects of opposing and contradictory technologies of observation/inscription operating in Clifford’s ruminations on postethnography, especially since these contradictions seem to indicate that postethnographic practices must take account of the interconnections between systems of representation, the production of ethnographic and meta-ethnographic Knowledge, and the generation of new (authorial) identities.

Such an approach allows one to recast the tantalizing question of postanthropological oppositional practices. First, one must begin to treat representation as an intersystemic or multi-dimensional sociotechnological System (a System of Representation) composed of at least two interconnected cultural continua: the one consisting of interrelated technologies of observation/inscription in which observers are considered to be integral components (a Culture of Representation); the other, an Image Culture composed of a multitude of circulating representations. The two ‘Cultures’ must function as a System governing the production and circulation of images. It is important to note, in the case of the Culture of Representation, that its interrelated (inter)systems compose a continuum of technologies of representation consisting of (to mention only those Western systems associated with the production of two-dimensional visual images) typographic, photographic, electro-photographic, filmic, televisual and video technologies, through which a given image might circulate ‘heteromaterially,’ while its intensity and pigmentation relations “remain [relatively] unchanged.”<sup>90</sup> Such an intersystemic approach to representation holds substantial promise for developing alternative hybrid technologies which could serve as powerful challenges to conventional postanthropological positions that favour writing and its derivatives as the dominant channel for postliterary ethnographic practices.

Secondly, one must begin by breaching (as opposed to transgressing) specific disciplinary boundaries *and* technologies of observation/inscription in order to create and engage ‘third culture’ configurations. One must begin, for example, as Clifford has correctly indicated, to *move* between art and ethnography, the two most active disciplines governing the representational production and reproduction of Western culture—but not, however, because of a possible fertile conjunction of radical perspectives for germinating alternative subversive practices of ethnographic writing, but rather because of the former’s two- and three-dimensional exploration of Western processes of visualization and the latter’s more or less successful comparative mapping of the limits of Western ‘cultures.’ To move between these disciplines—to examine, compare, and/or question their observational technologies and representational practices—is to begin to investigate their diverse methods of organizing vision and the varied political, economic and technological preconditions for their scopic regimes.<sup>91</sup>

There are other good reasons to locate generative third cultures in relation to a ‘moment and movement’ between art and ethnography.<sup>92</sup> Drummond’s cultural intersystems—“the pragmatic residue of persons seeking to define their identity *vis-à-vis* one another”—are often mediated, manufactured and duplicated by powerful technologies of observation/

inscription and representational practices within mainstream Western cultures. However, the cultural and cognitive parameters of these technologies are frequently tested at the limits of these cultures, and experimentally modified and reconstructed by indigenous artistic practices or the inventive activities of other peoples. It is not surprising, therefore, that art and ethnography, notwithstanding their traditional generative roles in sustaining a dominant modernist scopic regime (for a serious challenge to a Western authorial point of view, in the name of other visions, has just begun), should provide fertile sites to launch a quest for postdisciplinary versions of Barthes's elusive "new object."

### Conclusion: On the Art of the Postethnographic Look.

*One could perhaps say that certain ideological conflicts animating present-day polemics oppose the pious descendents of time and the determined inhabitants of space.*

Michel Foucault<sup>93</sup>

*... no discipline, no structure of knowledge, no institution or epistemology... can or has ever stood free of the various sociocultural, historical, and political formations that give epochs their peculiar individuality.*

Edward Said<sup>94</sup>

Said reminds us that "words like 'representation,' 'anthropology,' and 'the colonized' are embedded in settings that no amount of ideological violence can dismiss. For not only do we immediately find ourselves grappling with the unstable and volatile semantic ambiance they evoke, but we are also summarily remanded into the actual world, there to locate and occupy if not the anthropological site then the cultural situation in which anthropological work is in fact done."<sup>95</sup> However, it is now necessary also to go beyond anthropology and situate 'invented cultural futures' in the spaces in which they are to be postulated and constructed, because the Academy cannot provide an adequate context to sustain the types of activities and technologies that must form its basis. One must seek change not only through the book and dissecting table, but also through lived activities that have transgressed the page; not only through contested discourses on Man and Aesthetics, but also through the construction, control and flow of

ethnicity and identity across cultures and along the fissures and faults of a given culture, as well as through the System of Western Representation, with its organizational role and function in sustaining geopolitical dominance from the local to the transnational. However, as Martin Jay suggests, this must only be considered a beginning, for there remains the difficult task of ‘envisioning’ and constructing alternative observational logics and technologies that can effectively articulate a “third” domain of polyethnic, polygendered activity.<sup>96</sup> The first step in this direction is to jettison the book as the dominant vehicle of a postcolonial practice. One must, in other words, at the very least seek another ‘look’ for postethnography. It is only by these means that one can give form to late twentieth century oppositional cultures that are the local, contingent and momentary trace-effects of transdisciplinary counter-strategies. If these choices are made, and these strategies adopted, then “once again,” as Said has eloquently argued, “*representation* becomes significant, not just as an academic or theoretical quandary but as a political choice.”<sup>97</sup>

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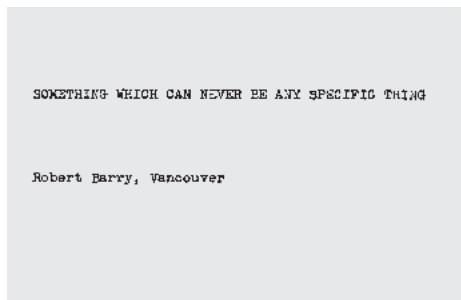




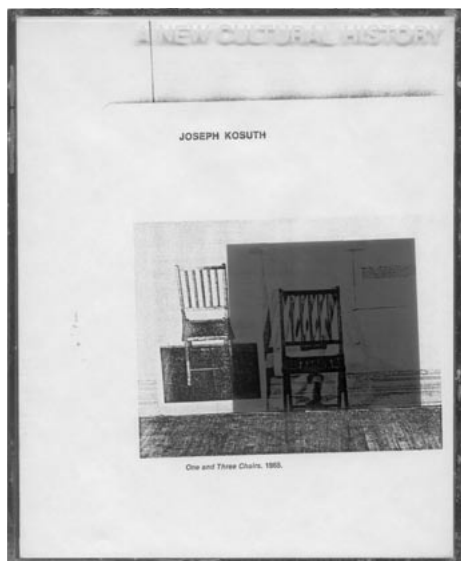
## POSTSCRIPT

Today art is well integrated in the university. It has established relationships with a number of old and new disciplines such as Art History, Cultural Studies, Visual Studies, Communications Studies and Interdisciplinary Studies. The disciplines are porous, ideas circulate with increasing ease, and art is taught by university-trained professionals. But in the early 1970s, Visual Arts was a relatively new academic discipline with few universities offering graduate studies in the subject. For a period between the late 1960s and late 1970s there was a migration of students from vocational art schools to the university. People who moved between the two suddenly found themselves caught between different kinds of teaching institutions and faculty who were themselves trained in the older art schools. But teaching practices changed because they were recontextualized in an architectural matrix that housed many disciplines under the same roof or in close proximity, and the formation of the artist was undertaken in a context of neighbouring, yet accessible domains of knowledge. In addition to a standard art curriculum, the student was introduced to new academic components consisting of different subjects (philosophy, psychology, anthropology, sociology, history and the sciences), as well as different methodologies and modes of visualization.

Often it is the distinction between the old and new—between different pedagogic models, and architecturally defined working spaces—that creates the greatest unease and sense of dislocation, even disorientation in a new student. When I moved back to Montreal in 1972, I had just spent four years in a very conservative London art school under the apprenticeship of a curriculum that was focused on the development of manual dexterity in the basic traditional pictorial practices: drawing, printmaking, sculpture and painting. The atmosphere was clearly anti-academic in terms of how knowledge was organized and presented in a university. In contrast, intellectual development was piecemeal and individualistic. It is important to remember today that 1960s art school ideologies were predominantly anti-institutional in form and were permeated with the ethos of a bohemian/avant-gardist iconoclastic lifestyle. This is especially true for the years immediately following May 1968. Although I had begun to break away from traditional practices through machine-tooled sculpture by the time I moved to Montreal, they were still part of my working universe, as was the general vocational ideal-



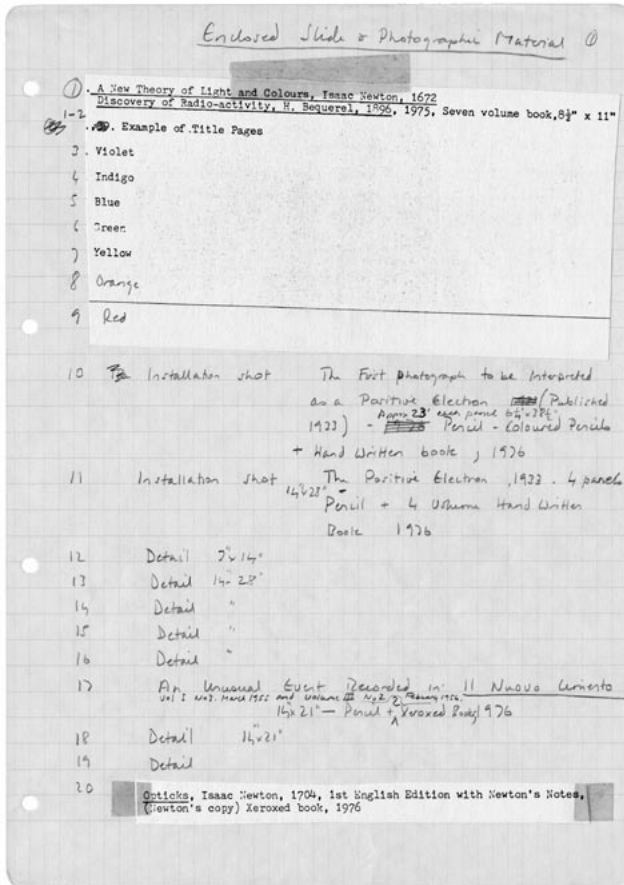
Robert Barry, *SOMETHING WHICH CAN NEVER BE ANY SPECIFIC THING*. Barry's contribution to the 995,000 catalogue and exhibition, 1970.



David Tomas, *A New Cultural History*, 1979. Kodak filter (red), Photocopy, Letraset and Plexiglas box.

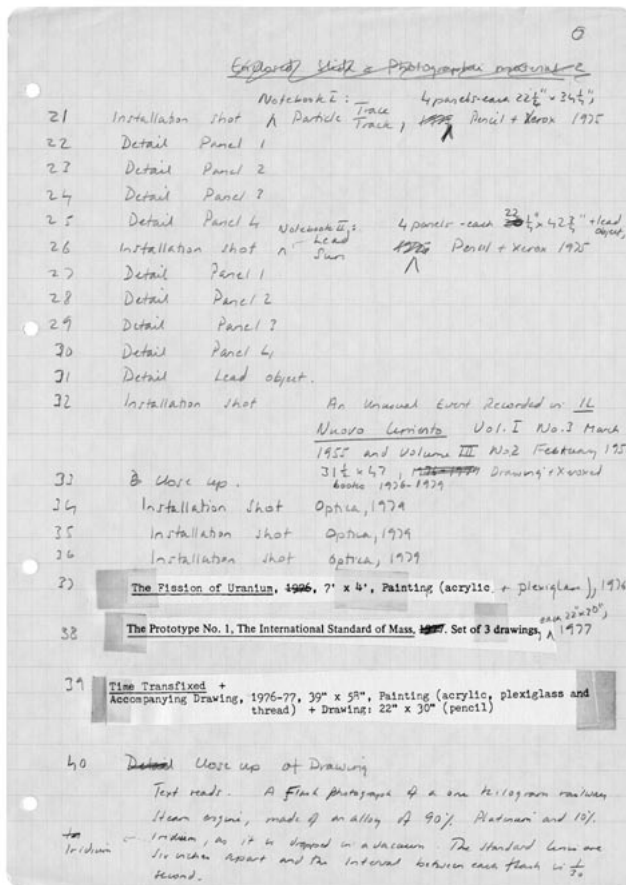
ogy of the art school with its more intimate relationships between artist/teachers and students. Although Conceptual art had not filtered through to the particular school I was in, its location in a large cosmopolitan city had already created a fertile intellectual environment for its reception. A shift in context and continents created a situation of cultural dislocation and set the stage for a new set of intellectual and practical engagements. However, these engagements have always been partial and suspect, given a prior process of vocational acculturation. This ambiguity and unease created the state of instability and dislocation that governed the trajectory of future works. Nevertheless, it was in a climate of conceptual questioning and epistemological uncertainty that I decided to pursue a masters degree in the history of science. I chose this discipline because it was implicated in the evolution of ideas concerning the nature of the physical world, in particular the relationship between the visible and invisible. This choice was also motivated by an interest in scientific apparatuses, and the scientific uses of photography, with its different pictorial practices, codes and unusual subject-matters. Together they raised questions about the conventions governing the construction and presentation of knowledge—questions that were intimately related to the problem of readability and intelligibility.

Contact with Robert Barry's invisible and telepathic works, Joseph Kosuth's *One and Three Chairs* (1965) and Bernar Venet's 'copies' of Physics books and articles, etc., as well as graduate

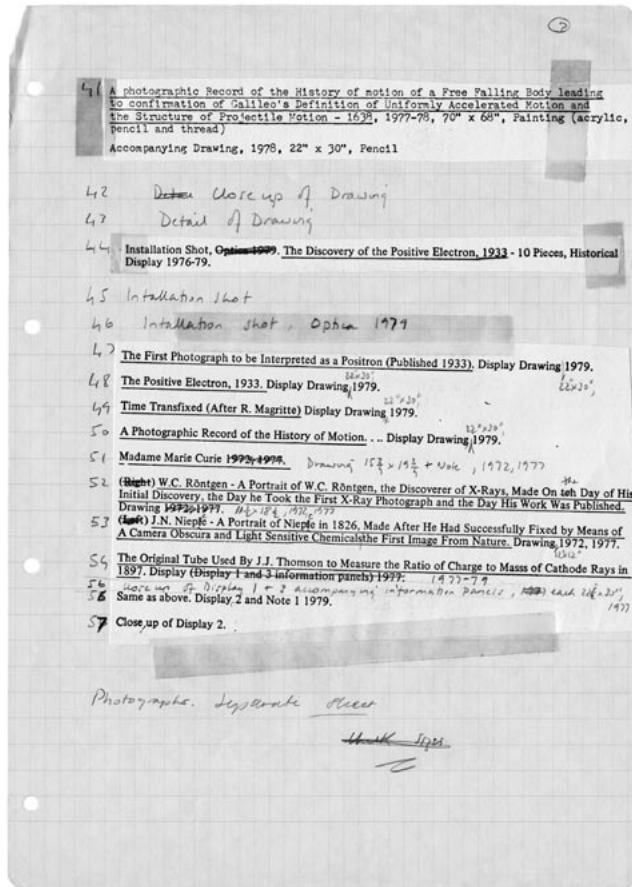


David Tomas, A draft slide list of works from 1972-1979. The draft contains a list of works relating to the history of physics.

courses in the history and sociology of science, pointed to different kinds of relationships that might exist between art and other fields of knowledge. Stimulated and intrigued, I began to investigate these possible relationships within the parameters of an eclectic field of interests (revolutionary histories, photography, experimental film, Nouveau Roman, and instruments of science and technology). It was not long before my understanding of the historical evolution of disciplinary practices created improbable tensions and contradictions with my experience of Conceptual art's synchronic pictorial practices. These tensions and contradictions forced me to concentrate my attention on the possibilities of different narrative forms in relation to science



and history. Ironically, but not surprisingly, given my field of interests and my concentration on Conceptual art's disciplinary limitations, this question then served as the basis for the production of a series of 'pictorial' works. The most interesting of these were permeated with a heightened historical awareness that was manifested through the quasi-disciplinary construction of physical and psychic realities. However, I soon found myself working in a manner that was not solely rooted in an artistic discipline, or in a discipline like the history of science (or anthropology later on in the 1980s). The reasons for this displacement are interesting, as are its consequences, for they are bound up with the question of subject-mat-



ter in art and the conventions governing the formatting, archiving and dissemination of knowledge in academic disciplines.

Many of the visual works that I produced between 1975 and 1980 were conceived in relation to questions concerning the status of academic knowledge and the forms of its presentation. They were therefore less 'pure' and contextually distilled than the works of Venet that I was familiar with. In works such as *Madame Marie Curie* (1972/1977) and *Nuclear Religion* (1975/1980), I developed parallel and fictional contexts and embedded original items in



David Tomas, *Joseph Nicéphore Niépce*—  
A portrait of Niépce in 1826, made after he had  
successfully fixed by means of a camera obscura  
and light sensitive chemicals the first image from  
nature. 1972/1977. Pencil drawing and letraset.

Photograph: Richard-Max Tremblay.



David Tomas, *Madame Marie Curie*.  
1972/1977. Pencil drawing, hand  
written and typed notes.

Photograph: Richard-Max Tremblay.



David Tomas, *W.C. Röntgen*  
—A portrait of W. C. Röntgen,  
the discoverer of X-Rays,  
made on the day of the initial  
discovery, the day he took  
the first X-Ray photograph,  
and the day his work was  
published. 1972/1977. Pencil  
drawing, letraset and note.

Photograph: Richard-Max  
Tremblay.





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~~Statement by the Artist~~

There are established means of exploring and presenting forms of knowledge. These include the painted surface and displays associated with museums. In structure these methods provide a means of organizing and presenting or 'carrying' a body of knowledge. The formal attributes of these objects reflect the culturally conditioned activities which form the basis of their manufacture. As methods they also stand as memories and histories of these activities. As objects for analysis they provide the means of exploring aspects of the organization of the systems of knowledge they embody. The particular objects categorized as scientific instruments and their associated experimental results provide the means of exploring the cognitive aspects of man, not only the sensory stage of cognition, but also the relation between the empirical and theoretical levels <sup>in</sup> scientific cognition.

If one assumes that the human mind 'regardless of the identity of those who happen to be giving it expression, should display an increasingly intelligible structure' (Levi-Strauss), it then becomes immaterial when considering two distinct thought processes which of the two takes shape through the other. What becomes important is that one should shed light on the other. In fact, that light should be shed on the structure of the human mind.

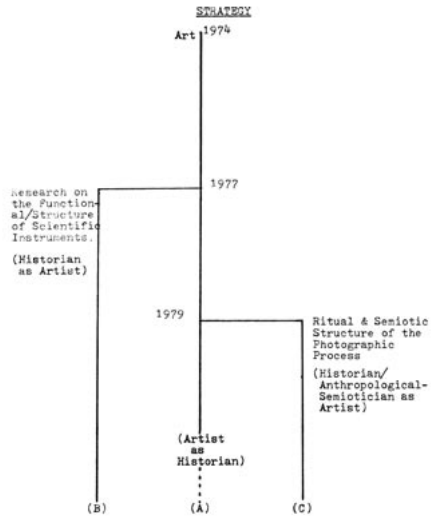
I have an interest in these thoughts.

DAVID TOMAS lives and works in Montreal. His long standing interest in science has led him through fellowships, research papers and lectures on the subject. He exhibits in Montreal and is the recipient of a Canada Council Junior Grant.

*Within this context the function of the artist is to discover new structures of cultural organization, and it is to these structures that the artist ultimately addresses himself.*

A good deal of the most rigorous and stimulating work produced in the last 14 years has borrowed notions from other fields of knowledge and applied them to examining the structural parameters of art . With the switch from , for instance , artist as historian to historian as artist the reverse procedure is true . As a historian one now has to relearn what those activities are that could be defined as 'artistic' within what can be termed a ' post-conceptual condition ' . Any productions from this point of view reflect this epistemological reorientation .

RESEARCH TOPIC (1979- ) :  
The Photograph, Process and  
Context



David Tomas, Catalogue statement, 1980.

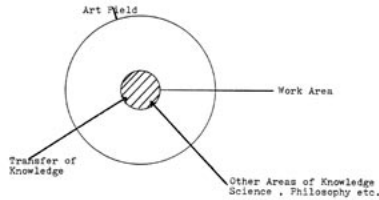
David Tomas, Diagram describing the multiple identities of the artist who works between disciplines, 1979.

different forms of pictorial display. After 1980 these questions were refracted through the problem of how one could develop a critical visual practice that took as its starting point the cultural infrastructure of a picture-making technology like photography, as opposed to beginning with the question of the image and its range of subject-matters. I distinguished between the two focuses, the one on process and the other on product, by referring to the former as 'a culture of representation' and the latter as 'the representation(s) of a culture.' Since 1980, the question of cultural infrastructure and subject-matter has been explored through a series of photographic installations, and most recently through photographic works that are conceived in one way or another to exist outside of disciplines and practices while operating in relation to them (see chapter 5.1, *Mimesis and the Death of Difference in the Graphic Arts*). These works have explored the nature and status of knowledge in ambiguous or 'transcultural' situations. As a consequence, I have often found myself situated outside of the art and academic worlds, confronted with the question of legitimate and illegitimate



TWO MODELS FOR THE TRANSFER OF KNOWLEDGE IN ART  
AND THEIR CONSEQUENCES ( FIRST DRAFT -- OUTLINE  
16/4/80 )

MODEL 'A' -- SINGLE CONTEXT , SINGLE MEANING



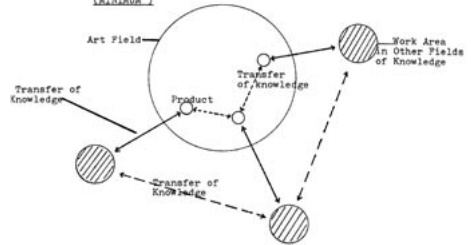
Transfer of Knowledge Possible Between Art Works and/or Producers. However Transfer of Useful Knowledge Out Into Other Fields Unlikely.

STAGE I

ARTIST AS HISTORIAN

TWO MODELS FOR THE TRANSFER OF KNOWLEDGE IN ART  
AND THEIR CONSEQUENCES ( FIRST DRAFT -- OUTLINE  
16/9/80 )

MODEL 'B' -- DUAL CONTEXT ( MINIMUM ) , DUAL MEANING  
( MINIMUM )



Transfer of Knowledge Possible Both Inside and Outside as Well as Between Fields of Knowledge

HISTORIAN AS ARTIST

David Tomas, Two models for the transfer of knowledge in art and their consequences, 1980.

forms of knowledge and identity. The contradictions between institutional practices, forms of knowledge, and an identity that was increasingly caught between contradictory disciplinary forms, eventually prompted me to clarify and redefine my situation, interests and methods in a 1984 interview that is reproduced as this section's first chapter.

Between 1980 and 1988, performance and installation-based visual works were produced and exhibited, and articles were written and published, while pursuing graduate studies in anthropology. The installations and articles probed photography's symbolic and cultural identity, especially in connection with the ritual structure of photography's process of production and its related system of classification. Throughout this period, academic and artistic production were allied, but in ways in which references and relationships remained for the most part autonomous. Instead of establishing a relationship of dependence through which one aspect of an author's work could be said to 'illustrate' the other, different methods of investigation were



David Tomas, *Experimental Photographic Structure*, 1980, P.S.1, New York.

Photographs: D. Tomas.

used to explore the question of photography's cultural infrastructure. The objective of the investigation was to apply theories of ritual processes to technological processes in order to invert the photograph/process hierarchy of photographic reproduction that seemed to dominate, in a very transparent way, the use of photography in anthropology and in art. It was by this means that the question of photography's social and cultural functions could be addressed in a more fundamental way than was possible through a simple consideration of the photograph itself. This investigation was pursued in a series of visual works that took form through a denial of the photochemical inscription of a potential subject on a photosensitive support. The visual works that were produced were considered to be theoretical and practical equivalents to the published papers.

An exploration of the implications of a ritual model of photography continued throughout

the 1980s. The exploration was accompanied by a diffusion of my narrow focus on photography. A more relational history of media emerged in which photography was considered to be part of an intersystem of cultures of representation that included cinematography, Polaroid cameras, early photographic lenses, miniature railway systems, mirrors, closed circuit television, camera lucidas, etc. In 1988 I graduated with a Ph.D. in anthropology. My dissertation explored the relationship between authority, observation and photography in British anthropology between 1839 and 1920. In 1987 I left Montreal to pursue postgraduate studies at the History of Consciousness Program, University of California, Santa Cruz, where my academic work was warmly received. However, by the time I left the program a year and a half later, I was disappointed in what I saw as a perverse relationship that was being forged between the visual arts and postmodern anthropology. This disappointment led to the publication of a critical text entitled *From Gesture to Activity: Dislocating the Anthropological*



David Tomas, *Experimental Photographic Structure II*, 1981, The Belgo Building, Montreal.

Photographs: D. Tomas.

*Scriptorium* (chapter 1.2), in which I explored some of the contradictions that existed between art and postmodern anthropology at the time. The key questions that motivated me to write the article were concerned with the choice of outdated artistic models (such as surrealism) and the adherence to old media formats (the book) when the visual logic of the criticism directed towards anthropological practices, although predominantly textual in nature, pointed elsewhere, to more radical textual practices. One was therefore confronted with the revealing but disturbing paradox of old radical ideas being used to modulate information through conservative media in the service of new disciplinary and intellectual agendas. This bizarre inconsistency pointed to an astonishing lack of reflexivity concerning the conventions governing the construction and presentation of knowledge and the material basis of the means chosen for formatting, disseminating and archiving information. Ultimately this raised the question of the academy's role in normalizing potentially dangerous visual propositions like those that could be produced on the basis of Russian Constructivism or Conceptual art.

These other art forms, especially the former, could be used to challenge the material basis and conceptual architecture of disciplines like anthropology, film studies and cultural studies by opening them up to radical forms of visual experimentation.

It is in such situations, when one encounters resistance within newly coalescing disciplinary alliances—as in the case of those that animated the History of Consciousness Program (with individuals who championed critical studies in the history of science and biology, ethnographic history, feminism, film studies, museum studies, the new history, psychoanalysis, etc.)—that one becomes subtly aware of the concept of risk and its role in policing disciplinary boundaries in the interests of containing and normalizing knowledge. What might appear abnormal and audacious because of its transversal strategy (the use of new history techniques in the analysis of ethnographic fieldwork practices and traditional forms of museum display) can suddenly be traced to a shift, but not necessarily a revolution, in the academy's culture. While displays might transform under the guidance of new forms of criticism, the museum retains its identity and autonomy in the name of a transcendent culture and teleology of history.





## 2. PHOTOGRAPHY AS SOCIO-SYMBOLIC PROCESS





## INTRODUCTION

What is a photograph? This deceptively simple question has received considerable attention over the years. But the attention has focused exclusively on the photograph from the standpoint of reception. From this position, a photograph is perceived as an autonomous product that is understood to be complete in itself. Although widely accepted, this focus can appear to be strange if not perverse should one choose to step outside of the convention that the photograph is the basic reason for photography's existence, or for a person to engage in a photographic practice.

There are, in fact, two facets to the question "What is a photograph?" One relates to its production ("Under what circumstances and through what technological means was it produced?") and one to its reception ("To whom was it addressed and what does it mean?"). However, if one chooses to replace the references to 'photograph' with 'process of production,' then one creates complementary questions that highlight the photographic process's virtual equivalence to its product: "To whom is the process of production addressed and what does it mean?" and "Under what circumstances and through what means was the photograph's process of production produced?" Revising the questions produces a strangely discordant effect, as if process and product were in some mysterious way fused, or interchangeable. These effects suggest that although the distinction 'process/product' has been recognized as important, and the photograph has been accepted as the logical and teleological objective of photography, it does not necessarily account for other noteworthy and important relationships that might exist between the two and that might neutralize the distinction and redefine the relationship between the two major components of photography. There is also another way to highlight the photographic process's equivalence to its product in connection with photography's ultimate objectives, and its overwhelming significance in relation to these objectives.

Briefly, Western cultures and those that are subject to their economic or material influences are predisposed to function, in relation to the creation of material things, on the basis of a fundamental distinction between processes of production and products. This distinction can be clearly seen in the way that the histories of imaging technologies in general, and of

photography in particular, have been constructed. For example, in photography's case, the separation between imaging technology and image product is reinforced through distinct sets of physical and sensory attributes and a product's relative mobility in comparison with its site of exposure, its process of manufacture, development, or the site(s) of its presentation. Discrete collections, exclusive systems of historical classification, and independent archival sites enforce the segregation of means of photographic production and end product. Although the rupture is based on spatial and temporal discontinuities between sites of exposure, processes of production or manufacture and their products, and although it provides an efficient means of classification which, in turn, produces highly specialized knowledge, it does so at the expense of more accurate and fundamental ways of apprehending and appreciating photography's cultural and historical singularities, its modes of production and reproduction, and the interrelationships between its specialized culture and those of other picture-making technologies.

The world of photography is divided between processes of production and products, producers and consumers. The divisions, if logical, are nevertheless artificial. The movement of photographs between discrete manufacturing and consuming sites creates an illusion of separation that only makes sense in spatial, temporal and material terms. If one rarely finds the two sites located in the same place, then this doesn't automatically mean that there are no other common contexts that might bind the two together on invisible levels that bridge space and time in ways that photographs cannot. This division might not, for example, apply to photography's symbolic and mythic dimensions because they might be governed by a different set of rules that are not constrained by three-dimensional space and chronological time.

The almost pathological obligation to attribute the totality of photography's cultural singularity and significance to the photograph and its content and, through them, to the relationships that they might have with other images, has created a distorted relationship between photographs and photography, and through it, distorted histories and theories of photography. What happens when one pursues the question of image manufacture in broader 'cultural' terms? What is it about the 'process of producing a photograph' and what is it about the 'photograph itself' that makes photography so singular? What links 'process' and 'product' together, and how does this common link relate to larger cultural questions about the physiological, symbolic and mythological foundations of visual knowledge? Why does photography exist, and how does it function as a sociocultural process, and not just as a technological process geared to the production of conventional subjects, however unconventional they might appear to be?

Finally, returning to the photographer, it is worth noting that this individual also stands at the juncture between two collective processes: the manufacture of camera and film, and the processing and visual consumption of this film in the shape of photographs. How does the photographer figure in relation to process and product since this individual is implicated in both?

Artists cannot answer the questions I have raised in a satisfactory way because of the tendency automatically to assume the role of a photographer in order to produce 'photographs.' The artist who would like to deal with these questions must adopt a different identity, set of tools, and practices that are designed to expose basic common patterns that unite disparate collective phenomena beyond the level of individual nuances. When we are dealing with human culture and its material artifacts, the most cosmopolitan discipline with the largest repertoire of sophisticated tools and databases is anthropology, with its ongoing analysis of human difference and the material/symbolic activities of non-Western, non-industrialized societies and, increasingly since the 1960s, complex industrialized societies.

Anthropology is a valuable and pertinent discipline to adopt because it can show us how technologies of observation such as photography are also articulated by non-scientific and non-technological processes of production that serve as the symbolic architectures upon which technological and scientific elements and processes are grafted and organized. We are used to dealing with the fact that this picture-making technology's products are governed and guaranteed by a veil of impartiality because it is certified by the disinterested, impersonal, physical characteristics of the camera's and photographic process's elements (lenses, photosensitive material, photochemistry, etc.). The relationship between these elements, and their rules of use are suffused with the ideology of the scientific/technical instrument and the procedures that surround it. This logic is, of course, endorsed by the realism of photography's products, whether they are measured against the external world or against a set of experimental parameters. But the logic of impartiality and the scientific and realist ideologies that sustain photography, and an important documentary and interpretative facet of anthropological fieldwork practice, represent only one of this technology's operational dimensions. Ultimately, this might not be the most important operational dimension, especially if one adopts the viewpoint that photography is not just a rational technological process in an objective scientific sense, but it is also a rational symbolic and mythological manufacturing process.

Anthropology can also provide us with the tools to prove that there is no immutable reason to distinguish between scientific and technical artifacts that are produced and used in selected

areas of culture (laboratory, factory, university) from those ritualistic processes of sociocultural transformation that might be used in other areas. Once one proposes that technology is saturated with cultural elements that are artificial and logical, symbolic and highly structured, a sophisticated imaging technology such as photography is transformed into an independent cultural space defined and regulated by symbolic structures and processes that are permeated with collective meaning. This premise can lead to other worlds that are governed by their own discrete picture-making practices.

One can therefore accept, without question, the existing conventions that regulate the production of images in our culture. These conventions stipulate that there is a distinction between process and product, and that the latter is the sole objective of the former. Thus picture-making is limited to the production of two-dimensional images in the case of photography. But one also has the option of defining picture-making practices in completely different terms. Why not begin at a different and more abstract cultural level, and seek out a new set of conventions and use them to produce a new kind of photography? At that level, photography would not be defined in terms of image-capturing devices and picture-making processes. It would be defined in terms of systems of classification, symbolic processes of transformation, and their relationships with other symbolic systems and processes. Instead of being bound by the limits of existing technologies and the physical boundaries of associated artifacts (cameras and photographs), one could move across symbolic pathways, from technology to technology, and from artifact to artifact. This movement could create a pattern that produces a picture that has been plotted through a cultural space or field defined by concrete objects. Since these objects would also be the materializations of ideas, the cultural spaces or fields could also be treated as pathways of ideational possibilities. Picture-making would begin to exist at this level and in these terms. Thus instead of starting at the level of the subject as defined by a camera and viewfinder, one could begin at the level of the system and its position in an intersystem.

This brings us to the question of an 'anthropology' of photography and its constituent elements. Although the photograph's subject-matter has been analyzed in sociological and ritualistic terms, the photographic process has not been subject to a similar analysis. This is a strange omission because photography is a process of manufacturing subjects that is based on repetitive and cyclical procedures that are clearly demarcated in terms of space and time. It transports and transforms individuals and other subjects through an optical and chemical (or digital) process that is organized on the basis of fundamental systems of classification.

It transforms them physically and dimensionally, while transporting them from one distinct physical and sociocultural state to another. The systems of classification are, in turn, geared to cosmic and mythic orders.

An anthropology of photography is therefore not only concerned with the photograph, it treats photography as a sociocultural process of production and a process of sociocultural production. This anthropology uses a different set of tools to delve into photography's collective symbolic space. One of the tools has its origins in the study of rituals, their spatial and temporal organization, symbolism and dynamics.

The rites of passage ritual of social and symbolic transformation was identified and analyzed by the French folklorist and ethnographer, Arnold Van Gennep, in 1909. The significance of this ritual process was further explored by the Anglo-American anthropologist, Victor Turner, in a series of classic essays published in the 1960s and 1970s. But these analyses were limited to non-technological social processes associated with major transitions such as birth, death, or the movement from one distinctive and significant social or cosmic category to another. This limitation was convenient because it allowed societies to be divided along the lines of complexity, as measured by scientific advancement and level of industrialization. Scientific and technological knowledge and apparatuses, complex manufacturing processes, and industrial artifacts could easily be contrasted with the kinds of social activities, 'irrational' and magical systems of belief and logic, and handmade artifacts that were recorded in simpler, non-industrial societies. By limiting ritual processes to non-technological processes of social transition, one could also link the systems of belief that they might embody and their mode of organization to so-called primitive non-industrial societies, or to non-scientific and non-technological activities in a complex society. This was one important way to gear science and technology to objective and rational thought processes and rites and rituals to subjective, mytho-poetic—albeit logical—modes of reasoning. Thus industrial societies and non-industrial societies could be clearly differentiated and distinguished on the basis of their modes of reasoning and methods of mapping the world and the cosmos, while non-rational activities could be contained within well demarcated zones in complex societies (the paranormal, art, literature, theatre, cinema). This division existed in the cases of Van Gennep's and Turner's models. But there are techno-scientific processes, such as photography, that bridge the two worlds. Photography represents an unusual frontier between these worlds because its mode of production interfaces with the world of applied science and technology and the world of

subjective, individual image-making practices which are often fueled by dreams, desires and other 'excessive,' marginal or unproductive forms of thought.

If one can successfully apply a 'rites-of-passage' model to the photographic process, then one can simultaneously propose a new reading of photography and a new understanding of how ritual processes govern the organization of complex scientific and technological artifacts and processes. This new approach is presented in the three chapters composing this section. The application of this model produces a different understanding of what photography is, how it functions, and what its social and cultural objectives might be. These can be divided in terms of a basic model (*The Ritual of Photography*), an advanced model (*A Mechanism for Meaning: A Ritual and the Photographic Process*), and, finally, a proposition concerning the way that a photographic rites of passage binds human subjects to a ritual process and the objectives behind this articulation (*Toward an Anthropology of Sight: Ritual Performance and the Photographic Process*).

The first stage (*The Ritual of Photography*) presents the basic components of the new reading. The photographic process is a ritual process that is composed of three major stages: a rite of separation, a liminal or marginal stage, and a rite of reincorporation. The stages combine, through the photographic process, to produce a scientific and magical ritual that reduces a subject by two dimensions—thereby eliminating three-dimensional space and time. This process also marks the symbolic death of a subject by way of its optical and chemical transformation. The transformation is achieved through well-demarcated stages with the creation of a new subject in a latent stage, in an intermediary negative form, and finally in the form of a positive print. The intermediary form of the subject is liminal in character because of its interstitial (reversed positive/negative) characteristics and its potential capacity for reproduction; and the final form represents a fixed state of social and symbolic timelessness and spacelessness. This ritual process is peculiar in its photographic form because it could represent an attempt to resolve a fundamental cognitive contradiction—that of the gap between the mental construction of permanence and the visual disjunction between momentary states. If this is the case, then this technological ritual is engaged with the 'paradox of permanence' and it proposes visual solutions to it in the form of photographic images that might embody a related message: that order is achieved by way of permanence. Finally, the solutions that this technological ritual proposes are based on a fundamental system of classification composed of light/dark and presence/absence. The concept of order, in this case, is interesting. *The Ritual of Photography* does not elaborate on its nature, but there is

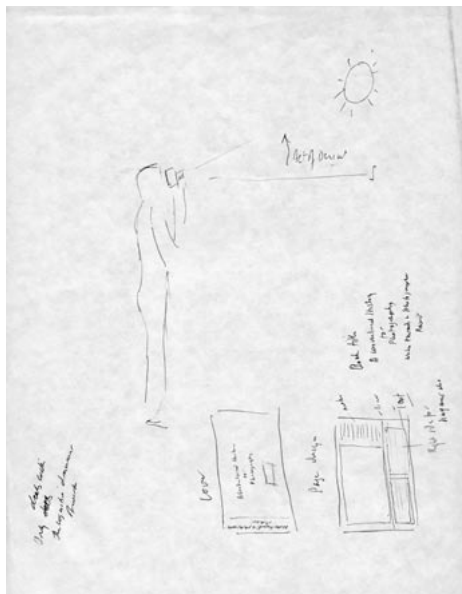
certainly an intimate and important connection between photography and the production of personal, family and collective archives. The archives that exist in every home and institution with access to a camera create a sense of continuity through time and space. They stabilize individual and collective identity by providing collective visual databases that duplicate and anchor human memory. Collectively they form a network that defines, on the basis of the photographic image, what being human is.

How does one prove that there might be a connection between this ritual and the photographic process? One would have to apply the rites-of-passage model to an extreme or special case. *The Ritual of Photography*, written in the late 1970s, used the SX-70 Polaroid camera to 'test' the model's validity because it was the latest camera design to be constructed on the basis of a radical solution to the spatio-temporal and interactive problems associated with the off-site processing of images: a film package that is designed to embody the necessary chemistry for the 'instant' processing of the image into a positive print. This solution ensures that the image-taking and image-making components of photography are located together within one compact, portable artifact. The choice was logical since the ritual process should also apply, albeit in a modified way, to this unusually condensed artifact.

The simultaneous reading of photographic and ritual processes in common terms is interesting and important from a disciplinary viewpoint. Photography is opened up to the possibility that it might also embody a completely different kind of practice that is no longer measured in terms of the successful manufacture of conventional subjects, however unconventional they might appear to be. This practice can now be defined in terms of basic symbolic parameters that are linked to elementary systems of classification and ritual processes of production. In other words, the world of optically defined photographic subjects suddenly dissipates and gravitates towards the extreme poles of light and dark, and a techno-symbolic process materializes in its place, and presents itself as a different kind of subject. Thus a ritual of photography can serve as a unique frame of reference for a simple parallel gesture in the art world. For example, one can point a 35mm camera at the sun and take a series of overexposed photographs. The resulting photographs have no discernable differences inscribed in their surfaces; they are completely white and it is therefore impossible to equate them with a specific place or time, however vague this equation might be. Since they have no visibly differentiating information, even if this undifferentiated condition is presented in the form of an excess of data, a spectator cannot recognize them as photographs or immediately place them in any category of 'picture.'

A ritual theory of photography opens the photographic process to a more detailed cultural and structural analysis than is possible in cases of traditional historical or theoretical analyses. There is the possibility of linking the manufacturing process and end product together in fundamental ways, and there is the possibility of linking photography to other ritual processes of sociocultural transformation and to other symbolic processes that might be

based on common classification systems. This basic approach can be extended in interesting ways, especially in the directions of context, methodology and content.



David Tomas, Sketch of the artist taking his first 'Brute' photograph. Ball-point pen, nd, circa 1983.

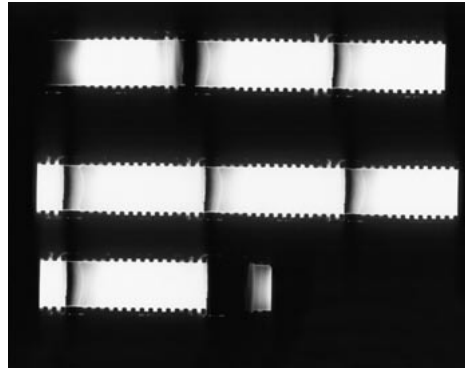
*A Mechanism for Meaning: A Ritual and the Photographic Process* goes beyond the previous chapter by placing the photographic process in a specific historical context and by raising questions concerning its use in different cultures and its ability to serve as an interface between the domains of anthropology, political economy, psychology and sociology. When the chapter was written in the early 1980s, influential contemporary analyses of photography (Roland Barthes, John Berger, Pierre Bourdieu, Susan Sontag) could be divided between internal (semiological) and external (sociological and anthropological) modes of analysis. But there was no attempt to examine photography as a sociocultural

structure within which a given subject could be coerced into a social role and a particular function. *A Mechanism for Meaning: A Ritual and the Photographic Process* explores photography in these terms by first introducing the notion of a "transcultural structure" in relation to the photographic process and then by outlining a syntactic model for this process. The photographic process is then treated as a "bridge," or "bridge of permanence," concepts that are useful because they point to the existence of a negative disjunctive space between momentary states, however large the gap between states might be. It goes on to describe the photographic process's "symbolic structure" as if it were a model, thus introducing the idea



of a certain abstract distance between the actual use of the technology and its theoretical description. This distance is significant because it alludes to an abstract space and symbolic structure that is present in all manifestations of photographic activity, and it places the theorist or anthropologist in a position to begin to think about how the model can be manipulated to different ends.

*A Mechanism for Meaning: A Ritual and the Photographic Process* expands on the previous chapter's outlines of a photographic ritual by proposing a more refined model for photography's spatio-temporal structure: the act of photographing is a strategy aimed at the future, an attempt to place the present at the service of a future state or condition. Inversely, the act of looking at a fixed photographic image implies a reversing of the former strategy because it aims to place the past at the service of a present state or condition. This distinction leads to a detailed series of diagrams of photography's spatio-temporal logic. The distinction and diagrams provide a means of linking the present/future of the production strategy to the past/present of the viewing strategy in a way that points to the visual paradox and enigma of the violent fission of appearances from their functions, and their violent fusion in terms of future and past into the photographic emulsion.



David Tomas, Contact sheet of first 'Brute' photographs, 1980.

The notion of a model becomes useful when a classification of photographic types is developed on the basis of an experiment to eliminate the conventional image of the photograph. This idea also leads to the possible implementation of a strategy to subvert the ritual process's sociocultural mandate of producing conventional images in order to use the process for other unconventional ends, such as the production of subjectless images (imageless photographs produced by radiated light as opposed to reflected light). These imageless photographs are nevertheless classified in terms of Barthes's key, through somewhat ambiguous description of a "brute" photograph. This basic *tabula rasa* represents a significant theoretical proposition in that it provides a base measure for categories and types of photograph, and links up with the existence of the excessively overexposed photograph in interesting, if contradictory, ways.

The distinctions between these “chemical light mirrors” and categories of brute, conventional and semi-conventional (photogram) photographs are outlined and categorized.

*A Mechanism for Meaning: A Ritual and the Photographic Process* goes on to present a detailed syntactic model for the transformation of the photographic image/subject in order to elucidate the structural and semiological basis of the relationship between the image, photographic process, and rites-of-passage structure/process. The resulting permutation equation reveals a process that operates in an independent way from conventional image/subject contents. *A Mechanism for Meaning* advances the idea that the photographic process is a transcultural activity in itself, even if its *raison d'être* appears to be the production of photographs. Brute photographs are then linked to the idea of a transcultural photographic dimension, since these types of photographs cannot be anchored in a specific spatio-temporal moment in history in the same way that conventional photographs can. New kinds of photography are also possible based on modifications to the photographic process's symbolic logic or its rites-of-passage structure. The modifications function at the level of its cultural logic and not at the level of the conventional (or traditional) photographic picture. Finally, the chapter discusses photography's political dimensions in light of its material/symbolic structures and modes of operation, and briefly notes its potential impact on non-Western cultures in these terms.

A key question that is raised by a ritual of photography concerns its relationship to human subjects. For the process cannot exist without its human components, and all photographs catalogue the concrete and symbolic worlds of human activities in an ubiquitous and unprecedentedly detailed way. What are the photographic process's performative dimensions?

Ritual processes are self-reflexive sociocultural processes that are conservative and revolutionary, destructive and creative, in that they present esoteric maps of an existing culture and because they provide the means of systemically disarticulating and rearticulating the world. From a logical perspective, what are the links between the human body, the photographic process and the rites of passage that bind the three together? How is the human body processed by this kind of ritual? Since we are dealing with vision and picture-making technologies, the correspondence might exist in these terms. An obvious link is through the camera/eye analogy. This correspondence provides the most direct bridge between the worlds of science/technology and the world of the human organism through the sense organ that is at the centre of photography, the history of pictures, and picture-making technologies and practices throughout history. This link also ties the photographic process to a history of the rationalization of sight and transforms this history into an anthropology of sight by providing the basis to

reinterpret history through a reconsideration of its material and technical foundations (and their relationships to the human body).

*Toward an Anthropology of Sight: Ritual Performance and the Photographic Process* explores these issues in detail. It begins by discussing the relationship between the mirror, photograph, and the self-reflexivity of the ritual of photography, especially in relation to the human eye and photographic camera. A correspondence is noted between the biological eye and camera, and a proposition is advanced that can serve as a basis for the linkage between biological organism and ritual process. The chapter raises the possibility of a human organism's capacity to be processed and redefined by a ritual of photography: the individual producing a photograph is simultaneously reproduced as a 'photographer,' and photography can be understood to be a technologically informed ritual process of the photographer's production and reproduction in parallel with that of the subject. Two subjects are therefore processed: the subject/image and a biological organism in the role of the photographer. The linkage between the two subjects is established through a correspondence between the mechanical eye (camera) and biological eye (that of the photographer). It is on this basis that the chapter concludes that a history of an education of the eye exists, as well as an anthropology of sight, and an associated poetics of technology. But how possible are all of these transformations, if the photographic process is divided between multiple production and manufacturing sites? The answer is to be found in the spatio-temporal plasticity of the rites of passage. Rites of passage can be dispersed in space and time and their subjects still pass through a complete system of transformation, however fragmented it might be. The chapter also proposes that the logical priorities and cognitive concerns of the photographic process's underlying system of classification closely duplicate the concerns and priorities evoked in the first ten verses of Genesis. Thus it points to a correspondence that exists between the two creative processes at the level of their classification systems, and suggests that the photographic process represents an alternative technologically-based model for the original creation process. This unusual connection might explain photography's hegemonic role in the occident and those areas that were subject to its influence. The chapter goes on to explore this proposition in relation to Claude Lévi-Strauss's discussion of a Kwakiutl shaman's performative practice.

The three chapters in this section form the basis for an anthropological model and theory of photography. The theory proposed is distinct from existing photographic theories (for example, those 'image-based theories' that are semiological, semiotic or materialist in nature) because of its focus on photography's processual form, cultural logic and symbolic structure. It is also

distinct because of its focus on photography's ritually articulated performative dimensions and its analysis of production and viewing strategies (with their relationship to the imaging technology's cultural logic and performativity). Finally, the theory provides a different interpretation of the relationship between the photographer and the photographic process, one that raises important questions about the role and location of the author in photography.

## 2.1 THE RITUAL OF PHOTOGRAPHY

In 1909 Arnold Van Gennep published his now classic *The Rites of Passage*. The book proposed a unifying theory for a certain class of ceremonial rituals. These rituals that accompany a person's or group's life crises or social transitions, were termed by Van Gennep "rites of passage." Some examples of such rites are birth, puberty, marriage and death, and more generally the movement from one social category to another.

According to the theory, these rites are characterized by three successive and distinct moments in 'ritual time.' These moments provide a symbolic bridge that permits the transformation or transposition of the subject from one social category to another, and they simultaneously buffer the existing social fabric from the consequences of these crises. The rites make it possible to recognize these abnormal conditions, and thus to integrate the abnormal into an accepted sequence of social activities. Based on a diagram by Edmund Leach,<sup>1</sup> these rites can be presented as in Figure 1.

The first transition is the rite of separation. It is constituted by the symbolic behaviour signifying the transition from the secular and profane world of the social group, to an abnormal and therefore sacred condition opposite from, and contradictory to, the common set of cultural conditions providing for social cohesion. This second transition or period of transformation, the bridge between the subject's or group's previous and subsequent status, is the period of ritual metamorphosis. The conditions of this stage are opposite from the secular and profane, and therefore sacred, dangerous and unclean when compared with normal social conditions. Not only is it metaphysically abnormal, but also the territory or location on which the transformation takes place is sacred and outside of society. Victor Turner has termed this stage "betwixt and between," neither one nor the other, a state of non-being, death or nothingness.<sup>2</sup> In this marginal state, the subject or subjects are considered to possess little of their former or later attributes. When the desired symbolic transformation has taken place, a method is needed to reinstate the individual or group into society—a method of renormalization and decontamination. It must not be forgotten that marginal states are considered sacred and unclean. The rite of aggregation functions as a 'decontamination chamber,' metaphorically

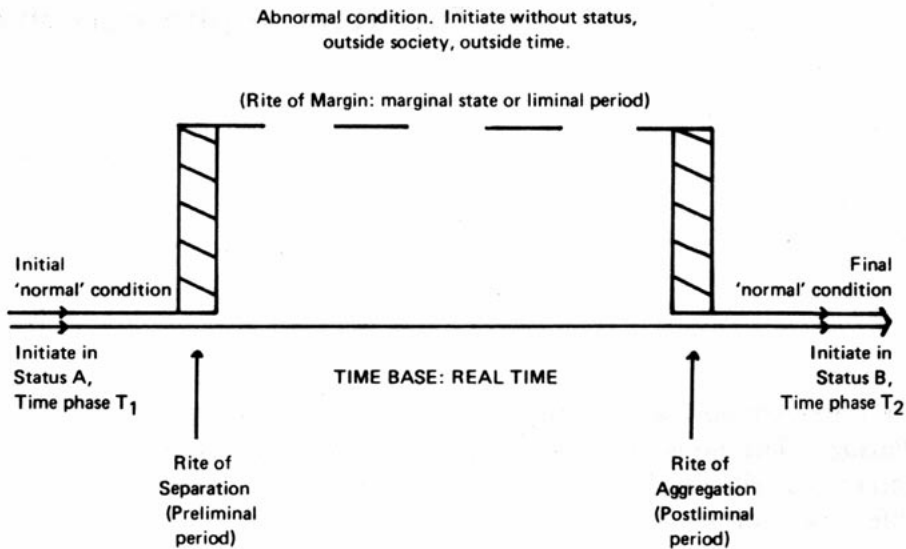


Figure 1

speaking, and the subject or subjects now enter their new status in society. The rites of passage can be regarded as marking an ontological shift. It is this model of a transitional process that I will apply to photographic activity.

The photographic process can fruitfully be thought of as a particular form of cultural ceremony. Within this context it is possible to construct an analogous symbolic structure based on the rites of passage, and to indicate the type of transition accomplished as well as its social function.

Leach has advanced a notion of ritual he derives from information theory and defines as an information-bearing procedure of a redundant and interference-loaded type.<sup>3</sup> It might function within a culturally defined communication code, or it can be potent in terms of cultural conventions or occult powers categorized as magical. It is contrary to rational/technical behaviour. In terms of the photographic process, the above definition is inadequate in two respects. The first is that the process specifically belongs to a range of behaviour known as rational/technical, comprising optic, material and photochemical technology. The second is

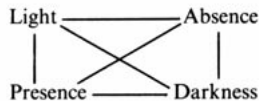
that functionally it is not part of the range of human experience normally associated with ‘magical’ behaviour.

These problems can be cleared up to a certain extent by defining, as Van Gennep does, the religious-magical domain as comprising religion (a metaphysical system) and the technique of magic.<sup>4</sup> If we replace the religious system with another metaphysical system—that of science—we are in a position to adapt the tools of magic to the service of science. It now remains to be seen whether they are found in this latter realm of experience. The technique of magic has been subdivided by Van Gennep into three binary sets.<sup>5</sup> The first group comprises sympathetic and contagious magic, the influence of like on like (imitative magic), and the view that actions can be transmitted over a distance or by way of physical contact. The second group consists of direct and indirect influences; this set distinguishes between actions carried out without an intermediary agent and actions carried out with an intermediary agent. The final group comprises positive and negative volitions or taboos; these acts are translations of will, instructions, or commands. Any combination of the elements of the three sets comprising the technique of magic can define a particular rite.

In the case of photography, it is the scientific-magical or scientific-technical framework that provides the infrastructure for the passage from one social status to another. It defines ritual context and ritual process, while simultaneously defining spatial boundaries and the temporal sequence of rites. As a technique, it is based on notions of contagion and indirectness, and comprises both positive and negative volitions.

Again, within the context of the photographic ceremony, the term ‘sacred’ is more appropriate than the term ‘occult.’ In this context ‘sacred’ denotes situations or objects that are out of bounds to normal experience because they are in a state of opposition, and therefore unclean and dangerous to what is considered the profane or secular realm. As Van Gennep has pointed out, “Sacredness as an attribute is not absolute; it is brought into play by the nature of particular situations.”<sup>6</sup> But whereas Van Gennep limited the rites of passage to marginal and ill-defined social states, Mary Douglas has extended Van Gennep’s insight to include “Not only marginal social states, but all margins, the edges of all boundaries which are used in ordering the social experience, are treated as dangerous and polluting.”<sup>7</sup> The reason for this hypersensitive concern for boundaries has something to do with their defining characteristics: if the margins “are pulled this way or that the shape of fundamental experience is altered. Any structure of ideas is vulnerable at its margins.”<sup>8</sup>

The photograph as the end product of the photographic ceremony occupies a particular segment of social reality. In effect, it represents the culturalization or socialization of two particular segments of nature: light and absence. It achieves this by reconciling their contrariness within its structure. Light is ephemeral, but by revealing all, it creates order. As the agent for human perception, it defines and thus orders the world. Its non-existence—darkness—denotes disorder. Absence, on the other hand, defines the world in a complementary manner; it denotes disappearance, the passing from view. Permanently or momentarily, absence connotes movement. It is an empty category but always defined in terms of its opposite: presence. The terms light, darkness, absence and presence concern the faculty of seeing and relate to visual knowledge. The diagram below sets out the four-element relationship.



What was at first a seemingly arbitrary relationship has, with the insertion of the two related opposites, become a system of relationships. The photographic ceremony, in effect, articulates the two sets of contradictions  $\text{Light} \equiv \text{Absence}$ <sup>9</sup> and  $\text{Presence} \equiv \text{Darkness}$  in the following transformational permutation:

Inversion Inversion

$\text{Light} \equiv \text{Presence} \rightarrow (\text{Presence} \equiv \text{Darkness}) \rightarrow \text{Darkness} \equiv \text{Absence} \rightarrow (\text{Absence} \equiv \text{Light}).$

It transforms the relation  $\text{Light} \equiv \text{Presence}$  into the contradictory and inverted term  $\text{Absence} \equiv \text{Light}$ , through a series of scientific-magical permutations. It is this system of relations that constitutes the building blocks of photography.

John Berger has stated the following: “All photographs are a form of transport and an expression of absence.”<sup>10</sup> The social transition that is to be analyzed, then, is the transformation from a subject’s status of visual presence to the subject’s visually present nonpresence or absence within a common context of light, which is the agent of vision. This transition implies the problem of the permanence of objects. To borrow a relativistic image from C. E. M. Joad, by way of illustration:

In the same way a man may be regarded as a series of momentary men.  
Apart from these momentary men he has not real existence, so that in



attributing to him such continuous existence as we undoubtedly do in everyday life, we are performing an act of mental construction which endows with apparent permanence and solidity what is, in fact, a series of fleeting, momentary particulars.<sup>11</sup>

Although for Joad “momentary particulars” refers to the relativistic and ‘microscopic’ properties of matter, it can apply to the ‘macroscopic’ properties of matter as well. (For a discussion of the evolution of the sensorimotor schemes involved in the construction of a notion of permanent objects in children see Jean Piaget.)<sup>12</sup> It is my hypothesis that photography works towards resolving this question in visual terms: the momentary is made particular and permanent, having been processed by a visual equation.

The paradox of the permanence of the photograph is resolved to a degree by the fact that the fixed image is relatively stable when compared to a world of flux. This comparative stability points to its role as a secular symbol for eternity. The momentariness of the photograph, as object, is neutralized by its dimensional stability (it is symbolically dimensionless and timeless). The negative (itself reproducible) provides the means for the creation of a multitude of originals that can be compared with each other and/or the first photographic print. This potential for perpetual regeneration adds stability by repetition and creates a latent omnipresence, adding to the photograph’s power as a symbol for eternity.

The creation of a photographic ceremony offers a more satisfactory resolution to the paradox of permanence, a problem formerly dealt with by the illusionistic arts. Jack Burnham has stated:

A case has been made for the deterioration of realistic painting following the invention of the daguerreotype in 1839. But it would seem that the decline of the Renaissance conventions had already begun at least two centuries before in Dutch painting. What the photograph did, as Delacroix attested, was to offer painters an infallible imitation of reality which they could never hope to duplicate... So that the optical-chemical duplication of actual events simply encouraged a tendency away from realism which had been at work in artists’ minds for centuries.<sup>13</sup>

Burnham has failed to trace the camera obscura’s relationship to painting from the Renaissance onward, and therefore denies its role in causing the decline of those conventions. He has also failed to explain adequately why a culture should develop such a device. But he does point out that “in fact it seems reasonable that only a culture impelled to imitate the

results of a camera would have bothered to develop this particular piece of technology.”<sup>14</sup> If my hypothesis is correct it is not “a culture impelled to imitate the results of a camera” that would have bothered to invent it. The photographic ceremony, and the cultural process that it represents, are the result of an attempt to resolve a fundamental cognitive contradiction: the gap between the mental construction of permanence and the visual disjunction between momentary states. Douglas has pointed to the cultural conditions of this type of resolution: “There are several ways of treating anomalies. Negatively, we can ignore, just not perceive them, or perceiving we can condemn. Positively we can deliberately confront the anomaly and try to create a new pattern of reality in which it has a place.”<sup>15</sup> Claude Lévi-Strauss has defined this new reality in the following way: “... all mythical thought and ritual consist in a reorganization of sensory experience within the context of a semantic system.”<sup>16</sup> The reorganization of sensory experience, in this case, is caused by the desire for a satisfactory solution to the paradox of permanence. Its solution takes the form of a type of permutation equation, and a consequence of this particular solution is the notion of reproduction. As Walter Benjamin suggests in his celebrated essay “The Work of Art in the Age of Mechanical Reproduction,” this notion “enables the original to meet the beholder halfway” in “situations... out of reach for the original itself.”<sup>17</sup> A fundamental characteristic of art in the form of photographic reproduction is transportability.

Consequently, far from heralding an emancipation from art’s former parasitical dependence on ritual and cult value, as Benjamin has proposed,<sup>18</sup> art in the form of photographic reproduction is but a new semantic system. The former cult value of remembrance associated with ceremonial objects, as well as the increase in exhibition value caused by reproduction, is preserved in this new system. Finally, notions of authenticity and uniqueness have shifted because of sensory reorganization, to become associated with the ‘real’ or permanent. Within this reading, the photograph becomes a gesture of possession and preservation—it is a visual memory. Photographic activity can therefore be considered a ritual, for it represents a formal sequence of acts, an ordered pattern the purpose of which is to transmit a collective message to ourselves.<sup>19</sup> The message is order by way of permanence. How does this ritual achieve the “reorganization of sensory experience” by the use of the formal structure associated with the rites of passage?

The photographic ritual ideally encompasses three major stages of production: the taking of the photograph, the development of a negative, and the printing of a positive. The rite of separation (also known as the preliminal period) comprises the preparation of the sensitive

negative material, its exposure, followed by development, washing, fixing, washing, and finally the drying of the negative. The transitional rite (known as the liminal period or rite of margin) comprises the condition of negativeness. The rite of aggregation (the postliminal period, or rite of incorporation) comprises the preparation of the sensitive positive material, the printing of the negative, followed by the development, washing, fixing, washing and finally the drying of the positive print.

The rites of passage function as a scientific-magical ritual that reduces the subject by two dimensions by way of the preliminal period, which eliminates space and time. It achieves this by reducing three dimensions to two, and by abolishing motion, repetition and absence. This sequence is performed in secular time, and the agent of separation is the camera. It is therefore an indirect rite. The separation of the subject from the profane world is symbolically achieved not only through a dimensional reduction but also by its optical inversion and lateral reversal, along with an accompanying reduction in scale. The rite of separation inverts the subject while making it portable. This sequence corresponds to the permutation of Light  $\equiv$  Presence (the photographic context) to Presence  $\equiv$  Darkness. This latter relation denotes the presence of the subject's latent image in the dark (i.e. the camera or film container). The technique is contagious, the agent transferring the subject to the film is light, and the action is over a distance. It is indirect (again the intermediary is the camera), and there are positive and negative volitions associated with the taking of a photograph (for example, the sequence of actions in the order necessary to expose the film correctly, and the taboos against opening exposed film containers and loaded cameras). The separation is concluded in the darkroom, again with rules and taboos. This portion of the rite comprises the final act of separation, with the simultaneous introduction of the subject into the marginal state or liminal period. The transition is sanctified by a ritual of purification that is also characteristic of the rite of aggregation. The final stages of separation consist in the developing and fixing of the negative, while the purification rituals are the intermediate stages of washing, punctuated by the final stage of drying. This purification removes the chemical 'dirt' associated with each stage in the transition from a latent negative image to an objectified negative. It represents the permutation from Presence  $\equiv$  Darkness to Darkness  $\equiv$  Absence. This latter relation connotes darkness and the creation of a sign of absence—the negative image—in the absence of normal (white) light by the chemical process of development. If Light  $\equiv$  Presence is associated with the normal, Darkness  $\equiv$  Absence is its opposite: the abnormal.

The notion of chemical dirt is interesting. Douglas has defined dirt as the “by-product of a systematic ordering and classification of matter, insofar as ordering involves rejecting inappropriate elements. This idea of dirt,” she states, “takes us straight into the field of symbolism and promises a link-up with more obviously symbolic systems of purity.”<sup>20</sup> According to this definition, dirt makes reality comprehensible in the following way: the ordering of reality demands not only a system (in this case a photographic one), but also that the system should have boundaries, otherwise it would be indistinguishable from the general flux. It is the boundary of a particular system that dirt helps to define. Dirt automatically defines the elements of the system as being clean or pure, in contrast to the elements outside the system, which are considered dangerous in the sense of pollution. Thus the boundary markers of a system are established by this dialectic between purity and pollution. In the photographic ritual the symbolic function of dirt is corroborated by the taboos against chemical pollution in the darkroom, and the purification of both the negative and positive prints during the critical stage of chemical development. Symbolically, these two sequences of development define particularly sensitive transformations in the general system of the photographic rites of passage. One would expect to find strong differentiation between this particular subsystem or sequence and its local environment during the passage of chemically sensitive negative or positive material—hence the darkroom. In this case the application of the symbolic function of ‘dirt’ seems justified.

The permutations between the elements of the equation are also defined by major territorial passages. The first of these is the field of vision defined by the viewfinder of the camera. The viewfinder symbolically takes possession of the contents of the field as defined by its edges or boundary. The lens-shutter system, on the command of the photographer, takes possession of the subject’s light image as defined by the viewfinder. It converts the image, by projection onto a photosensitive material, into a latent chemical image. The choice of symbolic possession with electro-mechanical mediation and optical-chemical consequences marks the beginning of the rite of separation. The camera is the black box that, when in use, is out of bounds and protected by taboos relating to image destruction and sanctioned by monetary loss. It is a territorial passage and the lens is the threshold. The darkroom is another black box and territorial passage. Both the camera and the darkroom are containers in which the transformations take place. These transformations are achieved in the dark and are symbolically invisible to white light. The threshold to the darkroom is its door, and as Van Gennep declares, “to cross the threshold is to unite oneself with a new world.”<sup>21</sup> Ritually, these territories are dangerous because they represent neither the former nor the subsequent

state and thus are symbolically undefinable. The transformations are therefore territorially bounded, are performed in 'darkness,' are symbolically invisible, and are characterized by a heightened consciousness of pollution.

The negative, then, represents the liminal period. Symbolically, it is defined as an inter-structural stage. It is 'betwixt and between,' neither light image nor photograph, inverted, laterally reversed, reduced, two-dimensional, bounded, portable, 'eternal' and present. Yet it is transparent and therefore symbolically invisible, incomplete and socially dead. It signifies the stage Darkness  $\equiv$  Absence in the photographic ritual's transformational permutation. It is at this stage that the former latent redundancy of the information-carrying capacity of this ritual process becomes apparent. The transparent nature of the negative creates the possibility of the infinite optical-chemical reproduction of the information it contains. While also expressing an absence, the negative paradoxically renders it redundant: as a substitute it is infinitely reproducible. The state of marginality is therefore defined, in this case, as the interstructural state of perpetual negativeness.

The rite of aggregation comprising the postliminal period permits the restructuring of the image. This rite comprises the following sequence: preparation of the sensitive positive material, printing (a latent stage), followed by development, washing, fixing, washing and finally the drying of the positive print. Pollution taboos and the purification rituals are as evident at this stage as during the rite of separation. The technique is contagious (the agent is light), indirect (the intermediary is the enlarger), and comprises positive and negative volitions. This rite symbolizes the final permutation from Darkness  $\equiv$  Absence to Absence  $\equiv$  Light. The resulting photograph is positive and opaque, and the optical inversion and lateral reversal performed by the rite of separation are corrected. Symbolically decontaminated, the image is an analogue of the real subject. Symbolically, it not only denotes the absence of its subject, but it connotes light by the chemical reconstruction of the original subject's light image. At the beginning of the transformation, light revealed presence; at the end light reveals absence. The photographic ritual has bestowed presence on the absence of the photographic subject; it has processed the light image, and transformed it into a chemical analogue. The subject is now stable and permanent as an image in society.

The photographic ritual functions symbolically to mark the death of the subject by its optical and dimensional transformation. Further, it freezes the 'unstructured' subject during a period of ritual and sacred isolation, and finally marks the reintroduction or reincarnation of the subject into society by means of its 'restructuralization,' in the form of a new photographic

state of social and symbolic timelessness and spacelessness. Having outlined a diachronic structural model of photography as a cultural activity, I will now apply it to a very particular form of that activity—the Polaroid one-step photographic method in the form of one of its most perfected models, the SX-70 Land camera.

The SX-70 Polaroid camera was described before the Society of Photographic Scientists and Engineers in May, 1972 as “Absolute one-step photography.” In the same address Edwin H. Land pointed out that the new process represented the attainment of a goal he set for himself in 1947: “To make it possible for the photographer to observe his work and his subject-matter simultaneously, and to remove the manipulative barriers between the photographer and the photograph... so that the photographer by definition need think of the art in the *taking* and not in *making* photographs.”<sup>22</sup> This latter distinction, however, was already present in the first mass-produced amateur camera—the Kodak model of 1888—and was exemplified by the Eastman Dry Plate and Film Company’s advertisement, “You press the button, we do the rest.”<sup>23</sup> The operational simplification implied by Land’s definition is implicit in all mass-produced amateur cameras and cannot be taken as an important new characteristic of his method. However, his earlier claim concerning the simultaneous observation of both subject-matter and photographic work within a very short period of time represents a more fruitful representation of the importance of the process.<sup>24</sup> In response to this claim, the question arises: Does the SX-70 represent a radical break with the photographic tradition and, if so, what kind of break?

The novelty of the general Polaroid process resides in the way existing photochemical knowledge was used. Land observed the following:

It was, therefore, taken as a ground rule for this investigation that, in spite of the facts that standard emulsions yield a negative rather than a positive, and that the formation of this negative requires the use of a reducing agent, presumably associated with some amount of liquid, a way nevertheless had to be found of designing the “dry” camera to use a silver halide emulsion or some equivalent crystalline suspension.<sup>25</sup>

The first one-step photographic process was marketed in 1948. Although the camera form and final positive print were conventional, the relationship between the positive and negative portions of the film proved novel. This relationship consisted of the negative photosensitive film on one roll and the positive film with reagent-containing pods on the other (see Figure 2).<sup>26</sup> The two films passed between a pair of rollers when pulled from the

camera, and the mechanical/chemical action of the process consisted in the bursting of the reagent-containing pods (one for each photograph) by roller pressure. This pressure caused the reagent to be evenly spread between the positive and negative elements which had been brought together when the film passed through the rollers. The development time was one minute and it took place in daylight but within a film or 'darkroom' sandwich. (The first positives were sepia toned.) The notion of a portable darkroom, although not new, became radical in Land's process.<sup>27</sup> This miniature darkroom was made possible by the discovery within the photographic silver processes of DTR (diffusion transfer reversal processes), to which not only Land, but A. Rott and E. Weyde had made important contributions. (The latter two, in contrast to Land, developed the process for photocopying.)<sup>28</sup> This positive process is distinguished by a number of unique characteristics, one of these being that the positive image is the product of the reduction to silver in the positive layer of the unexposed and undeveloped silver halide transferred from the exposed negative material. In this process the positive material is therefore not light sensitive.<sup>29</sup>

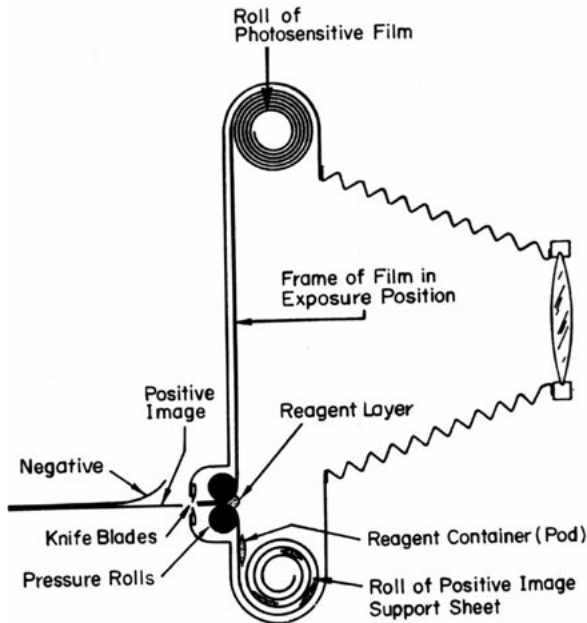


Figure 2

A BLINDING FLASH OF LIGHT

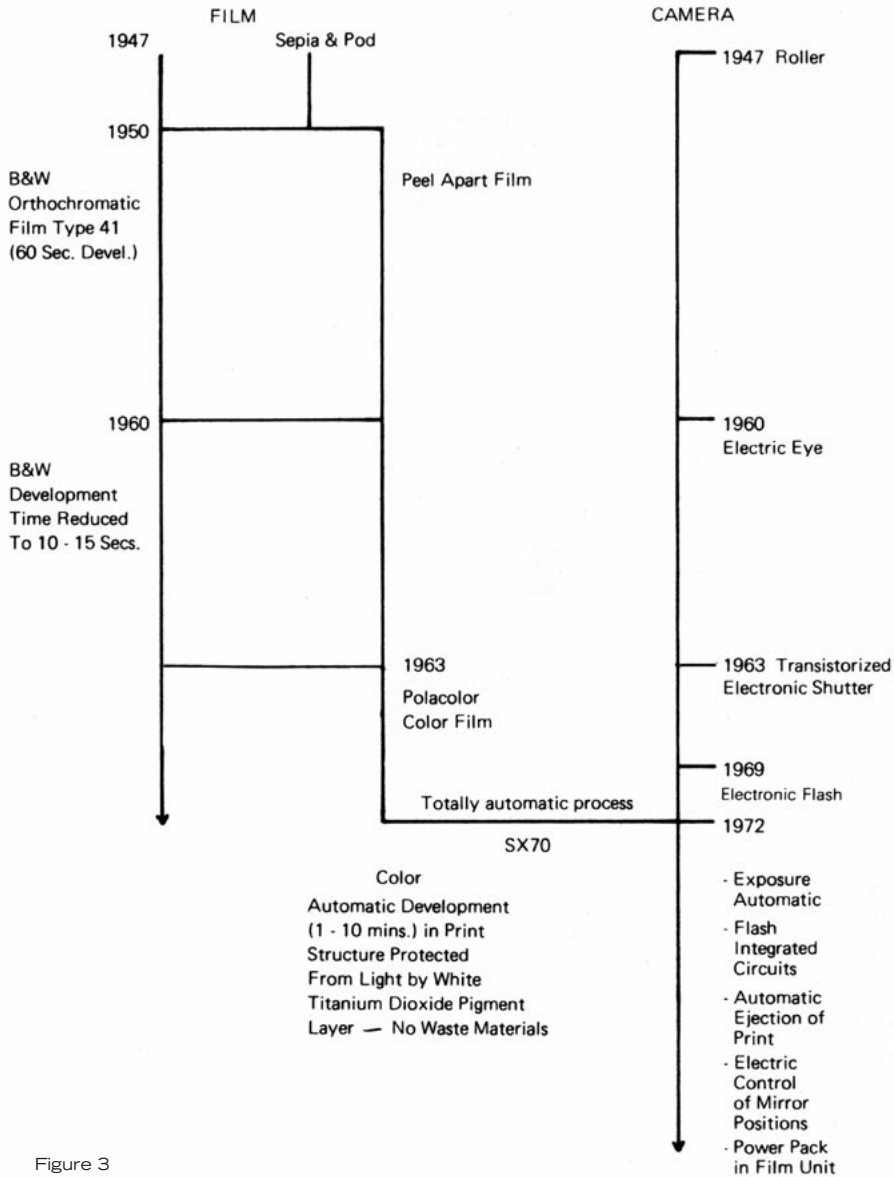


Figure 3



In 1972, the SX-70 was the latest product in the historical and technical evolution of one-step photography (see Figure 3). But it represents, as in the case of the 1948 Model 95 camera, a technical, as opposed to a perceptual, development in photographic technology—that is, the production of “a dry camera which would give” in this case a colour photograph “immediately after exposure.”<sup>30</sup>

The SX-70’s form, although original, was developed in response to limitations concerning portability, size and weight. As a ‘black box’ it is conventional, but there were two main differences between the 1948 film package and the SX-70 film unit. On the one hand, there was a shift from sepia, through black and white, to colour (but as polaroid colour films have been marketed since 1963, it cannot be considered unique to the SX-70). On the other hand, the idea of a negative/positive sandwich with its throwaway negative portion was discarded in favour of a method that permitted the reduction of the darkroom process to within the emulsion structure itself. It is this advance that proves important. Both the negative as waste product and the instant negative were eliminated in favour of a unique colour print that developed automatically in daylight. Within its structure, the print contained built-in mechanisms, not only to terminate processing but also to stabilize the print. The subject would appear and gradually reach its full density over a two-to ten-minute period. During this time it was protected by light-absorbing dyes. The single lens reflex camera, with automatic exposure and picture ejection, was capable of exposing and ejecting the prints at 1.5-second intervals.<sup>31</sup>

A comparison between one-step photography and its traditional counterpart is best illustrated within the context of a progression toward automation. The one common factor is the exposure sequence: choosing the subject and taking the photograph.

Since the late nineteenth century there has been a gradual reduction of the sequence of acts within the photographic ritual as it is presented in the amateur market. The reduction has been toward a totally automatic series of events on the part of the camera, and in the mass laboratory development of the negative and positive material. This reduction of the amateur photographer’s autonomy is inversely proportional to a corresponding increase in both the number of photographers and the influence of manufacturing companies. From the Eastman Dry Plate and Film Company’s 1888 Kodak, to the Polaroid SX-70, the choice of materials for fixing the light image has gradually been taken out of the photographer’s hands. Consequently, the photographer has retained a limited control over subject-matter (its composition and illumination) and absolute control over the act of exposing the negative material to light. Within

this tendency the SX-70 represents an ultimate reduction of the ritual of photography to the act of exposing the film unit to light. But the short development time at the photographic site causes a shift in the relationship between the photographer and his or her subject. It is this shift in the elements, within the context of producing a photograph, that differentiates it from the similar radical simplicity of the first Kodak 1888 camera.

The Kodak reduced the ten operations, which were formerly necessary to produce an exposure, to three: cocking the lens shutter, exposing and winding the film. After the film was exposed, the whole camera was sent to the Eastman Dry Plate and Film Company, where the film was removed and processed. The camera was loaded with new film and returned to the photographer, along with the processed film.<sup>32</sup> The SX-70 further reduces the three operations to one: exposing the film. With the SX-70 the film is sold in cassette form, the camera has an automatic exposure meter, and each film is automatically ejected after exposure. In contrast to the Polaroid processes, there is usually a considerable time gap between the exposing and development of the chemical images in all amateur and most professional photographic situations. It is therefore instructive to compare any structural modifications within the rites of passage (in the photographic ritual represented by the SX-70) with any corresponding modification to the photographer-subject-photograph relationship.

The SX-70, as a black box, does not perform in a different manner when compared to other cameras or its genealogical ancestor, the camera obscura. Within the rite of separation the SX-70 serves as the container for focusing a predetermined amount of light on a light-sensitive material for a predetermined amount of time. The novelty of the process resides in the shift in the relationship between elements of the rites of passage, due to the novel structure of the print. Its characteristics are evident in the 1948 Polaroid peel-apart film sandwich. Within the ritual model of photography, outlined in the first part of the chapter, the Polaroid process marks the collapse of the rites of passage in a very interesting manner.

The Polaroid print is no different in form from any other photographic print: it is a two-dimensional 'surface' image produced by optical, mechanical and chemical means. As a radical object, its novelty resides not in its form but rather in its structure. While it registers roughly the same area of the electromagnetic spectrum as the human eye, the print becomes a means to a new ritual relationship. (Infrared photography is an example of a radical shift in optical content caused by a shift in chemical sensitivity without a corresponding shift in the relationship within the photographic context.)

The sequence of the rites of passage in the 1948 Polaroid process is left intact while being formally modified. The content of the rites, the permutation equation from Light  $\equiv$  Presence to Absence  $\equiv$  Light, is collapsed. Transferring the darkroom procedures associated with the rite of separation and the rite of aggregation to within the print sandwich in the 1948 Polaroid Model 95, collapses the spatio-temporal span of the rite of margin, while still retaining the deconstructed condition within the ritual itself. The latent negative stage of the separation rite is reduced to within the camera, the boundary being the rollers. The action of the rollers and the consequent contact between the negative and positive material indicate that the rite of margin is distinguishable in the negative portion of the darkroom sandwich. But the contact relationship between the negative and positive material, with their near-simultaneous development by the reagent spread throughout the sandwich by roller action, points to the rite of margin's existence only in relation to the positive material—they are no longer autonomous rites. The structural sequence of the new relation as outlined by Allan Porter is as follows: “development of the exposed negative image” (rite of separation), “dissolution of the unexposed silver halide, transfer of the soluble complex to the image receiving layer opposite” (rite of margin), “reduction within that layer to form a positive image of silver” (rite of aggregation).<sup>33</sup> The formation of the positive isn't mediated by light but rather by reagent contact and silver transfer. The negative portion of the sandwich is incapable of reproduction (it is opaque) and is marginal, dirty and chemically polluting. It is thrown out.

The content of the rites, the permutation equation, is modified thus:

Light  $\equiv$  Presence  $\rightarrow$  (Presence  $\equiv$  Darkness  $\rightarrow$  Darkness  $\equiv$  Absence)  $\rightarrow$  Absence  $\equiv$  Light.

Light, which was symbolically excluded from the rite of margin, is now physically excluded by union. Light, formerly the contagious agent in the rite of aggregation, is eliminated in favour of the chemical reagent (see Figure 4). What happens to the image during this passage? The image is inverted and laterally reversed by the lens (the threshold of the camera, and incidentally the threshold to the rites of passage themselves) during the rite of separation. But there is no enlarger lens to correct it during the rite of aggregation. What happens instead is shown in Figure 5.

By the sequence of union, the inverted image is brought into mirror contact with the positive. The lateral reversal of the image is corrected, but the image remains inverted. As it enters the social world one axis is symbolically unnatural and strange. The photographer corrects the inversion by placing it right side up. This intervention symbolically corrects what formerly

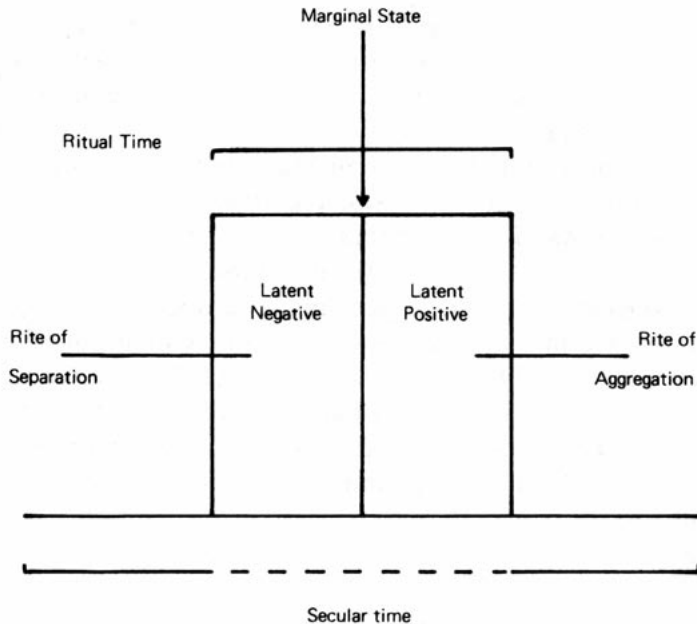


Figure 4

was optically corrected within the rite of aggregation. It is a potent but unnatural act; the potency resides in the photographer's ability to correct the orientation of the image outside the rite of aggregation as formerly conceived. In effect, the photographer becomes a structural component of the rites of passage by this gesture; what was formerly optically corrected within the darkroom has been corrected by the direct gestural intervention of the photographer. How does this sequence associated with the Polaroid Model 95 camera compare with the sequence associated with the SX-70?

The SX-70 camera electronically accelerates the exposure and ejection of the print. The use of a 'taking' mirror in the camera causes a truncation of the rites of separation and aggregation. Within this complex the taking mirror has appropriated the position occupied by the negative portion of the film sandwich in the earlier process. A function of the mirror is to reflect the inverted and laterally reversed image onto the chemically sensitive film unit. As a result of the mirror's intervention, the inverted and laterally reversed image is corrected before the image

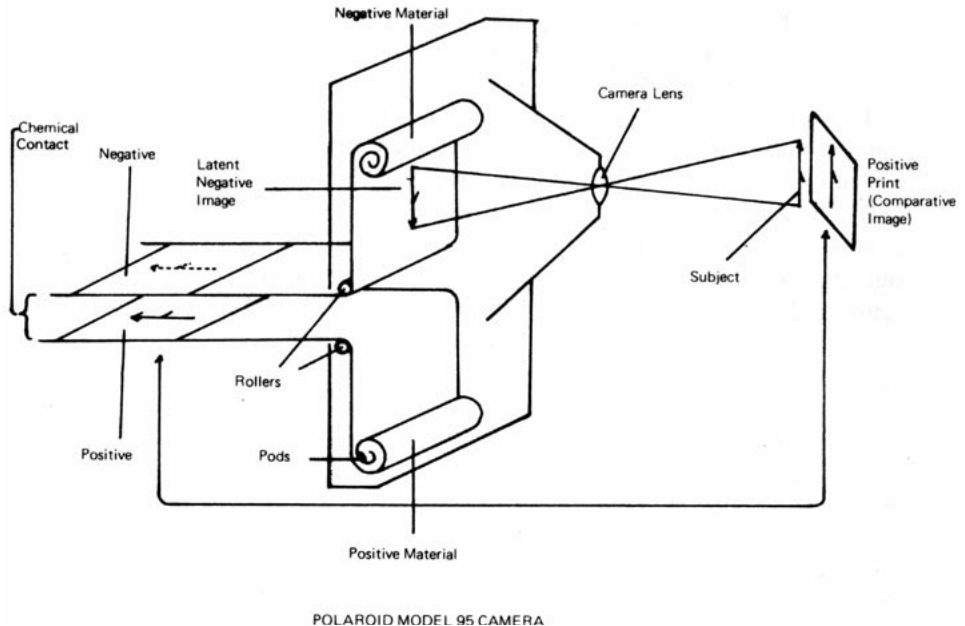


Figure 5

reaches the film sandwich. This correction, in conjunction with the print exit point placed at the front of the camera, causes the SX-70 print to enter the social world correctly oriented and facing the subject. This latter consequence of the camera design is symbolically significant (see Figure 6). The traditional photographic sequence can be schematized as shown in Figure 7. The Polaroid process modified the traditional sequence with the resulting consequences shown in Figure 8, and the SX-70 further modified the earlier Polaroid process, as shown in Figure 9. The use of the taking mirror in the SX-70 effectively separates the optical portion of the rite of separation and the optical portion of the rite of aggregation from the associated chemical permutations. But what is the consequence of the displacement of these optical elements? One would expect to see a change in the film structure such that the image would not need to be corrected by mirror contact development. Simplified, the structure of the SX-70 film unit is shown in Figure 10. It is very similar to the darkroom sandwich idea, except in one specific and very important detail. As opposed to the contact printing of the former process, the SX-70 print is viewed as a transparency against the white pigment compound of

A BLINDING FLASH OF LIGHT

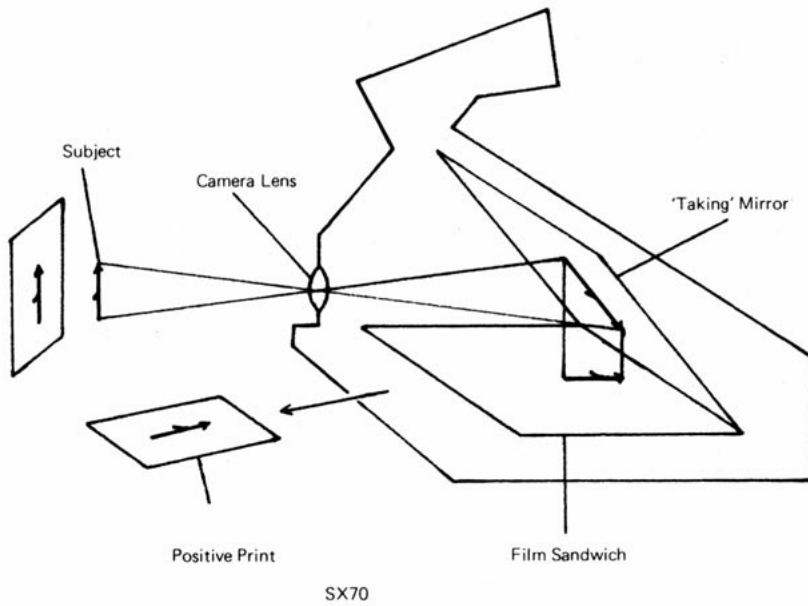


Figure 6

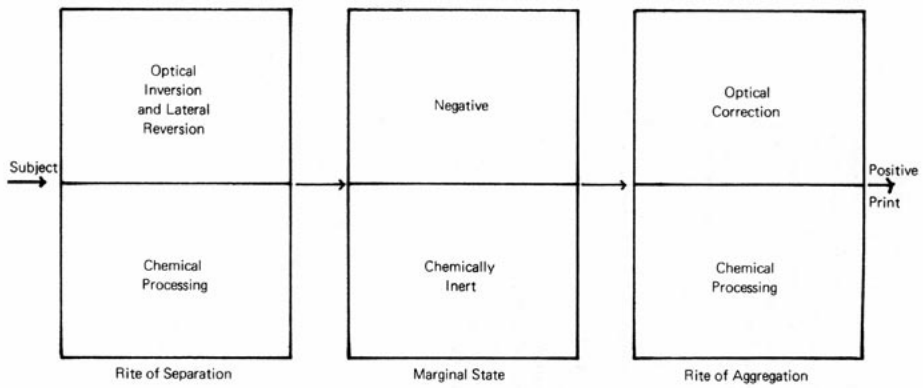


Figure 7

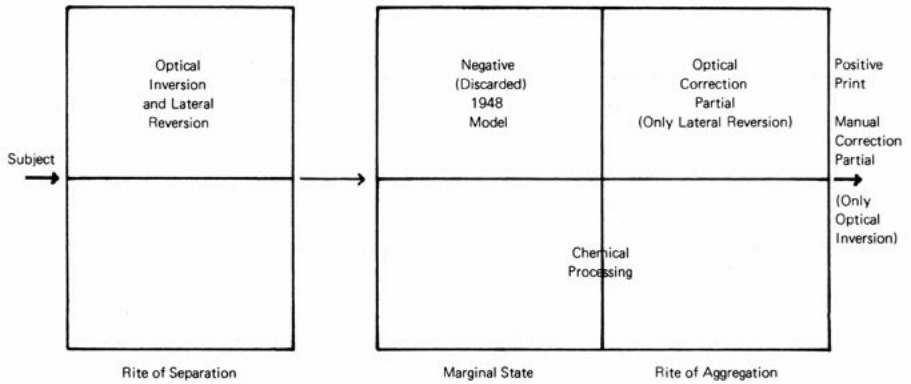


Figure 8

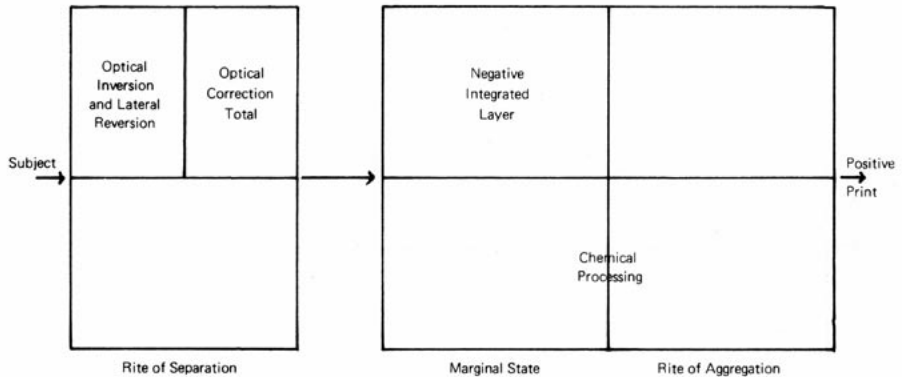


Figure 9

the reagent (see Figure 11). It is therefore in complete symmetry with the already corrected negative. This explains the optical inertness of the rite of aggregation. What does this signify from the viewpoint of a photographic rites of passage?

First, the order and status of the rites of passage are not destroyed. Second, the apparent novelty of the process can be traced to the reorganization of the elements within the rites, particularly

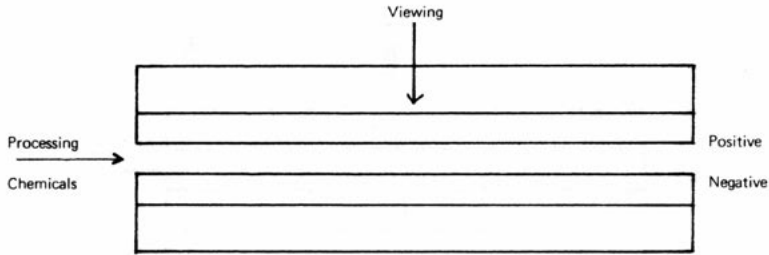


Figure 10

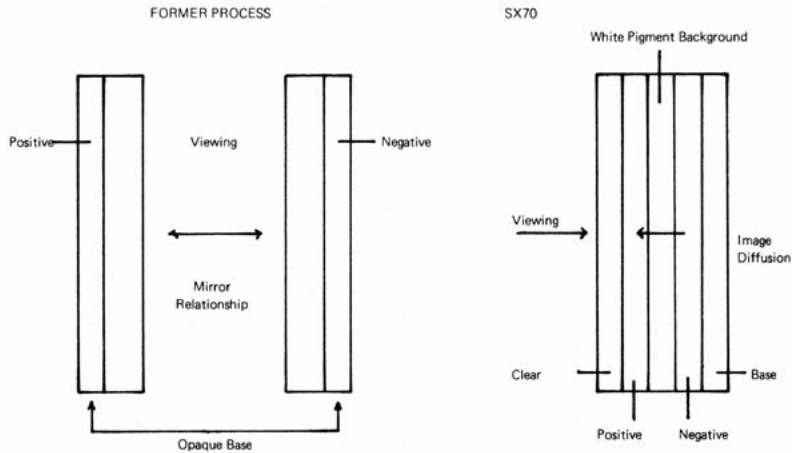


Figure 11

as concerns the collapsing of the spatio-temporal gap between the rite of margin and the rite of aggregation. Modifications within the new organization are due to a rearrangement of the optical and chemical elements within the system. What are the implications of this reorganization for the relationship between the photographer and subject?

On the one hand, with the Polaroid process the subject is directly confronted with a comparative image—it can be ‘instantly’ compared. Inversely, the photographer confronts the subject



in the act of possessing it. This act of possession is normally symbolized by the framing of the subject and is, of course, processed by the rites of passage. With the SX-70, the act of possession is consummated by the camera's symbolically 'handing' the print to the subject.

In traditional photography the time lapse between the initial exposure and final positive printing is long enough for the print to become autonomous. The print becomes a memory aid, and is independent of the development agent. At the same time, the intention of aiding the memory can be complicated by darkroom manipulation. This idiosyncratic manipulation has as its aim the creation of an independent object by the distortion of the formal relationship between Light  $\equiv$  Presence and Light  $\equiv$  Absence. The Polaroid process, on the other hand, causes, by its particular structure, a direct symbolic possession of the subject. It achieves this by the collapse of the spatio-temporal independence of the rite of margin and the rite of aggregation. This speeds up the developing process so that these rites are now represented in the SX-70 by the gradual appearance of the colour image while at the photographic site. The possession is signified by the direct confrontation of the subject by the subject's image.

Finally, if the traditional photograph implies a multitude of possibilities and choices (by darkroom manipulation, for example), then, as Land suggests, the SX-70 print has a built-in aesthetic:

The observer views the print through the clear plastic support. Light comes down through the image layer, strikes the white pigment, is reflected back through the image layer and back to the eye. One reason that the pictures have a quality of "translucency" is that there is no structure at all to the dye image, even at the microscopic level, and the mordanted dyes are seen against the white pigment layer, which is virtually grainless.<sup>34</sup>

The attainment of image translucency and grainlessness heightens the sense of illusion, while simultaneously adopting a grainless aesthetic. This, coupled with a constant print size of  $3\frac{1}{2} \times 4\frac{1}{4}$  inches (with a picture area of approximately  $3\frac{1}{8} \times 3\frac{1}{8}$  inches) points to a complete standardization of the print. This implies that change is possible only by way of subject, or modification to the chemical structure of the photograph itself. Aside from the latter possibility, the photographer has a standard critical measure with which to confront his subject. The SX-70 can be said to create, more than any other amateur camera up to the early 1970s, the possibility of a critical attitude between the photographer and his or her subject. Land states that "by giving him a camera system with which he need only control his

selection of focus, composition and lighting, we free him to select the moment and criticize immediately what he has done. We enable him to see what else he wants to do on the basis of what he has just learned.”<sup>35</sup>

The subject is evaluated by the symbol of its permanence—the transient is criticized by the permanent. One can conclude with Van Gennep that “for groups, as well as for individuals, life itself means to separate and to be reunited, to change form and condition, to die and to be reborn. It is to act and to cease, to wait and rest, and then to begin acting again, but in a different way. And there are always new thresholds to cross...”<sup>36</sup>

*This text was originally published in Semiotica, vol. 40, no. 1/2 (1982), 1–25.  
It has been edited for the present publication.*

## 2.2 A MECHANISM FOR MEANING: A RITUAL AND THE PHOTOGRAPHIC PROCESS

*... only in the name of a naive realism can one see as realistic a representation of the real which owes its objective appearance not to its agreement with the very reality of things (since this is only ever conveyed through socially conditioned forms of perception) but rather to conformity with rules which define its syntax within its social use, to the social definition of the objective vision of the world; in conferring upon photography a guarantee of realism, society is merely confirming itself in the tautological certainty that an image of the real which is true to its representation of objectivity is really objective.*

Pierre Bourdieu<sup>1</sup>

In China, it has been noted, photography is officially a homogenous and formal procedure—it involves consent and posing; it is in fact stylized—a social ritual. Its function is social cohesion—some subjects are endorsed and some methods valid—and it is didactic, reinforcing the common good and aiming to perpetuate a particular *Weltanschauung*. Thus, as Susan Sontag observes, “The Chinese resist the photographic dismemberment of reality.”<sup>2</sup> In contrast, the proliferation of images in capitalist countries is attributed by Sontag to a plurality of image types and production procedures; photography is a heterogeneous activity geared to consumption and recycling—a reproduction of the ‘real.’ The function of images, the new uses and meanings ascribed to these images, involves a capitalist need for a culture based on images—a need to develop a social ideology of consumerism. Sontag also points out that it achieves this by furnishing entertainment (which acts as a stimulant) and information (to rationalize its productivity):

The camera’s twin capacities, to subjectivize reality and to objectify it, ideally serve these needs and strengthen them. Cameras define reality in the two ways essential to the workings of an advanced industrial society: as a spectacle (for masses) and as an object of surveillance (for rulers).

The production of images also furnishes a ruling ideology. Social change is replaced by a change in images. The freedom to consume a plurality of images and goods is equated with freedom itself. The narrowing of free political choice to free economic consumption requires the unlimited production and consumption of images.<sup>3</sup>

Within the capitalist paradigm the camera can be seen as a means for achieving unity in a pluralistic world—it reduces all, so that under the hegemony of the image it is reproducible, recyclable, portable, consumable. The photographic dismemberment of a reality conceived as pluralistic, and its unification under the hegemony of the reproducible image, is a fact of capitalist cultural life. But, generally speaking, both these cultural uses of photography—the result of a social ‘one class’ conception of society as in China, or a group-oriented ethos as in the capitalist class-differentiated societies—are conceived within a model based on social praxis.<sup>4</sup> One can conclude with Robert Castel that:

Through photography, it is possible to grasp deeper attitudes. Everything takes place as if photography captures activities that are pre-existent to it. This is not true only in its own field, that of depicting reality. For example, in the case of engraving, which met the needs of both aesthetic creation and of reproducing reality, press photography brought instantaneous witnessing into play, freeing engraving up for purely artistic uses. The kind of photographic activity can also and above all express a group ethos, an awareness of distance from other groups, forms of aspiring to social prestige, etc. The way photography is used (the choice of one kind of photography over another, the importance granted to photographic activity in general, etc.) is thus the sign of deeper social attitudes.<sup>5</sup>

Historically, as Marshall McLuhan points out, “The step from the age of Typographic Man to the age of Graphic Man was taken with the invention of photography.”<sup>6</sup> The photograph, in fact, offered a more satisfactory solution to the problem and paradox of permanence, a problem formerly dealt with by the illusionistic and mechanical arts. Walter Benjamin has noted that the revolution it created within pictorial reproduction was predicated on the usurpation of the functions of the hand by the eye: “Since the eye perceives more swiftly than the hand can draw, the process of pictorial reproduction was accelerated so enormously that it could keep pace with speech.”<sup>7</sup> The photograph in all its forms now functions as a form of speech; its revolutionary effect within the domain of pictorial reproduction parallels the impact of the printing press in terms of its capacity to handle and reproduce information.

However, its historical impact, its social presence as a method of reproduction, masks its origins and nature.

The origins of the activity of photography are not only to be sought in the mechanical arts of reproduction (the camera obscura), or ideologically in the function of the physionotrace,<sup>8</sup> but also in chemistry, symbolically in the mirror, and finally in the function of human memory—an agent for the cognitive reconstruction (true or false) of continuity and permanence. Note the following statement by John Berger: “It is just possible that photography is the prophecy of a human memory yet to be socially and politically achieved. Such a memory would encompass any image of the past, however tragic, however guilty, within its own continuity. The distinction between the private and public uses of photography would be transcended.”<sup>9</sup>

In this chapter it will be argued that in practice the photograph (a secular symbol of eternity) is the end product of a ritual process; a practical and democratic form of cognitive notetaking; an affirmative denotation of a past presence, event, or activity and its connotation of memory aid. The photograph is not independent of ritual context, as Benjamin suggests,<sup>10</sup> but is a ritual process; its function is to resolve a fundamental cognitive contradiction, that of the gap between the mental construction of permanence and the visual disjunction between momentary states (see the previous chapter, p. 98–100)—hence, the connotation of memory aid. As a gesture of possession, reconstruction and preservation, the photograph is a memory aid; as a collective message, it brings order by way of permanence; and as a totem of an industrial age, it is a profane form of Churinga.<sup>11</sup>

In its quintessential form, as a portrait of people or things, each photograph can be conceived as symbolizing order and permanence; and as a technological process it can be conceived as a product marking the triumph of the democratic political aspirations of the French nineteenth century bourgeoisie.<sup>12</sup> The first successful chemical fixing of a photograph was achieved in 1822 by a bourgeois of royalist tendency, Joseph-Nicéphore Niépce. This process was exploited by his son Isidore and Louis-Jacques-Mandé Daguerre (a painter and inventor of the diorama). Supported by François Arago, an influential scientist and leader of the left-wing democratic faction of the Republican party in the Chamber of Deputies, the resulting daguerreotype photographic process was acquired and made public by the French government on August 19, 1839. As a process, photography was not so much based on the practice of politics as Benjamin argues,<sup>13</sup> but on a symbolic condensation of a philosophy of political action—order and permanence—as conceived by a social class. This condensation

achieved praxis as photographic activity. Its political significance lay in the relation between its function and its technological character. From its expensive and complex craft origins, which confined its use to monied amateurs and professionals such as scientists, photographic activity (as it became increasingly industrialized and automated) exploited its economic and democratic potential and would be appropriated by other social classes—everyone could become an author. This appropriation would be facilitated by its unique position as mediator between the individual and the group, the private and the public domains of social life. As Castel points out:

There are different kinds of ritualism. There is the stereotyped ritualism of mental pathology, whose caricature is obsessive neurosis. The signs of this are purely subjective and the logic which orders them can only be grasped through a series of transformations that psychoanalysis tries to understand, even though this logic, in the first place, is impenetrable to the very person who is mimicking it in their behaviour. There is social ritualism, which orders the great events of collective life; here, symbols and the way they are organized are objective and are immediately perceptible. But photography's status illustrates, among other activities, an intermediary ritualism, which also mediates between the other two kinds of ritualism. Here the signs are personal in as much as they refer back, like those of pathology, to the singularity of an individual history. Nevertheless, their organization remains objective because it is society which provides the ceremonial object and the particular group the way it is used.<sup>14</sup>

The child of an age that witnessed the birth of both Karl Marx (1818–1883) and Sigmund Freud (1856–1939), photography, as a means for the production (the reconstruction) of a disjunctive but permanent public and private cognitive order, would provide an interface between the fields of anthropology, political economy, psychology and sociology.

The nature of the photograph has proved to be of considerable interest to analysts.<sup>15</sup> For example, Roland Barthes developed a psycho-sociocultural distinction between what he termed the 'studium,' and the 'punctum.'<sup>16</sup> The studium, which is based on a taste that meets the objective (relating to the photographer's intentions), is the sociocultural field of a photograph:

... that very wide field of unconcerned desire, of various interest, of inconsequential taste: *I like/I don't like...* To recognize the *studium* is

inevitably to encounter the photographer's intentions, to enter into harmony with them, to approve or disapprove of them, but always to understand them, to argue them within myself, for culture (from which the *studium* derives) is a contract arrived at between creators and consumers.<sup>17</sup>

The punctum is psychologically analogical to a point or a pinprick finding its origins in a photographic detail or quality. It can be described as a collapsing of the temporal bridge between the photograph and the spectator, as a type of umbilical cord formed by the photographic quality of a 'crisis of death' associated with the past/present presence of a photograph. It functions to disturb the studium: "For *punctum* is also: sting, speck, cut, little hole—and also a cast of the dice. A photograph's *punctum* is that accident which pricks me (but also bruises me, is poignant to me)."<sup>18</sup>

Contemporary analyses of the nature of the photograph, as distinguished from its history, have been primarily oriented toward an understanding of the impact or social uses of the photographic image (for instance, the analyses of the sociological dimensions involved in the use of photography in Pierre Bourdieu, *Photography: A Middle Brow Art*) or they have been concerned with mapping the semiological layers of the photographic structure.<sup>19</sup> To my knowledge, no attempt has been made to examine the type of sociocultural structure within which each 'subject'<sup>20</sup> can be coerced into a social role—a particular function. The structural distinction in question concerns a dual approach to a semiology of photography—the one classifiable by way of a 'paradigmatic' examination of the image, the other by way of a 'syntagmatic' examination of the sociocultural structure, a 'syntactics' of the photographic process as a mechanism for meaning. These analytic orientations can be further refined into analyses based on class, profession, or group functions (socioculturally, historically, or otherwise) and including the more personal psycho-historical analyses ('paradigmatic' orientations), in contrast to an examination of the collective social structure and function of the 'photographic process as a ritual system,' a cultural ceremony (a syntagmatic orientation). Both these paths, however, lead to the same point: an attempt to define (or map out) an understanding of what a photograph is, or what it represents. As methods of analysis, these are complementary rather than mutually exclusive. The argument to be advanced in this chapter is based on the assumption that the complexity of photographic praxis, its cultural and social versatility, its omnivorousness and omnipotence as a representational and reproductive methodology, cloud and therefore obscure its core—a core with a particular cultural structure and fundamental social function. Whether one is in China or in America, to produce a photograph (privately

or publicly) is to involve oneself in a particular ritual process, and the fixed image is the end product of this process. This conception of the photographic process as a ‘transcultural structure’ is only tenable if the photographic image (the particular subject) and the carrier medium (the photographic structure) can be meaningfully separated.

This chapter will present an argument based on an internalist/externalist analytic distinction supporting the outlines of a syntactic model of the photographic process as a transcultural structure. The argument will then be used to examine the relations between this model and the photographic image/subject.

### A Syntactic Model of the Photographic Process

Hypothetically, in the beginning there was a photographic *tabula rasa*—what Barthes refers to as the ‘brute photograph’: “Man’s interventions in the photograph (framing, distance, lighting, focus, speed) all effectively belong to the plane of connotation; it is as though in the beginning (even if utopian) there were a brute photograph (frontal and clear) on which man would then lay out, with the aid of various techniques, the signs drawn from a cultural code.”<sup>21</sup> A photograph can be treated as a product and a channel, in terms of an origin and destination, or by examining it as “an object endowed with a structural autonomy”<sup>22</sup>; one can approach it either ‘externally’ or ‘internally,’ so to speak.

For example, Bourdieu and others have developed an ‘external’ sociological approach:

In other words, the range of that which suggests itself as really photographable for a given social class (that is, the range of ‘takeable’ photographs or photographs ‘to be taken,’ as opposed to the universe of realities which are objectively photographable given the technical possibilities of the camera) is defined by implicit models which may be understood via photographic practice and its product, because they objectively determine the meaning which a group confers upon the photographic act as the ontological choice of an object which is perceived as worthy of being photographed, which is captured, stored, communicated, shown and admired. The norms which organize the photographic valuation of the world in terms of the opposition between that which is photographable and that which is not are indissociable from the implicit system of values maintained by a class, profession or artistic coterie, of which the photographic aesthetic must always be one aspect even if it desperately claims autonomy. Adequately understanding a photograph...



means not only recovering the meanings which it *proclaims*, that is, to a certain extent, the explicit intentions of the photographer; it also means deciphering the surplus of meaning which it *betrays* by being a part of the symbolism of an age, a class or an artistic group.<sup>23</sup>

In contrast to his later emphasis on the social conditions for the production and consumption of the photograph (a concern for its social uses), in 1961 and 1964 Barthes outlined an ‘internalist’ approach based on a cursory examination of two public forms of photography—the press and advertising photograph. His analysis, at that point in time, hinged on a semiological distinction between the denotative and connotative layers of a photographic image. This sedimentation forms the paradox of the photograph. It is a dual system: the one, an analogue, “a message *without a code*,” a continuous message, a styleless ‘objective’ reproduction of reality (its denotative layer); and the other, an associated connotative coded message grafted onto the former—“the ‘art,’ or the treatment, or the ‘writing,’ or the rhetoric, of the photograph”—its significations. It is the connotative layer that mediates, in this model, integrating the natural and the cultural: “Doubtless because photographic connotation, like every well structured signification, is an institutional activity; in relation to society overall, its function is to integrate man, to reassure him.”<sup>24</sup> Barthes expressed scepticism, in these articles, about the possible survival of the denotative layer (except, perhaps, in truly traumatic photographs). As a consequence, his postulated brute photograph was elevated to the level of a utopian entity. Its ‘relegation to reality’ is possible only if the denotative layer—the message without a code—is culturalized, is eliminated in favour of an initial ‘coded’ core that produces ‘a ritual of photography’ with its associated social structure and function. With the materialization of the brute photograph on the cultural stage, some interesting consequences ensue with regard to an outline of a model for the photographic mechanism for meaning.

From an external vantage point the photographic process can profitably be conceived as a ritual—a social ceremony—and it can be modelled in terms of its social structure and function. The photograph as the end product of the photographic ceremony occupies a particular segment of social reality. In effect, it represents the culturalization and/or socialization of two particular aspects of nature: light and absence. It achieves this by reconciling their contrariness within its structure. The culturalization of these two aspects is achieved by a permutation equation articulating light and absence in terms of their opposites: darkness and presence. The equation is socially processed by a ritual production structure, the form of which is based on the rites of passage.<sup>25</sup>

Briefly, the structure of production is composed of the following: a rite of separation (the preliminal period), which optically inverts and laterally reverses the subject while making it portable by means of a physical and dimensional reduction; a rite of margin (the liminal state), a condition of the subject's physical negativeness; and a rite of aggregation (the postliminal period), a 'positive' condition for the subject marked by an optical correction, in terms of its former state of inversion and lateral reversal. The subject is now both permanent and stable as an image in society. The production structure is therefore a cognitive ritual. The ritual processes a permutation equation comprised of the following two pairs of binary opposites: light and darkness, presence and absence. Why these particular pairs of terms?

It can be argued that light physically functions as an index of the visual range of the electromagnetic spectrum, and darkness as an index of its absence. Hence, within this paradigm light would be isomorphic with presence (its presence), and darkness with absence (its absence). Light also symbolically connotes order (in the sense of revealing, it is in this case the mediator of vision), and presence connotes permanence (again, in this case as a light stasis). Inversely, of course, darkness connotes disorder (the non existence of a mediator for vision) and absence connotes impermanence (in the sense of absence of a light stasis). There is also the connotation of movement from light presence, the agent of visual knowledge, to darkness, its absence. Within this isomorphic system the relations are fixed (see Figure 1). This tautology can, however, be broken (see Figure 2). This non-isomorphic system implies a contradictory visual world. The isomorphic pairs describe a visual world, a world of seeing or not seeing. We can see with the aid of light; in darkness we cannot. The non-isomorphic pairs imply potential (the possibility of not seeing with the aid of light, the possibility of seeing in darkness), and can become isomorphic under a particular set of physical conditions (the photographic process). Under these latter conditions, we would symbolically have the impermanence of order (absence-light) and the permanence of disorder (presence-darkness). Again, contradictions would be resolved, physically condensed into signs, as a result of the photographic process. Returning to the isomorphic systems: the relation of light/presence is to darkness/absence as the relation of culture is to nature. In the non-isomorphic systems the pairs are mixed 'culture/nature' (it will be seen that the natural elements are in fact culturalized by the ritual production process of photography).

Within this paradigm of visual knowledge, sight presents itself not only as the primary mechanism controlling locomotive activity within a three-dimensional space, but as the primary sense organ. As Benjamin has pointed out, the eye, with the invention of photography

(the mechanical), took over from the hand (the artisan) and rivalled speech in terms of speed.<sup>26</sup> By implication, the eye circumvented writing, which was related to drawing, a slower productive activity. What code has provided the means to achieve this hegemony of the photographic image? Structurally the terms light, darkness, presence and absence find stability within the logical form of the semantic square (see Figure 3).

How does one situate the photographic process in relation to the model shown in Figure 3? Two points should be made that will provide a temporal context for the problem. The act of photographing is a strategy aimed at the future; it is an attempt to place the present at

the service of a future state or condition. Inversely, the act of looking at a fixed photograph implies a reversing of the former strategy, for it aims at placing the past at the service of a present state or condition. Schematically, these temporal strategies can be summarized as in Figure 4. The present (presence) becomes past (absence), the future (absence) becomes present (presence). The hypotheses advanced at the beginning of this chapter suggested that photography as a ritual process (a) was an attempt “to resolve a fundamental cognitive contradiction, that of the gap between the mental construction of permanence and the visual disjunction between momentary states”; and (b) that it represented “a symbolic condensation of a philosophy of political action—order and permanence.”

As an action, photography would seem to represent a filling in of the visual disjunction between momentary states, as is implied, for example, in Jean Piaget’s theory of the development of a conception of the permanence of objects in children. In the case of photography, however, it is symbolic, to be conceived more as an attempt to construct an aid, a bridge, over this fundamental cognitive contradiction. It is this bridge that represents the act of making permanent in the form of a photograph. It is interesting to note, in this connection, that the temporal context spanning photographic activity implies a fusion of the future and the past by way of the present (see Figure 5).



Figure 1

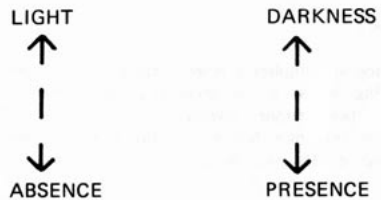


Figure 2

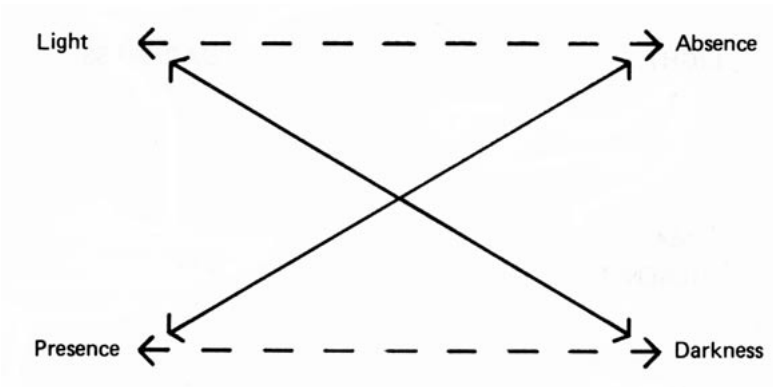


Figure 3

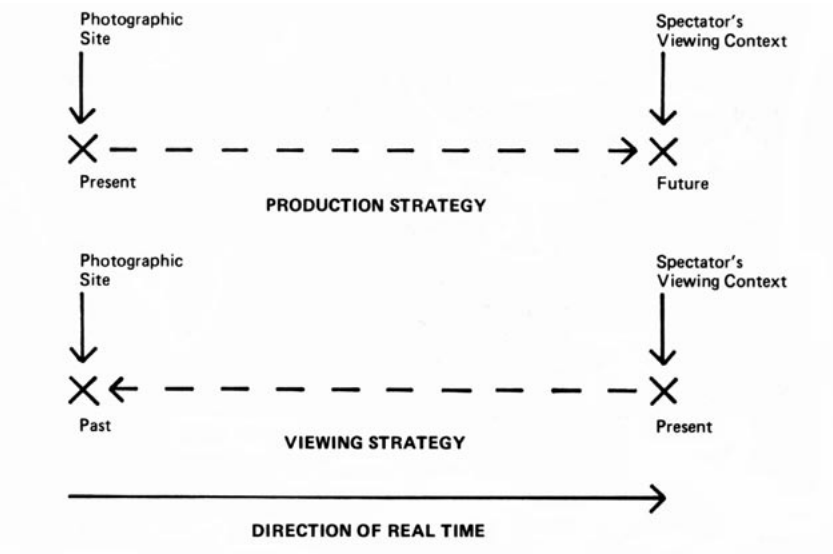


Figure 4

The 'bridge of permanence' is formed by the strategic movement from the present of the production strategy to the present of the viewing strategy. This movement alienates the present by distorting the future and the past in terms of desires represented by the production strategy and the viewing strategy: the present becomes past, the future becomes present, and order is

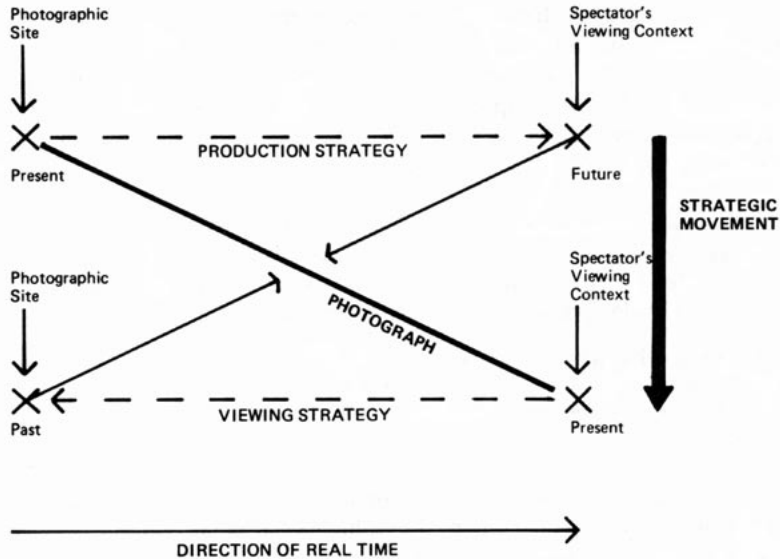


Figure 5

imposed on the natural flux as it is given a permanent form in the photograph. Berger has pointed out:

Yet, unlike memory, photographs do not in themselves preserve meaning. They offer appearances—with all the credibility and gravity we normally lend to appearances—prised away from their meaning. Meaning is the result of understanding functions. “And functioning takes place in time, and must be explained in time. Only that which narrates can make us understand.” Photographs in themselves do not narrate. Photographs preserve instant appearances. Habit now protects us against the shock involved in such preservation. Compare the exposure time for a film with the life of the print made, and let us assume that the print only lasts ten years: the ratio for an average modern photograph would be approximately 20,000,000,000:1. Perhaps that can serve as a reminder of the violence of the fission whereby appearances are separated by the camera from their function.<sup>27</sup>

The violence of the fission of appearances from their functions is matched only by the violence of the fusion of the future and the past into the photographic emulsion, with its consequent alienation of the present. It is this violence that is represented in the positive photographic sign, the final relation, Light  $\equiv$  Absence, emerging from a permutation equation.<sup>28</sup> One can now present the permutation in terms of its structure and function.

The photograph's temporal structure, as represented by the positive photographic subject, is its conventional paradox. Light  $\equiv$  Absence, the positive sign of the photographic paradox, the appearance as proof of the simultaneous fission of appearance/function and fusion of future/past, lies at the base of what Barthes termed photography's "madness"<sup>29</sup>:

... it accomplishes the unheard-of identification of reality (*that-has-been*) with truth ('there-she-is!'); it becomes at once evidential and exclamative; it bears the effigy to that crazy point where affect (love, compassion, grief, enthusiasm, desire) is a guarantee of Being. It then approaches, to all intents, madness; it joins what Kristeva calls '*la vérité folle*'... The Photograph then becomes a bizarre *medium*, a new form of hallucination: false on the level of perception, true on the level of time: a temporal hallucination, so to speak, a modest, *shared* hallucination (on the one hand 'it is not there,' on the other 'but it has indeed been'): a mad image, chafed by reality.<sup>30</sup>

This madness is confined to within the photograph's frame—it defines the temporal paradox of content. Revealing in this regard is the effect of a human presence in the photograph—"I entered crazily into the spectacle, into the image, taking into my arms what is dead [the past], what is going to die [the future]..."<sup>31</sup> In this context, from an 'internal' point of view, the paradox is near the surface; with other image contents, the paradox is submerged under layers of connotations that gloss the surface with implied functions, diffusing the violence of the paradox through further cultural signs and codes.

Within the photographic ritual a permutation equation not only transforms but channels the energy released from the simultaneous fission and fusion into an acceptable form for society—a stable sign. The rites of passage, the structure of ritual production, provide social insulation to contain the fallout; the permutation equation is processed by these rites. The photographic ceremony, in effect, articulates the two sets of contradictions—Absence  $\equiv$  Light and Presence  $\equiv$  Darkness—in the following transformational permutation:

Light  $\equiv$  Presence  $\rightarrow$  (Presence  $\equiv$  Darkness)  $\rightarrow$  Darkness  $\equiv$  Absence  $\rightarrow$  (Absence  $\equiv$  Light)  
 Inversion Inversion

Each permutation pair is processed with its associated rite (see Figure 6).

The photographic ritual has bestowed presence on the absence of the photographic subject; it has processed the light image, and transposed it into a chemical analogue.<sup>32</sup> The ritual therefore functions symbolically to mark the death of the subject by its optical and dimensional transformation. It further freezes the unstructured subject during a period of ritual and sacred isolation and finally marks the reintroduction or reincarnation of the subject into society by means of its restructuring in the form of a new ‘photographic’ state of social and symbolic timelessness and spacelessness. This explanation of the photographic process—incorporating aspects of Barthes’s 1961 and 1964 semiological analyses, the ritual production process, and the permutative transformation can be visualized in terms of a diagram of the rites of passage, which, interestingly enough, is suggestive of a bridge.<sup>33</sup> The diagram presents the photographic process as a ‘channel’ through which the exposed image moves (see Figure 7). The schema situates the internalist and externalist orientations to photographic meaning. The model shown in Figure 7 also provides the grounds for effectively eliminating Barthes’s connotative methodology from a direct consideration within an analysis oriented toward isolating photography’s mechanism for meaning.

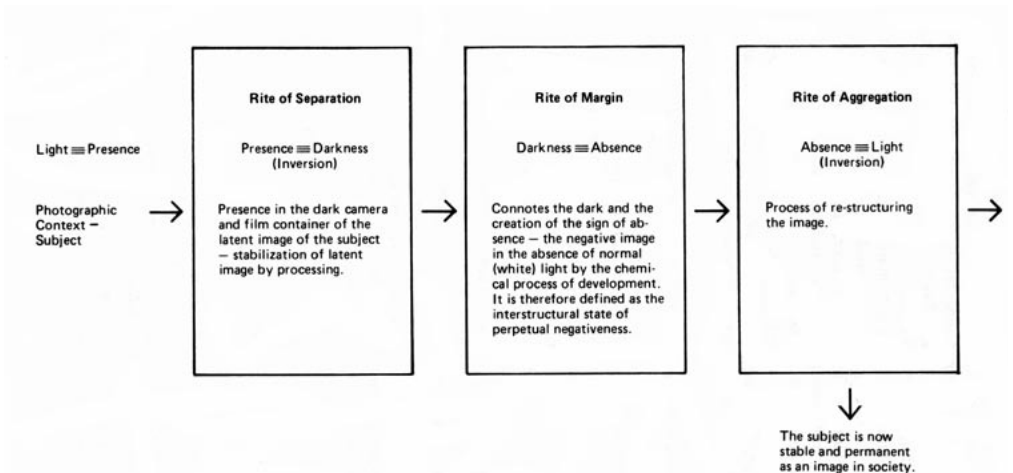


Figure 6

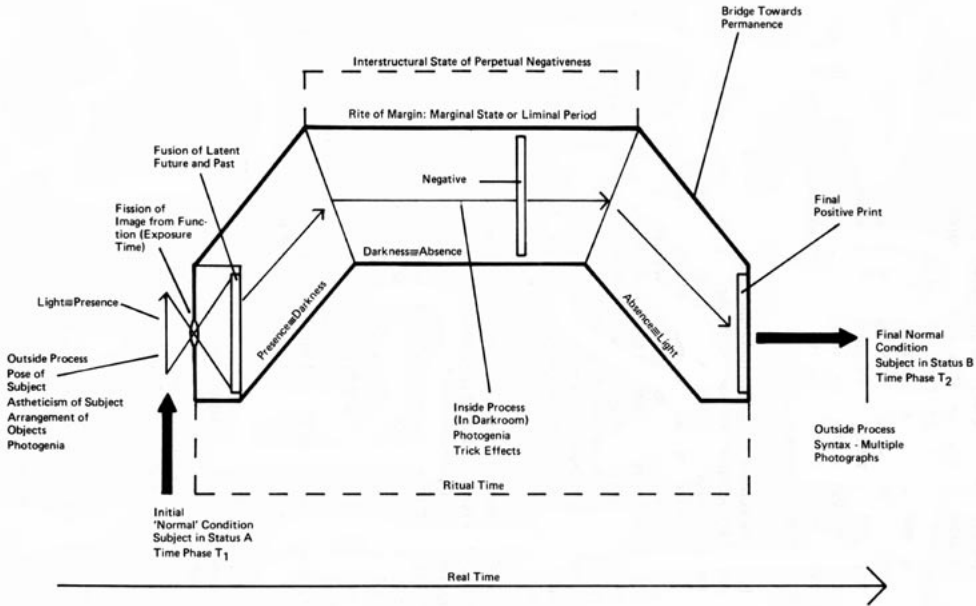


Figure 7

The connotative methodology—the on-site manipulations (pose, arrangement of objects, photogenia—lighting techniques, exposure, etc.) and aestheticism; manipulations within the rites of passage (particularly in the darkroom—trick effects and photogenia involving printing techniques); and syntactical manipulation of the final positive prints to form quasi-continuous narrative structures—raise questions of craft, not structure (photographic style being the result of an interaction between craft and choice of subject).<sup>34</sup> The difference proves to be fundamental. Generally speaking, craft is oriented toward the manipulation of the subject—the photographic image—and not toward the structure of either the rites of passage or the permutation equation.

Further support for this internalist concern with the subject is provided by examining Barthes’s attitude toward the analogical character of the image—its ‘utopian’ styleless denotative quality:

What is the content of the photographic message? What does the photograph transmit? By definition, the scene itself, the literal reality. From



the object to its image there is of course a reduction—in proportion, perspective, colour—but at no time is this reduction a *transformation* (in the mathematical sense of the term). In order to move from the reality to its photograph it is in no way necessary to divide up this reality into units and to constitute these units as signs, substantially different from the object they communicate; there is no necessity to set up a relay, that is to say a code, between the object and its image. Certainly the image is not the reality but at least it is its perfect *analogon* and it is exactly this analogical perfection which, to common sense, defines the photograph.<sup>35</sup>

The transformation Light  $\equiv$  Presence into Absence  $\equiv$  Light is achieved by means of a relay—a code functioning in relation to, as well as processed by, the rites of passage that symbolically code the message (the photographic image). These codes form concentric ‘channels,’ metaphorically speaking, through which passes “the ‘art,’ or the treatment, or the ‘writing,’ or the rhetoric, of the photograph.”<sup>36</sup> It must be noted that in his last book on photography Barthes had refined his position. This new position, closely resembling his 1961 and 1964 statements, was again focused on the subject—the photographic image—but from the point of view of its temporal paradox:

It is precisely because the Photograph is an anthropologically new object that it must escape, it seems to me, usual discussions of the image. It is the fashion, nowadays, among Photography’s commentators (sociologists and semiologists), to seize upon a semantic relativity: no ‘reality’ (great scorn for the ‘realists’ who do not see that the photograph is always coded), nothing but artifice: *Thesis*, not *Physis*; the Photograph, they say, is not an *analogon* of the world; what it represents is fabricated, because the photographic optic is subject to Albertian perspective (entirely historical) and because the inscription on the picture makes a three-dimensional object into a two-dimensional effigy. This argument is futile: nothing can prevent the Photograph from being analogical; but at the same time, Photography’s *noeme* has nothing to do with analogy (a feature it shares with all kinds of representations). The realists, of whom I am one and of whom I was already one when I asserted that the Photograph was an image without a code—even if, obviously, certain codes do inflect our reading of it—the realists do not take the photograph for a ‘copy’ of reality, but for an emanation of *past reality*: a *magic*, not an art. To ask whether a photograph is analogical or coded is not a good means of analysis. The important thing is that the photograph possesses an

evidential force, and that its testimony bears not on the object but on time. From a phenomenological viewpoint, in the Photograph, the power of authentication exceeds the power of representation.<sup>37</sup>

The importance of the temporal in the photograph was hinted at by André Bazin in “The Ontology of the Photographic Image” (1945).<sup>38</sup> This dimension was distinguished by Barthes through the contrast between the “*here-now*” and the “*there-then*” with “its reality that of the *having-been-there*, for in every photograph there is the always stupefying evidence of *this is how it was*, giving us, by a precious miracle, a reality from which we are sheltered.”<sup>39</sup> This temporal distancing is probably the mechanism that could explain (contrary to Benjamin’s analysis of its decline in the age of mechanical reproduction) the existence of an “aura” in photographs. What Benjamin refers to as the “unique phenomenon of a distance, however close it may be”<sup>40</sup> is in fact not eliminated by the photograph as reproducible object (its reproducibility) or the withdrawal of the human presence as subject-matter leading to a development of its exhibition value. The photographic aura is a consequence of the temporal dimensions of the image, the “this is how it was” authenticated by the “having-been-there” of the light impression of the image, what Bazin calls “an image that is a reality of nature, namely, an hallucination that is also a fact.”<sup>41</sup>

Reference to Figures 4–7 support the contention that the temporal dimensions of the ritual conception of photography are complex. The fact that the photographic image re-enters ‘real time’ at the end of the rites of passage (a symbolic atemporal ‘channel’ bridging the ‘real time’ base of the ritual of photography) in no way detracts from a different reading of the temporal quality of the photograph as ritual product. Instead of a reality predicated upon the paradox of the “here-now” and the “there-then,” the temporal reality of the photograph is equated with ‘an eternal present,’ which is to say that order is imposed on the natural flux and it is given a permanent form—the photograph. As was pointed out earlier, the present becomes past, the future becomes present. The alienation of the present is the result of the fusion of the production strategy and the viewing strategy by means of the photograph, which represents the present of a ‘now past’ production strategy (the image’s temporal anteriority) with the present of a ‘now present’ future viewing strategy; hence the eternal present (the future is perpetually present by reference to a past act). In fact, this reading of the photograph’s strategic temporal dimension is not incompatible with the “here-now”/“there-then” authenticity reading; the one concerns the structure of the process, the other the photographic image. In terms of the

photographic image, as opposed to his acceptance of photography as ‘an impassive mechanical process,’ Bazin is essentially correct when he states:

Hence the charm of family albums. Those grey or sepia shadows, phantomlike and almost undecipherable, are no longer traditional family portraits but rather the disturbing presence of lives halted at a set moment in their duration, freed from their destiny... for photography does not create eternity, as art does, it embalms time, rescuing it simply from its proper corruption.<sup>42</sup>

The concentric temporal structure of the photograph (time embalmed, but by an eternal present), the “this is how it was” authenticated by the “having-been-there” of the light-sensitized photochemical agent, is crystallized by the viewing strategy—the “pure spectatorial consciousness” that Barthes describes<sup>43</sup> closes the circle of intent—fulfilling the photographer’s production strategy. The isolation of the temporal structure of the photographic process, and therefore the complexity of the temporal dimensions of the photograph, can be supported by an interesting experiment: the elimination of the normal image of the photograph.

The permutation equation allows for the transformation  $\text{Light} \equiv \text{Presence to Absence} \equiv \text{Light}$  in terms of a subject/content (other than pure light as content): that is, a ‘conventional’ photographic image. The presence of the conventional subject is revealed by light, the agent of visual knowledge, and is transformed within a ritual production structure, according to a permutation equation, into the chemical presence of the absence of the conventional subject, again within a context of real light—the conventional subject/content is perceived, in Barthes’s words, in the “here-now.” Conversely, the absence of the conventional subject in the here-now is revealed (a) by the light of the here-now, and (b) by its ‘chemical light’—the chemical impression left by the light reflected off of the conventional subject in the “there-then.” If all reflected light is eliminated at the photographic site (the production strategy otherwise remaining the same), then we are dealing not with reflected light, and therefore a conventional subject/content (a representational photographic image), but with radiated light. The permutation equation then processes itself symbolically, so to speak; literally:  $\text{Light} \equiv \text{Presence} \rightarrow \text{Presence} \equiv \text{Darkness} \rightarrow \text{Darkness} \equiv \text{Absence} \rightarrow \text{Absence} \equiv \text{Light}$ . It is literally contentless in the conventional sense and becomes highly charged symbolically—for it reveals itself as a tautology. (The elements within the units of the permutation equation all become isomorphic.) One can conceive of the reflected conventional content of a photograph as a form of communication noise interfering with the possibility of a ground state of radiated

light. In fact, from a temporal viewpoint, the reflected light in some sense always tends toward the state of radiated light—there exists not only an entropy of images (a physical fading of images) but also a hierarchy of photographic categories. Note, in the first instance, the following statement by Hubert Damish:

Photography aspires to art each time, in practice, it calls into question its essence and its historical roles, each time it uncovers the contingent character of these things, soliciting in us the producer rather than the consumer of images. (It is no accident that the most *beautiful* photograph so far achieved is possibly the first image Nicéphore Niépce fixed in 1822, on the glass of the camera obscura—a fragile, threatened image, so close in its organization, its granular texture, and its emergent aspect, to certain Seurats—an incomparable image which makes one dream of a photographic *substance* distinct from subject matter, and of an art in which light creates its own metaphor.)<sup>44</sup>

In the beginning, there was a photographic *tabula rasa*—the ‘brute photograph.’<sup>45</sup> The brute photograph is ‘the mirror of light,’ a pulsating catoptric surface—as culture to nature, it stands, in some sense, in a relation to light as the onomatopoeic word does to its sound. It is a print exposed directly to radiated light. Unprocessed, it remains unstable—a surface pulsating, in flux, striving toward an inert cultural state of chemical inactivity. In this latter sense it is ‘raw,’ a minimum cultural entity standing on the border between culture and nature.

The area between the ‘pure’ brute photograph and the ‘conventional image’ photograph is occupied by three other types of photographs. The stable brute photograph, processed and fixed—nature fixed into a culturally stable state of chemical inactivity—is an inert chemical light mirror. The second type is an ideologically complex brute photograph. The light, culturally mediated by the lens and camera, is processed and fixed but it carries no conventional image. Symbolically it is a culturally imploded system—light, optically processed into a vortex, is frozen in the act of whirling away toward a state of pure light substance. By strategic choice, subverted from its sociocultural use of producing conventional images, it is the total ritual photographic machine usurped and used to produce culturally inert chemical light mirrors. Between this third type of brute photograph and the conventional image photograph is the cultural area occupied by the photogram. This processed and fixed photograph is the result of a procedure involving the placing of the objects between the light source and the photosensitive material in the absence of a lens or camera. It is a shadow picture, a silhouette of the object. A demi-image, symbolically it occupies the boundary area between night and day, darkness

and light. Neither chemical light mirror nor conventional image, it is forever trapped between the world of light and the world of images. Finally, at the pinnacle of the hierarchy of the categories of photograph, stands the ‘conventional image’ photograph of an external ‘objective’ reality. It is highly culturalized and, as with all photographic categories, is characterized by a catoptric surface; it is the mirror image of a ‘mirror’ (the subject reflecting light), it can take the form of a text “*en abyme*,”<sup>46</sup> and metaphorically it can become a hall of mirrors.

These types of photographs can be differentiated from one another by a presence or absence of technical units or procedures coupled with their use of reflected, refracted or radiated light within the photographic process. At the risk of being pedantic, a chart can be drawn up so one can get some sense of the syntactic structural differences. I will differentiate the types into categories according to the following titles:


|                                      |   |
|--------------------------------------|---|
| <b>Brute</b>                         | <b>Photochemical Luminography</b>                     |
| <b>Stable ‘Brute’</b>                | <b>Photochemical Luminography</b>                     |
| <b>Photogram</b>                     | <b>Photochemical Luminography</b>                     |
| <b>Ideologically Complex ‘Brute’</b> | <b>Dioptrio-mechanical Photochemical Luminography</b> |
| <b>Conventional Image Photograph</b> | <b>Dioptrio-mechanical Photochemical Luminography</b> |

There exist, then, two categories of photograph: Photochemical Luminographs and Dioptrio-mechanical Photochemical Luminographs. In terms of their use of light they can be classified as follows:

|   |  |
|---|--|
| <b>Photochemical Luminographs</b>                         | (a) Light radiated<br>(b) Light reflected (no ‘conventional image’)<br>(c) Light refracted |
| <b>Photochemical Luminographs<br/>(Photogram)</b>         | (a) Light radiated (‘conventional image’)<br>(b) Light refracted                           |
| <b>Dioptrio-mechanical<br/>Photochemical Luminographs</b> | (a) Light radiated<br>(b) Light reflected (no ‘conventional image’)<br>(c) Light refracted |
| <b>Dioptrio-mechanical<br/>Photochemical Luminographs</b> | (a) Light radiated<br>(b) Light reflected (‘conventional image’)<br>(c) Light refracted    |

|   | CAMERA |                | RITES OF PASSAGE   |                |                     | PERMUTATION EQUATION |                    |                   |                | LIGHT    |           |           |       |
|---|--------|----------------|--------------------|----------------|---------------------|----------------------|--------------------|-------------------|----------------|----------|-----------|-----------|-------|
|   | Lens   | Camera Obscura | Rite of Separation | Rite of Margin | Rite of Aggregation | Light= Presence      | Presence= Darkness | Darkness= Absence | Absence= Light | Radiated | Reflected | Refracted | Image |
| Photochemical Luminography (Pure 'Brute')   |        |                |                    |                |                     |                      |                    |                   |                | X        |           |           |       |
| Photochemical Luminography (Stable 'Brute')                                       |        |                | X                  | X              | X                   | X                    | X                  | X                 | X              | X        | X         | X         |       |
| Photochemical Luminography (Photogram)  |        |                | X                  |                | X                   | X                    | X                  |                   | X              | X        |           | X         | X     |
| Dioptrio - mechanical Photochemical Luminography Ideologically Complex 'Brute'    | X      | X              | X                  | X              | X                   | X                    | X                  | X                 | X              | X        | X         | X         |       |
| Dioptrio - mechanical Photochemical Luminography Conventional 'Image' Photographs | X      | X              | X                  | X              | X                   | X                    | X                  | X                 | X              | X        | X         | X         | X     |

NATURE



CULTURE

Figure 8

A tentative and 'ideal' chart can be drawn up to include the rites of passage and permutation equation in terms of the above photographic categories (see Figure 8). The chart points toward the possibility of a finite but large number of different photographic types.

The isolation of (at least) two major categories of photographs, both containing types that process pure light as opposed to light bearing conventional image information, provides evidence in support of the hypothesis advanced earlier in this chapter postulating the view of the photographic process as a transcultural activity. Additional supportive evidence is provided by an examination of the relationship between the rites of passage, the permutation equation and the photograph as carrier medium. An examination of the complex temporal structure of the photographic process, involving a channelling of the "here-now"/"there-then"

authenticity reading within ‘an eternal present’ of the photograph’s symbolic structure, also supports a separation of the structure of the photographic process from its content.

The question of the exact structural relationship between the image (generally) and the photographic process has not been approached. Besides being chemically fixed and therefore physically bound to the photograph, conventional light images (modulated forms of pure light) have historically been the *raison d’être* of the photographic process as a sociocultural activity. Whatever the transcultural nature of the photographic process and the unmodulated light photographs, the conventional photographic image has been culture-bound. Does modulated light with its dense information content, its high ‘noise’ level, exhibit a different relationship to its carrier medium or can all forms of photographs be considered as homogeneous with the carrier medium?

### The Syntactic Model and the Photographic Image/Subject

*“Let’s pretend the glass has got all soft like gauze, so that we can get through. Why, it’s turning into a sort of mist now, I declare! It’ll be easy enough to get through—”  
She was up on the chimney-piece while she said this, though she hardly knew how she had got there. And certainly the glass was beginning to melt away, just like a bright silvery mist.*

*In another moment Alice was through the glass, and had jumped lightly down into the Looking-glass room.*

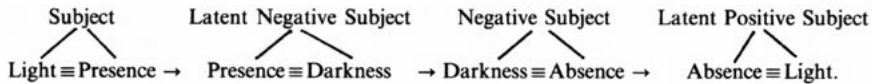
Lewis Carroll <sup>47</sup>

The early photographs, those made by Niépce and the daguerreotypes, were produced on quasi-mirrors (polished metal or silvered copper plates), the calotypes by Fox Talbot and Hippolyte Bayard’s direct-positive photographs were produced on paper. Talbot’s process included a negative stage (which provided reproducibility), and involved paper, economically cheaper than metal; it was this method that formed the basis of the modern photographic paradigm.

All photographs are a kind of mirror; not absolutely reflective, as are conventional mirrors, they nevertheless absorb and reflect light to reveal the light and dark modulations on their surfaces.

They echo the symbolism of the mirror, for as Edmund Carpenter states, “The notion that man possesses, in addition to his physical self, a symbolic self is widespread, perhaps universal. A mirror corroborates this. It does more: it reveals that symbolic self *outside* the physical self. The symbolic self is suddenly explicit, public, vulnerable. Man’s initial response to this is probably always traumatic.”<sup>48</sup> This symbolism was formerly attributed to painting: “For this reason, I say among my friends that Narcissus... was the inventor of painting... What else can you call painting but a similar embracing with art of what is presented on the surface of the water in the fountain?”<sup>49</sup> It seems apt that Leon Battista Alberti, the first systematic expositor of the technique of one point perspective—a technique centred on the solitary viewer (the perspective of the camera lens also centres on the single viewer)—should have sought the origins of art in the myth of Narcissus, in a reflection of light. By separating a light image (an appearance) from a physical presence (a reality), and presenting this light image as its subject, the photograph, like the mirror, effectively masks its own reality.

The conventional image is carried by modulated light chemically fixed on the photographic surface. It is therefore in a direct relation with the syntactic units of the permutation equation. As with other representational systems (drawing, painting) this denoted message is coded, in this case as the result of a technological transformation of the permutation elements (see the previous chapter)—each pair of elements forming a concrete sign within the rites of passage:



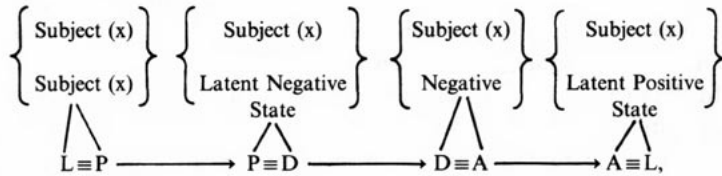
The symmetry between the syntactic structure (the ‘expressive’ plane of the transformational equation) and the syntactic structure of the rites of passage indicates that the concrete signs are the content of the rites of passage, whereas the content (the particular message) of the transformational equation is the subject—the image is fixed from the real world (Figure 9).

The function of the transformational equation is to articulate the subject; the rites of passage function to articulate the conditions that the subject is in (latency, negativeness, etc.). Both the subject and its condition are isomorphous at each stage. Returning to the earlier isomorphic diagrams, in transformational sequence, we discover a neutral category, an empty slot for the subject:



Light  $\equiv$  (x)  $\equiv$  Presence  $\rightarrow$  Presence  $\equiv$  (x)  $\equiv$  Darkness  $\rightarrow$   
 Darkness  $\equiv$  (x)  $\equiv$  Absence  $\rightarrow$  Absence  $\equiv$  (x)  $\equiv$  Light.

A hypothesis can be formulated that photography is therefore a system in which the signified and the signifier are fixed within each syntactic unit at each stage in the transformation, but the signification is always a-transformational—subject ‘x’ is common to all the syntactic units and in fact permeates the sign of each unit with a common ‘form’ (this is especially evident with conventional images). One can argue that such ‘porous’ signs do therefore exist:



where L = Light, P = Presence, D = Darkness, and A = Absence

These signs could form the distinguishing characteristic of representational systems, each differentiated by different signifier/signified contents and coding mechanisms.

|                     |                         |                            |                           |                           |                |
|---------------------|-------------------------|----------------------------|---------------------------|---------------------------|----------------|
| Plane of Expression |                         | RITE OF SEPARATION         | RITE OF MARGIN            | RITE OF AGGREGATION       |                |
| Plane of Content    | Subject — Subject       | Latent Negative — Subject  | Negative — Subject        | Latent Positive — Subject | Positive Print |
| Plane of Expression | LIGHT $\equiv$ PRESENCE | PRESENCE $\equiv$ DARKNESS | DARKNESS $\equiv$ ABSENCE | ABSENCE $\equiv$ LIGHT    |                |

Figure 9

The conventional subject, the second-order message within the plane of content, is, to use Bazin's words, the "molding, the taking of an impression, by the manipulation of light."<sup>50</sup> However the subject's relation to reality is complex. In terms of the production strategy, the subject is in a mimetic relation to the contents of the camera's viewfinder. The photograph never relates to the world, but only to the world as defined by the camera's viewfinder—it is a finite world. In terms of tactics, the subject is in an iconic relation to the subject in the world, a coding of the subject taking place before its impression activates the silver salts of the photosensitive material; this coding is achieved by the lens which ideally reconstructs a one-point perspective system (see Figure 10).

It is at this point that we are faced with the complexity of the relationship between the strategy of the production process (activated with the choice of subject in the viewfinder) and its tactic—a complexity made apparent in the relationship between the rites of passage and the permutation equation. Clearly, in the tactical aspect, the technical solution to the overall temporal strategy represented in the shift from production to viewing is based on a double coding of the subject: the first, achieved by the lens/shutter system, is an optical mechanical encoding; the second, the chemical transformation of the subject (on the surface of the photosensitive material), is achieved by the permutation equation. In reality, the optical and chemical are interwoven throughout the development process (see Figure 11 and the previous chapter).

The photographic process is a system. Therefore modifications to the permutation equation or the rites of passage do violence to the unity of the process, and can lead to new types of photography (see the previous chapter's discussion of the Polaroid SX-70). The achievement of a conventional positive print, for example, is predicated on a symbiosis between the optical and chemical within the system. This system uses a camera and the process of subject development to form a machine that reproduces conventional reality while clarifying the relationship between means and ends. The optical and chemical means (the tactic), is symbolically atemporal—a condition made possible by the function of the rites of passage, which is to provide a ritual passage from an initial state to a subsequent state, a symbolic bridge that permits a transformation from one social category to another in a ritually insulated atemporal environmental condition. The ends (the strategy)—the present becoming past, the future becoming present—with its consequent permanent order (the photograph), produces the appearance of a psychological state of realism, evocatively described by Bazin:

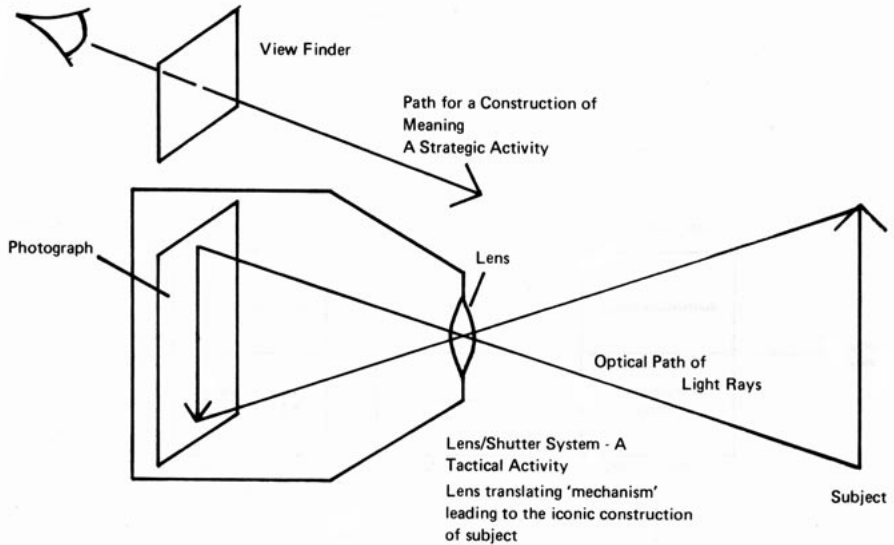


Figure 10

This production by automatic means has radically affected our psychology of the image. The objective nature of photography confers on it a quality of credibility absent from all other picture-making. In spite of any objections our critical spirit may offer, we are forced to accept as real the existence of the object reproduced, actually *re-presented*, set before us, that is to say, in time and space. Photography enjoys a certain advantage in virtue of this transference of reality from the thing to its reproduction.<sup>51</sup>

However, as was pointed out earlier, the transference of reality (the subject) is mediated by coding devices (in particular the viewfinder symbolizing the production strategy), and the lens and the light sensitive chemical surface (both symbolizing a tactical activity), the latter of which freezes the image (subject), symbolizing the viewing strategy. Both the lens and the light sensitive chemical surface, while they appear tactically neutral when associated with the technical, are, in fact, good examples of condensations of a historical reality with particular temporal consequences. These elements are transparent, the one to light rays, the other to modulated light (thereby creating an illusion). Both these devices mutate the subject (whatever its semiological structure) into a particular historical object: the photograph, the

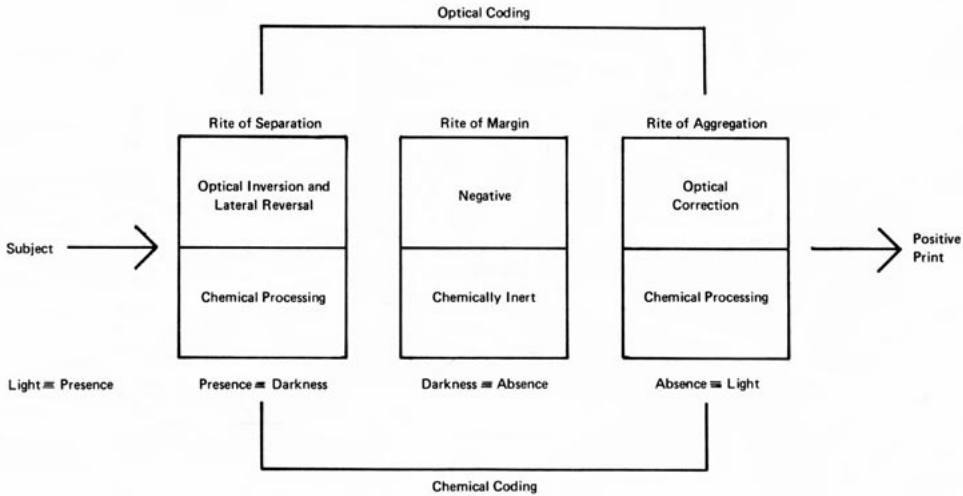


Figure 11

‘pictorial logic’ of which can be traced to the Renaissance system of one-point perspective and its systematization of “the old Protagorean idea of relativism, for,” as Joan Gadol has noted, “it was perspective that taught the painter to forego the attempt to represent perceptual objects per se.” Instead, “It turned his attention to subjective evaluations, to comparisons made by a human viewer from a particular standpoint.”

Essentially, perspective was a science of visual relations; but since it was a “science,” its relativism constitutes only half the picture that it gave rise to. Perspective did banish the last vestiges of an absolute sensible reality from the picture. In this sense, it took painting beyond Flemish art to a more profound awareness of the role of the subject in forming the world of appearances. But perspective also construed the world geometrically, and because it did so, the subject’s comparisons—among sizes, distances, colour tones, and degrees of luminosity—led to determinations of a measurable, and hence objectively real kind.<sup>52</sup>

Relativism, the importance of the subject, and a comparative ‘objectivity’ are characteristics defining photography. Jean-Louis Baudry’s discussion of the ideological mechanisms defining the relation between the ‘subject’ and the camera raises difficult questions concerning ideology

and objectivity.<sup>53</sup> In Baudry's view the construction of a centred space, a visual pyramid, amounts to a subversion of the 'subject':

The center of this space coincides with the eye which Jean Pellerin Viator will so justly call the "subject." ("The principal point in perspective should be placed at eye level: this point is called fixed or subject.") Monocular vision, which as Pleynet points out, is what the camera has, calls forth a sort of play of "reflection." Based on the principle of a fixed point by reference to which the visualized objects are organized, it specifies in return the position of the "subject," the very spot it must necessarily occupy.

In focusing it, the optical construct appears to be truly the projection-reflection of a "virtual image" whose hallucinatory reality it creates. It lays out the space of an ideal vision and in this way assures the necessity of a transcendence—metaphorically (by the unknown to which it appeals—here we must recall the structural place occupied by the vanishing point) and metonymically (by the displacement that it seems to carry out: a subject is both "in place of" and "a part for the whole"). Contrary to Chinese and Japanese painting, Western easel painting, presenting as it does a motionless and continuous whole, elaborates a total vision which corresponds to the idealist conception of the fullness and homogeneity of 'being,' and is, so to speak, representative of this conception. In this sense it contributes in a singularly emphatic way to the ideological function of art, which is to provide the tangible representation of metaphysics.<sup>54</sup>

This understanding of the objective construction of optically mediated subjects is in marked contrast to Bazin's view of the "transference of reality from the thing to its reproduction." As Baudry suggests, this transference would be better described as a 'mutation in Western conceptions of space and subjectivity.' Clifford Geertz believes the construction of ideologies, "schematic images of social order," which function as "templates for the organization of social and psychological processes," are the result of social, cultural or psychological strain. As Geertz points out, they are "most distinctively, maps of problematic social reality and matrices for the creation of collective conscience."<sup>55</sup> The subversion of the 'subject,' in Baudry's analysis, is predicated on the concealment of the instrumentation, "the subject himself being unable—and for a reason—to account for his own situation, it was necessary to substitute secondary organs, grafted on to replace his own defective ones, instruments or ideological formations capable of filling his function as subject."<sup>56</sup> The reality of the photographic

image, its objectivity, in effect conceals the photographic process. This objectivity, the result of the lens and the photochemical surface, is transparent not only in terms of bridging the gap between the mental and the visual, but also in terms of providing a configuration upon which a political condensation of order and permanence would be possible. The concern with the structure of appearances would be based on a fixation with both the temporal and non-temporal (permanence)—a mythic function of painting. As Alberti pointed out in *On Painting* (1436), “Painting contains a divine force which not only makes absent men present, . . . but moreover makes the dead seem almost alive. . . . Thus the face of a man who is already dead certainly lives a long life through painting.”<sup>57</sup> The photograph would inherit this function and, liberated from its complicated craft apprenticeship, in the form of the silhouette and the physionotrace, it would be, as Gisèle Freund states, “coveted by the bourgeoisie for the expression of its new cult of individualism.”<sup>58</sup> The complexity of the psychological interaction of the self with the camera can be grasped by way of Baudry’s analysis of the cinematographic apparatus. For example:

The “reality” mimed by the cinema is thus first of all that of a “self.” But, because the reflected image is not that of the body itself but that of a world already given as meaning, one can distinguish two levels of identification. The first, attached to the image itself, derives from the character portrayed as a center of secondary identifications, carrying an identity which constantly must be seized and reestablished. The second level permits the appearance of the first and places it “in action”—this is the transcendental subject whose place is taken by the camera which constitutes and rules the objects in this “world.” Thus the spectator identifies less with what is represented, the spectacle itself, than with what stages the spectacle, makes it seen, obliging him to see what it sees; this is exactly the function taken over by the camera as a sort of relay.<sup>59</sup>

In photography, the psychological identification of the ‘self’ with a camera that is temporally and/or spatially concealed is the result of a strategic movement collapsing the production strategy and the viewing strategy within an eternal photographic present (the bridge of permanence) in which the present becomes past, and the future becomes present. The alienation of a “spectatorial consciousness” (its present based on the desire of the viewing strategy) is the result of a particular ideological structure—sequential templates consisting of the lens and the photochemical photographic surface.

A highly significant metaphor by Karl Marx and Friedrich Engels involving the inverted image in a camera obscura points to an interesting insight concerning the structure of ideology:

Men are the producers of their conceptions, ideas, etc.—real, active men, as they are conditioned by a definite development of their productive forces and of the intercourse corresponding to these, up to its furthest forms. Consciousness can never be anything else than conscious existence, and the existence of men is their actual life-process. If in all ideology men and their circumstances appear upside down as in a *camera obscura*, this phenomenon arises just as much from their historical life-process as the inversion of objects on the retina does from their physical life-process.<sup>60</sup>

The conventional mode of examining ideology is external. It is from a critical and external position that the objects for analysis are approached—thus the inverted image can be compared to the subject and, for instance, ‘false consciousness’ can be revealed (see Figure 12). The Marx/Engels notion of ideology was based on an equation involving a condition of alienation producing a state of false consciousness, and the product of this false consciousness, the system of beliefs associated with it, constituting the ideological system of the individual, group, or community. This equation, however, concerns the structure of the inverted image portion of the camera system in the metaphor, and to recognize it the total system must be encompassed. Ideology is, therefore, the study of one set of conditions in terms of another—the assumption being that one is ‘real’ and the other, to extend the photographic analogy, virtual. However, an examination of Figure 12 reveals a third element in this system: the lens or pinhole by means of which the image is inverted. The identification of this ‘translating mechanism’ is of interest.

Karl Mannheim’s book, *Ideology and Utopia*, made a significant contribution to ideological analysis when it was first published in 1936. His work can still prove extremely stimulating. An initial conception of ideology as “the more or less conscious deceptions and disguises of human interest groups, particularly those of political parties,” was refined by Mannheim into two distinct subjects. The first is the particular conception of ideology, the field of ideology proper, which functions at the level of specific assertions and includes “all those utterances the ‘falsity’ of which is due to an intentional or unintentional, conscious, semi-conscious, or unconscious, deluding of one’s self or of others, taking place on a psychological level and structurally resembling lies.” The second, the sociology of knowledge, is not concerned with the assertions of a speaker, but with his “perspective,” represented by his “*total mental structure*,”

that is, “the subject’s whole mode of conceiving things as determined by his historical and social setting.” The only value of a conception of ideology based on falsification for the sociology of knowledge would be, in Mannheim’s view, to raise the question of the interaction of the two fields: “... when and where social structures come to express themselves in the structure of assertions, and in what sense the former concretely determine the latter.”<sup>61</sup> Mannheim, in fact, refined his concept of ideology and created a symmetrical term to complement it. Without going into the development of thought that culminated in this binary set, one can present Mannheim’s definitions of them.

Mannheim proposed an evaluative general and total conception of ideology that redefines “false consciousness,” as related to an ethical attitude, which results, in his words, from a failure “to take account of the new realities applying to a situation, and when it attempts to conceal them by thinking of them in categories which are inappropriate.” Not only is it evaluative because it “presupposes certain judgments concerning the reality of ideas and structures of consciousness,” but it is also “dynamic because these judgments are always measured by a reality which is in constant flux.”<sup>62</sup> This evaluative, general and total conception of ideology is oriented toward the past; it conceals the present by comprehending it in categories based on previous historical situations.

The symmetrical term ‘utopia’ was advanced by Mannheim to balance the asymmetrical temporal structure of reality—his conception of ideology—with its emphasis on the past. In contrast to ‘false consciousness,’ utopia characterizes an attitude that transcends or conceals the present when it passes “over into conduct” that tends “to shatter, either partially or wholly, the order of things prevailing at the time.”<sup>63</sup> Broadly speaking, ‘ideology’ and ‘utopia’ are active elements at the particularistic level, while the sociology of knowledge characterizes the general level.

Returning to our little photographic diagram, it is now possible to postulate a set of relationships with, perhaps, some interesting consequences. Figure 12 can be reformulated in the manner shown in Figure 13. The question now arises as to what causes these inversions. The hypothesis, following Mannheim’s conception of a sociology of knowledge, is that it is in fact the subject’s “perspective” or “total mental structure” that acts as a lens to invert reality in such a way as to create a virtual image, those categories that function as a false consciousness when compared to ‘reality’ defined as in flux. Thus a valuable dimension of ideology, if one starts from the isolation of false consciousness, is that it provides a means of determining



“when and where social structures come to express themselves in the structure of assertions, and in what sense the former concretely determine the latter.”

The translating mechanisms (the camera lens and the light sensitive photochemical surface), are those particular configurations of social knowledge that act to mutate the subject at the production site. These templates are the first terms in the transformational sequence, the permutation equation, and the rites of passage. They encode the subject, while other syntactic units transform the encoded message, the last unit defining the socially desired state of symbolic spacelessness and timelessness. This chemical light mirror reflects a message consisting of ‘social noise.’ It is within the context of the production and viewing strategies that the ideological function of these templates becomes apparent.

The optical template (the camera lens) functions tactically to produce a sharp, bright and dimensionally reduced image. In producing this image, it inverts and laterally reverses the subject. This latter action has symbolic significance (see the previous chapter p. 109–115). Tactically it also (re)produces a seemingly ‘objective’ spatial conception: that of Renaissance geometric perspective. This social structure—the lens—then embodies a particular

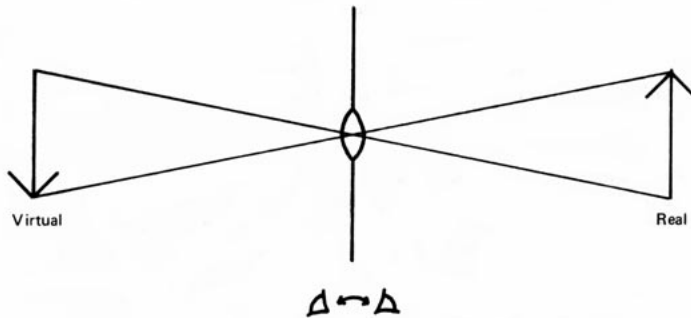


Figure 12

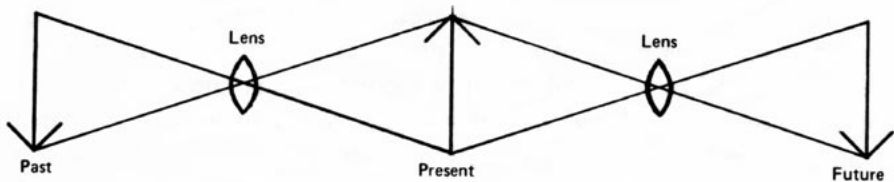


Figure 13

rationalization of sight, a geometric conception of a centred rational- and spectator-orientated space—in Mannheim’s words, a “whole mode of conceiving things as determined by [a] historical and social setting.”

Both the photographic lens and the photograph act as windows through which the spectator views the subject. When it is fully processed (the tactic), the photograph’s ideal characteristics are:

- (a) a correct subject orientation (the inversion and lateral reversal being corrected ‘ideally’ by the enlarger lens);
- (b) an apparent spatial and temporal linearity (the window produces a physio-psychological sensation of a presence of the subject—there is an appearance of a spatial linearity and temporal anteriority (Barthes’s “here-now”/“there-then”—producing the apparent photographic paradox).

In fact, structurally, the positive photograph, as with the photographic lens, represents a condensation, a “whole mode of conceiving things” as determined by the historical and social setting surrounding the invention of photography—a tradition of Western painting and science, the nineteenth century industrial revolution, the bourgeoisie, Niépce, etc. ‘Internally,’ the subject is determined by:

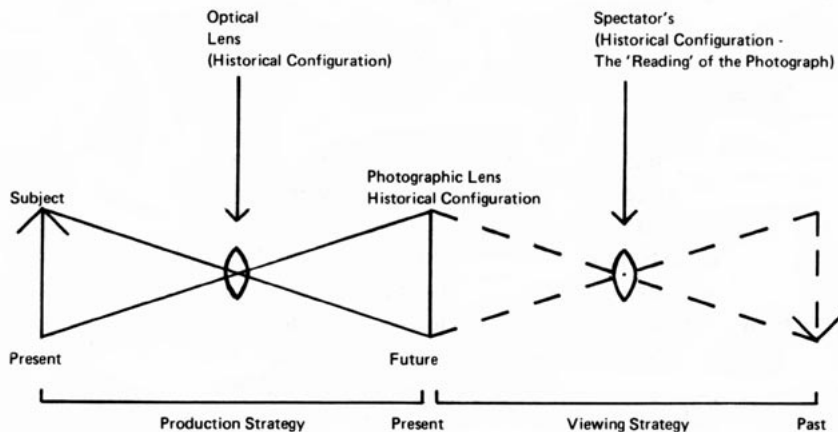


Figure 14

- (a) the producer's historical and social setting;
- (b) the spectator's historical and social setting.

'Externally,' the photographic window forms 'a bridge of permanence' from the present of the production strategy to the present of the viewing strategy. The present becomes past ("there-then") and the future becomes present ("here-now"); the photograph is always present—'an eternal present' distorting the viewing present by the production strategy's orientation toward a future and the viewing strategy's orientation toward a past (see Figure 14).

Both these strategies in the alienation of the present result from the tactical means provided by the templates as condensations of historically defined social knowledge. The illusion of the positive photograph, the "here-now"/"there-then" paradox (its false consciousness) is the result of a concealment of the spectatorial present in terms of a viewing strategy favouring an (ideological) past and the concealment of a (utopian) future by the production strategy in terms of its now past present. This concealment is achieved by the photographic template creating an illusion of the (re)production of the production strategy by the framing of the light modulated area on the photograph (defined as the area of the illusion and its border). The contents of this area (the black and white, or coloured illusion) appear to be in mimetic relation to the subject at the production site—hence the photographic frame appears to reproduce the viewfinder's contents, a finite world. This apparently 'real' historical condition of a 'production site present' masks the true tactical and historically mediated iconic relation of the photographic illusion, with the subject at a past production site strategically oriented towards a utopian future. The former condition represents an ideologically conditioned viewing strategy, the appearance of a "pure spectatorial consciousness," in fact, under the hegemony of an already chosen subject, and therefore a false consciousness. The latter condition, a production strategy, is a choice and consequent filling in of the 'visual disjunction between momentary states'—an action oriented toward a utopian future. In both cases the present is sacrificed and alienated in terms of virtual states of existence—order and permanence, future and past. This delusion is the result of a false correspondence between the eye of the producer and the eye of the spectator, appearing to coincide at the same point in space and time in relation to the contents of the viewfinder/photograph—the bridge of a now eternal present. In fact, between the two we find the sociocultural complexity of the utopian gesture (with its act of transcending and concealing its present by a production strategy which tends "to shatter, either partially or wholly, the order of things prevailing at the time"—the general flux) and the ideological counter gesture (which is oriented toward the past; it conceals the

present by comprehending it in categories based on previous historical situations). Both these gestures are made possible by the encoding templates: such is the complexity of the photographic mechanism for meaning.

## Conclusion

Whether in China or America, can the transcultural nature of the photographic process be conceived to be independent of particular social configurations? The structural model advanced in this chapter is based on an ‘internalist/externalist’ analytic distinction and is centred on the action of a strategic movement between a ‘production present’ oriented toward a utopian future and a ‘viewing present’ ideologically oriented toward a past. The production strategy and the viewing strategy articulate a photographic process best described as a ritual process designed to resolve a fundamental cognitive contradiction, that of the gap between the mental construction of permanence and the visual disjunction between momentary states. In form, this process also represents the symbolic condensation of a philosophy of political action through its articulation of order and permanence. The photograph (a bridge of permanence), is, in fact, a structurally complex spatio-temporal entity. It is an eternal ‘present,’ paradoxically involving the alienation of the present, the result of a fusion of a production strategy and a viewing strategy that in reality represents the present of a now past production strategy, with the present of the now present future of the viewing strategy. The eternal ‘present’ is the result of a future perpetually present by reference to a past act. This temporal structure encloses the psychological temporal dimension of the “here-now”/“there-then” authenticity reading.

The relation of the photographic subject and the various syntactic units of the photographic process as a whole can be defined according to photographs falling into at least two categories: Photochemical Luminographs and Dioptrio-mechanical Photochemical Luminographs (both categories containing subjectless photographs). These subjectless photographs were used to postulate the existence of a neutral category or empty slot, enabling the sign of each syntactic unit in the transformational sequence to be considered as being ‘porous’ in terms of a subject.

Finally, the temporal structure of the photographic subject was examined from an ideological point of view, and the historical roots of the photographic process were exposed. In particular, the historical nature and ideological function of the optical and photographic templates—the

encoding devices—were placed in relation to the spatio-temporal structure of the photographic process and the spatio-temporal structure of the photograph.

The complex cultural nature of the photographic process is only rivalled by its complex mechanism for meaning. As a particular sociocultural entity, the question of its relation, as a Western cultural/historical configuration that is alien to other types of sociocultural complexes, remains to be answered. In China its social use might be clearly defined. However, as the cultural condensation of a narrow and historically defined area of social knowledge, its impact on any other type of culturally and historically defined social knowledge has yet to be determined. It is not simply a question of how people view entities, but how they construct them.

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## 2.3 TOWARD AN ANTHROPOLOGY OF SIGHT: RITUAL PERFORMANCE AND THE PHOTOGRAPHIC PROCESS

This chapter will explore a number of questions concerning a cultural model for photography. It will present a model for a photographic ritual based on a correspondence between the process of producing photographs and a sociocultural process known as the ‘rites of passage.’ In this context, it will specifically address the means by which a ritual of photography would serve to mediate the individual and collective domains of cultural experience—in particular, ‘for whom’ and ‘in what terms’ this type of process may be understood to operate.

The chapter will begin with a general discussion of reflexivity, performance and ritual. It will then briefly outline Emile Durkheim’s notion of ‘collective representation.’ This will be followed by an outline of the structural and ‘processual’ functions of the rites of passage. After this overview of the general theoretical context, a synopsis will be given of photography’s position within a progressive rationalization of sight; this will be followed by a sketch of the formal relationship between the photographic camera and the human eye. A ritual model of the ‘photographic process,’ and a more specific discussion of the classification system in terms of which it operates, will then be given. This will serve as a context for a discussion of the relationship between it, the camera, the human eye and the role of the photographer. The chapter will conclude with a brief discussion of the relationship between this type of ritual, an education of the eye and an anthropology of sight.

### **Reflexivity, Performance and Ritual**

Within the field of anthropology, one would expect the notion of ‘reflection’ to be defined, for the most part, in terms of collective phenomena. Hence, for example, Victor Turner notes that “an anthropologist tends to think in terms not of solitary but of plural reflection, or, much better, plural reflexivity, the ways in which a group or community seeks to portray, understand, and then act on itself.” He goes on to point out that “Essentially, public reflexivity takes the form of a *performance*.” In his opinion, this type of public activity would be characterized by a diversity of “languages” through which a group would be able to communicate to itself about itself in terms of a plurality of codes including, for instance, the use of voice, music,

dance, and the construction of a variety of two- and three-dimensional objects such as paintings and sculptures. In his words, “They are dramatic, that is literally ‘*doing*’ codes.”<sup>1</sup> Barbara Babcock has also emphasized that “all forms of cultural performance do more than reflect sociocultural patterns and beliefs; they reflexively comment upon those patterns and alter a society’s awareness of itself.”<sup>2</sup> Reflexive behaviour need not necessarily be limited to collective activity; it might also be a distinguishing characteristic of private forms of social conduct. It might therefore involve the singular and individual, as well as the plural and collective. It has been argued, for example, that its characteristics might include an internal reflection of a given form or the external framing of a marked context. It might also be implicit or explicit in form; that is, it might function in an unconscious or conscious manner from the individual or collective points of view. Finally, reflexivity might also find partial or total expression by occupying a sequence or segment of a given performance; and in contrast, it might occupy its totality.<sup>3</sup> When confronted with the pluralism of its signifying practices, across the individual and collective spheres of sociocultural activity, reflexivity can, perhaps, be more profitably understood as an index to a particular mode of thinking. As Babcock has succinctly phrased it: “All self-referential operations involve the epistemological paradox in which the mind or the culture, by its own operation, attempts to say something about its operation.”<sup>4</sup> What, then, could be the distinguishing characteristics of collective as opposed to individual behaviour?

In the context of a discussion of the similarities and differences which can be perceived between a traditional ritual performance (i.e., the use of mirrors among the Fang of Western Equatorial Africa) and modern private journals (described in a special issue of *Semiotica* published in 1980), Roy Rappaport has suggested that the former could be characterized in “prospective” and “active” terms as opposed to the latter’s “descriptive,” “retrospective” and “passive” designations.<sup>5</sup> He has also suggested that collective rituals effect a transformation as an external agent, while in the case of a journal the agent would presumably be an individual. Furthermore, he has pointed out that public orders are elaborated in the case of a collective ritual process as opposed to the predominantly private orders of a journal. Finally, in the case of collective rituals, one could conclude with the words of Babcock and note that society also “takes cognizance of itself” and communicates its major classifications and categories both through ordering them and through disordering them—by overdetermining *and* by rendering indeterminate customary processes of signification.”<sup>6</sup> The issue of communication, however, raises the question of the forms these processes take and the types of relationships forged



between an individual and the collective. An example of an approach to a problem of this nature may be found in Durkheim's discussion of individual and collective 'representations.'

### **Durkheim's Notion of 'Collective Representations'**

In Durkheim's view, individual and collective 'lives' can be defined from the point of view of "representations." But in contrast to mental representations, collective representations express "the way in which the group thinks of itself in its relationships with the objects which affect it."<sup>7</sup> Durkheim argued that the sum of the individual parts of a social group could exhibit characteristics that were independent of the individual members who composed it. Therefore, although there could be no collective representations without a social grouping formed of individuals, such representations acquired, through time, an autonomous existence which could find independent expression. At a certain point, these "social facts" would also become "partially autonomous realities with their own way of life."<sup>8</sup> For Durkheim, these realities, "myths, popular legends, religious conceptions of every kind, moral beliefs, etc., express a different reality from individual reality." He went on, however, to note that "it may be that the manner in which the two attract or repel, join together or separate, is independent of their content and relates solely to their general quality of being representations."<sup>9</sup> Durkheim's ideas concerning the possible relations between collective and individual representations might also prove to be of value for an analysis of the collective symbolism articulated within the context of the cultural dimensions of producing photographs.

### **Functions of the 'Rites of Passage'**

In the words of J. G. Peristiany, "A social system presents the individual with institutionalized channels and models of action." He goes on to point out that "it provides him [or her] with 'collective representations,' that is with a conceptual framework of action."<sup>10</sup> Similar frameworks for social action can be presented by collective ritual processes. They can, for example, be conceived as social mechanisms, a purpose of which would be, in Edmund Leach's words, the transmission of "collective messages to ourselves." From this point of view, as Leach has noted, "The performers and the listeners" would be "the same people."<sup>11</sup> Turner has also argued that collective rituals can function as mechanisms "that periodically [convert] the obligatory into the desirable."<sup>12</sup> Hence, institutional and ritual processes, to follow Durkheim's insight, would appear to provide a means by which the individual might

be disposed toward internalizing social norms.<sup>13</sup> Turner, however, has also favoured a more multifaceted and creative conception of ritual. In his opinion:

Ritual, in its full performative flow, is not only many-leveled, “laminated,” but also capable, under conditions of societal change, of creative modification on all or any of its levels. Since it is tacitly held to communicate the deepest values of the group regularly performing it, it has a “paradigmatic” function, in both of the senses argued for by Geertz. As a “model for,” ritual can anticipate, even generate, change; as a “model of,” it may inscribe order in the minds, hearts, and wills of participants.<sup>14</sup>

Turner’s work has centred on a cultural process known as ‘the rites of passage.’<sup>15</sup> This process has been categorized into two major groups. The first comprises what are known as ‘life crisis’ rituals. They include the individual crises which mark birth, puberty, marriage, death, and in a more general sense, the passage from one social state to another. The second group is for the most part ‘collectively’ oriented. It includes rituals which mark major seasonal changes or significant transitions in social activity—for example, the passage from war to peace and vice versa.

Although Turner has been instrumental in directing attention to the central sequence of the tripartite process, and his work has proven significant for the analysis of its symbolic dynamics,<sup>16</sup> it was a pioneering investigation by a Belgian folklorist and ethnographer that first drew attention to this class of ritual. Arnold Van Gennep’s classic study *The Rites of Passage* not only laid the foundations for a classification of its dynamics, but also identified the pattern by which this process could achieve the desired social transitions.<sup>17</sup> The pattern was composed of three sequences of activity: ‘rites of separation’ (preliminal period), ‘rites of transition’ (liminal period), and ‘rites of incorporation’ (postliminal period).

Briefly, an ideal model for the sequencing of the rites of passage would involve the following pattern for symbolic behaviour. The rites of separation would be constituted by a prescribed sequence of activity which would precipitate the symbolic transformation from the secular world of the social group to the sacred and abnormal world which, in relation to the former world, could be understood to be outside its order. The second stage, the rites of transition or liminal period, would represent a phase which would bridge the activities marking the separation from the social group and a reincorporation back into that group. This stage would also involve a transformation from the former to a subsequent social state. In Turner’s words:

Unless the fixing and ordering processes of the adult, the *sociostructural* domain, are liminally abandoned and the initiand submits to being broken down to a generalized *prima materia*, a lump of human clay, he cannot be transformed or reshaped to encounter new experiences.<sup>18</sup>

This period, therefore, would represent an interstitial zone of potentiality where the social subject would also find him or herself behind a type of sociocultural stage, faced with the mechanisms by means of which society presents its spectacle. When the desired transformation had been achieved, a further sequence of prescribed activity would be initiated and the subject or subjects would be ‘decontaminated’ so as to pose little threat, in their new condition, to the established social order. The subject would then be ‘socially’ accepted in his or her new state or condition.

The rites of passage would also unfold within a well-defined spatio-temporal boundary which would serve to distinguish its phases from the ‘secular’ or ‘profane’ space and time serving to contextualize conventional social activity. This ritual process would function to take an individual or group backstage (to extend the theatrical metaphor), in order (to borrow Talcott Parson’s words) that the “essential elements of culture and social structure” could be “*internalized* as part of the personality of the individual” or group.<sup>19</sup>

In contrast to this normative view of the rites of passage, it has also been argued that transgressions could be achieved by redirecting or subverting the rules defining a given sociocultural formation. These rites have also been viewed as providing this alternative source for reflexive social action. Turner, for example, has argued that the reflexive potential of this ritual process resides in the liminal phase. In his words, “public liminality is the eye and eyestalk which society bends round upon its own condition, whether healthy or unsound.”<sup>20</sup> These cultural processes, therefore, are both constructive and destructive, or, as Babcock has succinctly stated, they can repeatedly indicate “that man has a rage *for* order and a rage *to* order,” but they “also tell us that we are connoisseurs of chaos with a desire for disorder.”<sup>21</sup> Contemporary work on ritual and reflexivity, particularly the work that I have briefly summarized here, can be directed toward raising a number of interesting questions concerning a specific cultural context for photography.

## The Relation of Photography to Sight

When considered from the point of view of a camera, photography can be conceived in relation to an individual. The individual is the person who ‘takes’ a photograph. This relationship proves to be central to a cluster of questions which one might pose, given a correspondence between photography and the rites of passage. For example, what would photography’s transformative and reflexive characteristics be? What types of linkages would photography forge between an individual and the collective? Could it be considered a performance, and if so, how would its technical aspects, the ability successfully to produce a photograph, interface with the activity of taking it? With this last question we return to the problem of the transformative aspects of the process and the relation between an individual and a culture. Indeed, the series of questions would appear to be permutations of the central issue of how an individual would be culturally (re)defined in the act of articulating this type of technological process.

With the development of photography after 1839, one can perhaps acknowledge that Western pictorial symbolism had reached a watershed in its rationalization. William Ivins, for example, has noted that this progressive “rationalization of sight” was predicated on a dual evolution in man’s capacity for symbolizing the sensual aspects of his ‘optical perceptions.’ In his opinion, pictorial symbols differ from conventional symbols in that they “can be used to make precise and accurate statements even while themselves transcending definition.”<sup>22</sup> This precision and accuracy was the result of their ‘immutability of meaning’ and ‘duplicability,’ the two most important characteristics of a system that would allow sight to be rationalized.<sup>23</sup>

Until the codification of linear perspective in the fifteenth century, picture making was an inefficient means of symbolization, in that pictures could not be conveniently duplicated. And as Ivins states, there were no grammatical systems or sets of rules “for securing either logical relations within the system of pictorial symbols or a logical two-way, or reciprocal, correspondence between the pictorial representations of the shapes of objects and the locations of those objects in space.”<sup>24</sup> Ivins also points out that the development of printing in the form of the wood block at the end of the fourteenth and beginning of the fifteenth century provided the means for “the exact duplication of pictorial symbols for visual awarenesses.”<sup>25</sup> But it was the development and codification of pictorial perspective in the second quarter of the fifteenth century that provided a method for the eventual transformation from what could be understood as a tactile-muscular awareness and intuition of space to a visual one.<sup>26</sup> In effect, it made possible the substitution of the eye for the hand, in that it provided “a practical means for securing a rigorous two-way, or reciprocal, metrical relationship between

the shapes of objects as definitely located in space and their pictorial representations.” While it remained important to picture-making in its narrow sense, Ivins goes on to indicate that it would also prove to be ubiquitous because “the premises on which it is based are implicit in every statement made with its aid.” As he points out:

Either the exterior relations of objects, such as their forms for visual awareness, change with their shifts in location, or else their interior relations do. If the latter were the case there could be neither homogeneity of space nor uniformity of nature, and science and technology as now conceived would necessarily cease to exist. Thus perspective, because of its logical recognition of internal invariances through all the transformations produced by changes in spatial location, may be regarded as the application to pictorial purposes of the two basic assumptions underlying all the great scientific generalizations, or laws of nature.<sup>27</sup>

The grammatical foundations of this system set the stage for a progressive rationalization of sight, which, with the codification of photography in the second quarter of the nineteenth century, culminated in a new phase in the history of the eye. Claims were made that this new technological process allowed one to achieve new standards in speed, accuracy and detail in the depiction of reality.<sup>28</sup> It is therefore surprising that as early as 1861 we find commentators, such as Oliver Wendell Holmes, who were able to lament that “these miracles are being worked all around us so easily and so cheaply that most people have ceased to think of them as marvels.”<sup>29</sup> Indeed, as Edmund Carpenter has observed, “The technology that hoisted man out of both his environment and his body, allowing him to enter and leave limbo at will, has now become so casual, so environmental, we make that trip with the numbness of commuters, our eyes unseeing, the mystery of self-confrontation, self-discovery, gone.”<sup>30</sup> If Carpenter is correct, one is presented with a strange historical and cultural paradox—a progressive rationalization of sight which has had the effect of negating sight. This paradoxical state of affairs could, however, also be the product of the unique process by which collective thought has come to reflect on itself.

### The Camera and the Eye

Within the history of photography, one finds the photograph described by Holmes as “*the mirror with a memory*.”<sup>31</sup> The analogy is, perhaps, not without significance, for the mirror

has, as James Fernandez points out, a significant position within a large number of cultures. In his words it represents “the mind in the mirror,” and more specifically:

... the mirror is and always has been a crucial device of extension and linkage. Given the essential solitary quality of the human condition, the mirror has been a device for escaping the fate of isolation. It is a device by which we can extend ourselves into the other while, at the same time, linking ourselves with that other. We know, in point of fact, precious little about others and although we live amidst a welter of impulses and habits, precious little about ourselves. The mirror shows us a fundamental truth about human affairs. The way that we discover ourselves is precisely the way we discover others and these discoveries are in reflexive relationship.<sup>32</sup>

When considered in relation to the mirror, the photograph represents a similar separation of appearance (or form) from substance. But in contrast to the mirror’s inherent contextualism, a photograph presents the possibility of a doubling of ‘signification.’ That doubling is a product of an increase in the polymorphization and polysemantization of an appearance (a subject/image) which is the result of the construction of a symbolic universe of meaning. This is made possible by a simultaneous decontextualization and associated increase in the historicism of the subject/image when compared to its previous ‘self’ as presented in a given context prior to its optical, mechanical and chemical processing.

The reflexivity implied in self-awareness—which is not only ‘objectified’ outside the individual, as symbolic other, but is, in the case of photography, also fixed against the corroding effects of time—is achieved by means of the creation of a ‘symbolic afterworld’ which ‘reflects’ and/or ‘absorbs’ meaning, and hence provides a possibility for commentary upon a ‘real’ world in apparent flux. An example of this type of reflexivity has been discussed by Richard Rudisill in the case of the influence of the daguerreotype on American society. Rudisill has observed that “the daguerreotypists of America employed their mirror images for the definition and recording of their time and their society.” He goes on to point out that “They taught Americans to be American more completely; they confronted Americans with themselves and sought to help them recognize their own significance.”<sup>33</sup> These photographers, however, could also be understood to have achieved much more, for they produced an historical epoch in the act of decentring it from its own contextualized presence. What we see in those subject/images of pre-1860 America is not only its own decentred appearance, but ourselves (it is important

to note that a daguerreotype consists of an image 'deposited' on a highly polished silver surface—in effect a mirror).

Photographs no longer reflect by means of mirrored surfaces. Nevertheless, they can still be viewed as providing such reflecting and reflexive surfaces, because they increase our awareness of our own condition as historical beings. They do so by providing us with other subjects (subject/images) which have been displaced in space and time. In so doing, they can also objectify and distance a subject in terms of its other 'self,' with the result that a photograph, in general, is open to an ideological play between similarity and difference. But this is not all. There remains the question of the constitution of the complex sociocultural process which allows this play to be achieved. An approach to this process can be forged in terms of the paradox, which has already been raised, of the apparent negation of sight and the mechanism by means of which appearances have been so effectively separated from contextualized substances in the case of photography. This mechanism is the camera.

When one compares the human eye to the conventional photographic camera, one discovers an historically determined inverse relationship between these forms, in that the latter can be understood to represent a mechanization of the former.<sup>34</sup> Both the camera and the eye use lenses to project an image onto a photosensitive substance (the film in the case of the former, the retina in that of the latter). In both, the image is inverted and laterally reversed; both utilize an iris to regulate the amount of light which passes through the lens; and in both cases, the inner lining of the chambers which receive the optically mediated light is black. In the case of the camera, however, the image is focused by varying the distance between the lens and the film; in the eye, focusing is accomplished by varying the thickness of the lens. Finally, in the former, the image inscribed on the photosensitive material can be fixed upon removal from the darkened chamber, whereas in the latter case it is 'as fleeting as that in a mirror.'<sup>35</sup> Given this apparent correspondence, one can perhaps argue that the functional structure of the human eye appears to have been effectively reproduced by the conventional photographic camera. When, however, the latter is considered in relation to the biologically integrated human eye, one can also argue that it remains deficient in that it can be considered to be blind, since it is not completely integrated or wired into a reflexive consciousness. In order to render its subject/images permanent, the biological eye has to enter into a relationship with the mechanical eye, and to be able to see, the mechanical eye must work with the biologically integrated eye.<sup>36</sup> Both therefore function in a symbiotic relationship.

As I have noted, the human eye is not as independent as its mechanical ‘other’ might appear to be. It is wired into a biological system. That system, therefore, also mediates in the process by means of which the appearances captured by the mechanical eye are rendered permanent in the form of subject/images. The relationship between that system, the mechanical eye, and the photographic process has been culturally identified: it is called a photographer. This interrelationship between the biological system, a cultural artifact and a system of production also serves as a context for further questions concerning a ritual of photography.

Could a collective form of sight celebrate the triumph of its optical, chemical and mechanical rationalization by processing a biological system (an individual) by means of, and in terms of its own process of production? Could the individual producing a photograph be simultaneously reproduced as a photographer? And could the reflexivity, implied by the self-awareness which might be created by the photograph, be rendered more potent in that one is aware in ‘taking’ a photograph that one is ‘a photographer’ of some type (amateur or professional, for example, depending on the marking of the terms within a given historical/institutional framework)? Finally, by what collective means has sight been rationalized, what procedure has been used simultaneously to celebrate and institutionalize this collective rationalization? The hypothesis governing the approach informing this chapter is that the most fruitful theoretical perspective to adopt in relation to a general sociocultural framework for photography would be that of a ‘technologically informed ritual process of production.’

### **The Photographic Process as Ritual**

Before outlining the sociocultural characteristics of ‘a ritual of photography,’ I would like to define what I mean by the term ‘the photographic process,’ and briefly describe the type of physical transformation it might achieve.

In its classic black and white, negative/positive contemporary form, the photographic process would ideally comprise the following technical operations:

1. To chemically sensitize a two-dimensional support of some kind.
2. To protect the two-dimensional support against the undesired action of light.<sup>37</sup>
3. To load the camera with this photosensitive material.
4. To expose the material to light so as to obtain an acceptable image.



5. To unload the light-sensitized material from the camera while taking the necessary precautions to protect it from any further influence of light.
6. To chemically develop the light-sensitized material in a protected ('dark') environment so as to obtain an acceptable negative.
7. To chemically sensitize a two-dimensional support of some kind.
8. To protect the two-dimensional support from the undesired action of light.
9. To pass light, in a 'dark' environment, through the negative so as to obtain an acceptable latent positive impression on the chemically sensitized material.
10. To chemically develop the light-sensitized material (in a protected—'dark'—environment) so as to obtain an acceptable positive 'print' of some kind.

This sequence of technical operations is clearly different from any procedure informing the choice or external construction of a particular subject/image.<sup>38</sup> It must also be noted that the photographic process describes the complete production sequence, which has to be understood to be articulated in terms of the role of the photographer.<sup>39</sup>

Since approximately 1888, with the introduction of the Kodak camera and the associated mass processing of exposed films in factory or industrial environments, the photographic process has increasingly been fragmented and diversified. Important sequences of its productive cycle are no longer in the hands of the photographer, having been industrialized (as for example in the case of the factory production of sensitized papers and the increased use of photographic laboratories for the processing of negative material and printing of positive prints).<sup>40</sup> However, for the purpose of the argument being developed in this chapter, the fragmentation of the process cannot be seen to interfere with its ritual dimensions because the subject, in the form of an image, would pass through all the phases of the rites of passage, however dispersed they may be in space and time.<sup>41</sup>

Briefly, the ritual structure of the production sequence would be composed of a rite of separation (the preliminal period) which would optically invert and laterally reverse a given subject. This phase would be accompanied by the subject's physical and dimensional reduction, which would render it portable. From a technical point of view, the optical image would be chemically inscribed into the photographic emulsion by light. This relationship between

the optical and chemical is also fundamental to conventional photographic activity, and is reproduced by the structure of the camera.

The conventional camera is constructed using the following basic elements: a box with a darkened interior, an 'optical' aperture (a pinhole or lens) and a chemical screen (the photographic emulsion).<sup>42</sup> In order to produce a conventional photograph, the three elements must exist in the following relationship: a pinhole or transparent lens to focus and condense light; a darkened box to keep extraneous light out; and a photochemical surface (the emulsion), by means of which the focused and condensed light can be imprinted. The photosensitive surface is opposite the pinhole/lens and is contained within the box. However, if the elements are organized in any other way—for example, if the chemical element is placed in front of the optical element, or if either element is positioned outside the box—one can effectively posit that the conventional camera could not exist.<sup>43</sup>

Although the camera would be central to the rites of separation and could be perceived as functioning as a paradigm for the photographic rites of passage in general (it would also have a close formal and symbolic relationship with the photographic darkroom), it would be only one of a number of elements and procedures defining the rites of separation. The others would include the preparation of the sensitive negative material, its exposure (involving the use of a camera), and the processing of the negative (comprising development, washing, fixing, washing and drying). All of these operations (except possibly exposure) would be conducted in a predominantly dark environment.

The second stage in the process of production would be the rites of transition (the rites of margin or liminal period). This state could be distinguished by the subject's physical negativity. From the photographic point of view, it would be represented by the negative.

The third and last phase in the process would be the rites of incorporation (the rites of aggregation or postliminal period). This ritual sequence can be understood to (re)constitute the positive condition of the subject. It would involve an optical correction to rectify the liminal state of optical inversion and lateral reversal, and, as in the case of the rites of separation, there would be other elements or procedures which would define this portion of the rites of passage. These would consist of the preparation of the sensitive positive material, the printing of the negative (a latent stage), followed by the development, washing, fixing, washing and drying of the positive print. The majority of these operations would also be conducted in the dark (for further details concerning a ritual model of photography see the previous chapters).

Two points can be made in relation to the production sequence I have just outlined. The first point concerns the structure of the sequence. Both sequences of processing a conventional subject/image are limited and defined by the correct ordering of its manipulation (in this case the relationship is as inflexible as the one defining the camera).<sup>44</sup> The second concerns the physical location within which the majority of these manipulations are conducted. The location is the darkroom, which functionally corresponds to the camera body in that it serves to mark off a particular spatio-temporal context in terms of a well defined and ordered sequence of sociocultural activity.

A 'photographic ritual' would have bestowed presence, in the form of its 'appearance,' on the absence of the subject. It would have processed the appearance from an initially contextualized substance and transposed it into a chemical 'analogue'—the permanence and 'stability' of the subject having been achieved by chemical means. In the separation of the 'appearance' from the 'substance' of a subject, it would also have effected a transformation involving the elimination of matter by means of the optical reduction of three dimensions to two, and the abolition of motion, repetition and absence in *concrete* terms. Although the subject would now be permanent (relatively speaking) as a subject/image in society, the symbolic dimensions of the ritual process would also appear to have precipitated its social and symbolic death in terms of an optical and dimensional transformation. It would then have 'frozen' the unstructured subject during a period of ritual isolation, and finally, it would have reintroduced the subject into society by way of its 'restructuralization' in the form of a new photographic state of social and symbolic timelessness and spacelessness. Such, one might posit, would be the defining characteristics of a ritual of photography.

### **Interrelation of Human and Nonhuman Elements in the Photographic Process**

The ritual of photography would, however, not be 'processually' autonomous. It would be mediated by a biological system. Ideally, a particular individual would serve to articulate the subject in its latent-negative, negative, and latent-positive stages so as to obtain an acceptable positive print. One subject would therefore be accompanied throughout the process by another subject, which could be defined in terms of a role: the role of the photographer. In fact, the rites of passage could be understood to process both subjects simultaneously.

One is reminded of Claude Lévi-Strauss's interpretation of the Cuna Indian shaman's role in the case of a difficult childbirth. In that discussion he points out that "the shaman provides

the sick woman with a *language*, by means of which unexpressed, and otherwise inexpressible, psychic states can be immediately expressed.”<sup>45</sup> A language could also operate, in the present case, on at least two levels. At the first level, a series of unexposed photosensitive surfaces would provide a potential state for expression. They could therefore be understood to present a surplus of signifiers (the unexposed photosensitive material) upon the surfaces of which ‘signification’ can then be inscribed with the aid of light. The second level would involve the two aforementioned subjects. The levels could also be understood to be phased and reflexive, for as Lévi-Strauss points out in the case of psychoanalytic and shamanistic cures, “The basic condition remains that the manipulation must be carried out through symbols, that is, through meaningful equivalents of things meant which belong to another order of reality.”<sup>46</sup>

A link between the first and second levels could be achieved by means of a conventionalized correspondence established between the biological and mechanical eyes. This correspondence would be cast in terms of a binary classification system consisting of light/darkness and presence/absence. These oppositions would also be articulated by means of the photographic process, and would involve a transformation from an initial isomorphic condition  $\text{Light} \equiv \text{Presence}$  to an inverted ‘non-isomorphic’ pair  $\text{Light} \equiv \text{Absence}$  (the notation  $\equiv$  symbolizes “is visually identical to”). The transformation would provide a symbolic means of forging a link between a photochemical constant operating at the biological level (the bracketing of the visual apprehension of the physical world by the perceptual limits of light and presence/darkness and absence) and a photochemical constant operating within the context of the photographic process (the perceptual limits defining the physical world in terms of which that process of production would be cognitively and expressively perceived). It would link these two to a corresponding bracketing of a photochemical world presented in the fragmentary form of an appearance which had been inscribed as a photograph (which would find expression in a similar but inverted pair of distinctions, presence and darkness/light and absence). The symbolic connection would be forged syntactically and paradigmatically by the photographic process, and would involve a ‘logical’ transformation, achieved by optical, mechanical and chemical means, of the first pair ( $\text{Light} \equiv \text{Presence}$ ) into a second pair ( $\text{Light} \equiv \text{Absence}$ ) according to the following transformational permutation (Figure 1):

**Sequence of production (production strategy)**

Inversion Inversion

Light  $\equiv$  Presence  $\rightarrow$  (Presence  $\equiv$  Darkness)  $\rightarrow$  Darkness  $\equiv$  Absence  $\rightarrow$  (Absence  $\equiv$  Light)  $\rightarrow$

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**Sequence of reproduction (viewing strategy)**

Inversion Inversion

Light  $\equiv$  Presence  $\leftarrow$  (Presence  $\equiv$  Darkness)  $\leftarrow$  Darkness  $\equiv$  Absence  $\leftarrow$  (Absence  $\equiv$  Light).<sup>47</sup>

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Figure 1. Sequences of production and reproduction

The logical priorities and cognitive concerns which this classification system articulates in the context of the photographic process closely resemble the concerns evoked in the Judaeo-Christian origin myth, in particular those presented in the first ten verses of Genesis (cited from the King James version):

1. In the beginning God created the heaven and the earth.
2. And the earth was without form, and void; and darkness was upon the face of the deep. And the spirit of God moved upon the face of the waters.
3. And God said, Let there be light: and there was light.
4. And God saw the light, that it was good: and God divided the light from the darkness.
5. And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day.
6. And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters.
7. And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so.
8. And God called the firmament Heaven. And the evening and the morning were the second day.
9. And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear: and it was so.

10. And God called the dry land Earth; and the gathering together of the waters called he Seas: and God saw that it was good.

The classification system which operates in the case of the photographic process would also presuppose an ordering principle based on binary distinctions. Order would be predicated, as in the case of the creation myth, on an initial distinction between 'light' and 'darkness'—the two other terms, 'presence' and 'absence,' would only be marked in relation to their 'contrary' terms ('darkness' in the case of 'presence' and 'light' in that of 'absence'). Both photographic and creation processes emphasize the primacy of the ocular mode of sense perception at the expense of the other four senses. They are both mediated by a perceiving entity—man in the former and God in the latter instance. The process of naming would also be of particular importance in each case, especially if one were to accept the argument that the photographic process involves a potential state for expression and the existence of two subjects, both of which must be emergent in terms of specific identity, as process, as product. Finally, both processes are not concerned with the question of the origin or nature of matter. Given this similarity in concerns, I would like to raise the possibility that a correspondence could exist between the two creative processes at the level of their classification systems.<sup>48</sup> This type of correspondence could provide the basis for a mythic explanation for photography's hegemonic role in the Occident (and those areas subject to its influence).

Could photography's fundamental position within an Occidental representational culture be a function of its articulation of a classification system that reverberates in harmony with a series of fundamental events concerning the creation of a cosmic order—the transcendent origins of light and darkness, day and night, and the presence and absence of earthly things? After all, there would appear to be a correlation between the two creative processes by way of a dualistic principle of ordering, the primacy of the ocular sense, and a process of naming which subordinates a perceived reality under the primacy of a perceiving entity. If this is the case, then photography would have achieved its parallel articulation of these events by optical, mechanical and chemical manipulation; that is, by technological means, which would function to render visual appearances permanent in contrast to contextualized substance (matter). Could the photographic process therefore represent the reproduction of an alternative rational and technologically oriented *model* for the creation process? Might one also trace an explanation for its remarkable cultural authority to this common mythic root? And, if this were the case, then how would the individual be infused with this authority? For the moment, I would like to concentrate on this latter question.

Bearing in mind the two levels of a 'photographic language' and the classification system which orders them, one can now return to the question I raised at the beginning of this chapter concerning the relationship between the individual and the collective.

During a discussion of the case of the Kwakiutl shaman Quesalid, Lévi-Strauss makes the following observations:

In treating his patient the shaman also offers his audience a performance. What is this performance? Risking a rash generalization on the basis of a few observations, we shall say that it always involves the shaman's enactment of the "call," or the initial crisis which brought him the revelation of his condition. But we must not be deceived by the word performance. The shaman does not limit himself to reproducing or miming certain events. He actually relives them in all their vividness, originality, and violence. And since he returns to his normal state at the end of the séance, we may say, borrowing a key term from psychoanalysis, that he abreacts. In psychoanalysis, abreaction refers to the decisive moment in the treatment when the patient intensively relives the initial situation from which his disturbance stems, before he ultimately overcomes it. In this sense, the shaman is a professional abreactor.<sup>49</sup>

The first level of a photographic 'language' would also relate to the grammatical system or set of rules underscoring the rationalization of sight epitomized by photography. By placing the perceivable world within the context of a geometrically defined optical system, one would also place the biologically integrated eye within a culture of representation which had been defined by the technical possibilities of its mechanical surrogate. One would have provided it with a language by means of which an individual in the role of photographer would be able to articulate otherwise inexpressible (creative) desires. When considered in relation to the biological eye, the photographer could function in a manner similar to that of the shaman described by Lévi-Strauss. The photographer would not only present the mechanical eye with a subject, but in so doing he would also satisfy a desire for permanence which the biological eye would be incapable of achieving. He would be able to satisfy that desire by providing the biological eye with a language with which it could conquer the perceivable world according to an individually articulated 'cultural vision.' The formal characteristics of this vision would allow for a condensation of values, by means of a geometric grammar. This would allow for the possibility of a mythic education of the eye to become historically, socially, politically

and psychologically contextualized in the form of this particular technological ritual. As Lévi-Strauss has argued:

Whether the myth is re-created by the individual or borrowed from tradition, it derives from its sources—individual or collective (between which interpenetrations and exchanges constantly occur)—only the stock of representations with which it operates. But the structure remains the same, and through it the symbolic function is fulfilled.<sup>50</sup>

And if “any myth represents a quest for the remembrance of things past,”<sup>51</sup> as Lévi-Strauss suggests, then one might correspondingly argue that the photographic ritual could also represent the quintessential mythic mechanism. It would do so from the point of view of its process (which appears to project itself to the very beginnings of order) and its product (which seems to duplicate and fictionalize life in terms of a strategic movement reproducing that order for a future, in terms of a past).

The second level of a photographic language would also involve a process allowing the role of the photographer and his given culture to relive ‘the birth of a photographic order’ while witnessing the emergence of a subject/image from its latent state. This birth would be mediated by an individual ‘in the role of the photographer.’ But that process would also serve to define the individual as a photographer: a simultaneous production and reproduction of process, role and product revolving around a series of prescribed acts.

Furthermore, if a disturbance is needed to render the term “abreaction” intelligible in the present case, one has only to turn to the fundamental perceptual dilemma emerging from the gap between the mental construction of permanence and the visual disjunction between momentary states. For example, one might argue that the former could have found a mythic expression in the binary ordering principle articulated in terms of an ocular classification system on the first day of creation, and a techno-scientific expression in the photograph as the product of a corresponding articulation. The latter could have found mythic expression in terms of the classification system, as well as by way of the conceptual and cognitive distinction between the inanimate and animate. In this case, the problem of local motion dealt with on the fourth day of creation and symbolized by the mobility of the sun, would provide a mythic alternative to a similar cognitive disjunction between the momentary and the permanent—which has found technical expression, from a photographic point of view, in the bracketing action of exposure. Photography could therefore function to provide a *rational*



solution to this type of problem with the production of conventional photographs, for there would be an intimate connection between the classification system and exposure—too little exposure producing darkness, too much exposure resulting in a superabundance of light. A parallel relationship could exist in the case of the visual definition of a subject/image when movement would find expression in terms of exposure time and vice versa. Finally, one might also point out that the relation between the ‘taking process’ and the ‘making process’ of a photograph could prove to be of fundamental importance in understanding the performative quality of a photographic ritual.

The photographic process is predominantly a ‘making’ or ‘manufacturing process’ in the transformative sense. The success of the taking process, in contrast, appears to be based on the successful ‘fixing’ of an appearance. In return, the desire to take a subject creates conditions by which the making process becomes possible, and, in turn, that process provides the means for the act of taking to be rendered permanent. In practice, however, the two cannot be separated, although the content of the taking process can create different possibilities for the making process and vice versa. There is not only a photochemical transformation, but also a corresponding series of perceptual transitions.

Accompanying the physical movement from the context of ‘light’ within which the photographer confronts his or her subject, to the ‘dark’ of the darkroom, to the ‘light’ allowing for the inspection of the negative, back into the ‘darkness’ of the darkroom, is the photographer’s eye. It therefore also moves between and through those limits which bracket and ‘classify’ the ocular world: light and dark, day and night, presence and absence. The transitions in the quality of the photographer’s sensory perceptions are not, however, the only cultural determinates of a photographic vision. There are also the cultural characteristics of a mechanical transformation in the photographer’s powers of perception.

The mechanical eye provides a powerful cultural method by which its biologically integrated counterpart can take cognizance of the visual limits within which it functions, and because of the perfectability of its technological form, it provides the means by which those limits might be transcended. It can also be understood to ‘stand in for,’ or iconically ‘represent,’ the biological eye in terms of the possibilities that it affords for extending the physical and cultural horizon of biological vision. In terms of their structural similarities, however, the two types of eyes are also indices for each other. Moreover, these relationships could also be signified by the classification system underlying the rationalization of sight, which in turn could find

expressive form in each conventional photographic print. The relationship between the two types of eyes is not only created by iconic and indexical relations; it might also involve the synecdochic and metaphoric dimensions. The camera might, in its relative autonomy, stand in a 'part-for-whole' relation to the human body, and because both eyes can be defined in terms of similarities and differences, they allow metaphoric relations to be forged between them. The 'representation' in question can therefore be summarized as a complex body of ocular reflexions.

## Conclusion

Earlier in the chapter, I briefly described photography as a process of production which has suffered the effects and consequences of industrialization. The role of the photographer would also appear to have succumbed to a similar fate, with its dispersion amongst the multitude of individuals who constitute its contemporary identity in a spatio-temporal dispersion from factory production to public and private consumption. The ritual model I have outlined, however, has raised the possibility of the existence of a biological and material/symbolic bond (the Eye) which operates between the individual and the collective in terms of a biological universality (we are all endowed with eyes). This universality would have allowed it to occupy and influence the mediators in its own process of production: those particular individuals who constitute the collective. This union could have been materially and symbolically precipitated by way of the performative interaction of individual biological systems and particular instances of this optical, mechanical and chemical process in the context of a collective rite of passage. A ritual articulation of a collective representation of this type could also serve a parallel cultural function. As a powerful medium to unite individuals under a group tradition, it could find its expression in the history of values ascribed to this representation. Furthermore, these values might also be traced in relation to a history of an education of the eye. The interaction of all these elements would then form the context for an 'anthropology of sight,' which in turn would provide a method for examining the complex epistemological status of this collective representation in the ongoing context informing its cultural history.

Within the context of an anthropology of sight, Turner's notion that "public liminality is the eye and eyestalk which society bends round upon its own condition," would not only function as a neat optical metaphor for the reflexive nature of ritual processes in general, but it could also serve as the emblematic statement of a particular collective representation. It could do

so because the negative, a product of the biologically mediated actions of a mechanical eye, would constitute the liminal phase in a photographic rite of passage, and it would represent a reversal in the normal conditions for visual perception: 'light would be dark' and 'dark would be light.' It is this reversal, however, that creates the possibility for its symbolic grammar to be 'positively' duplicated.

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## POSTSCRIPT

The technical nature of the published articles points to their origins outside of the art world, and yet they were produced in relation to an artistic practice. What advantages are there to this kind of dual research model from an artist's viewpoint? The question is not really relevant if one takes into account the position of an individual who is consciously producing 'visual works' in relation to multiple disciplines and who has chosen to function in terms of a different identity and set of premises. But the choice is also dangerous, because it promotes a loss of identity and filiation which extends to the visual work itself.

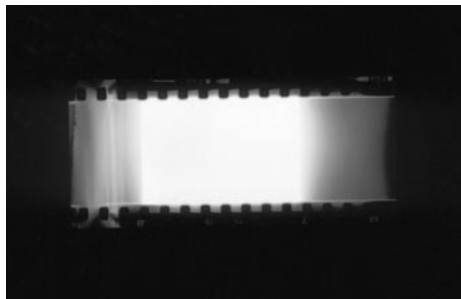
In February 1979 I gave a lecture at Optica Gallery in Montreal entitled *The SX-70 (1972): A Machine for the Critical Examination of Context*. The lecture presented a fundamentally different way of understanding photography's logic and potential role as a picture-making technology. It was based on the marriage of two modes of analysis: a ritual model (originally elaborated in early twentieth century folklore/ethnographic studies and later refined in mid-twentieth century anthropological studies) and a semiological method of analysis that was developed in the 1960s and 1970s in relation to literary studies and studies in popular culture. The lecture was based on a paper that had been written a couple of years earlier for a graduate qualifying course in a newly formed department of history and the socio-politics of science at the University of Montreal. The paper was therefore a university creation and it served as a rite of initiation in the process of academic research and writing. Before this time I had only produced one extended piece of writing on the artistic use of collage in connection with my graduation from art school. The two research projects and their products were very different, even though they emerged from a book culture and its systems of references.

The first was a simple catalogue of received knowledge, the second was distinguished by its use of various methodological tools and databases in the manner of an archaeologist mining a site. The process of writing my first academic paper stretched through various drafts between late 1977 until early 1979 when it was finally accepted for publication. This writing process marked an apprenticeship and route of acculturation into a university culture and the normative procedures governing the codification, circulation, and archiving of information

and knowledge. The 1982 paper (*The Ritual of Photography*) was followed by two others (*A Mechanism for Meaning* and *Toward an Anthropology of Sight*) that developed and extended the model. The second article was written between April and September 1980, was accepted for publication in February 1981 and published in 1983. The third was written between April and June 1983, was accepted in September 1984 and only published in 1988. In retrospect, the dates are significant and worth noting because they correspond with the construction of a set of Experimental Photographic Structures (two of which were performed installations). The first was exhibited between December 1980 and January 1981, the second in February 1981, and the third between February and March 1982. The first extensive text-based performed installation, *Photography: A Word*, was exhibited between January and February 1983. The visual works represent the articles's double inasmuch as the same model was exposed and used in two very different locations, in completely different terms, and vice versa (elements of visual works appeared in different disguises in different publications).

For example, *The Ritual of Photography* serves as the frame of reference for a unique gesture of negation: point a camera at the sun and take an overexposed photograph. Because there is no definable subject registered in the emulsion except a violent surfeit of visible radiation that produces a pure white 'subjectless' image, there is no possibility of being caught and articulated in terms of photography's complex spatio-temporal logic (described in detail in *A Mechanism*

*for Meaning: A Ritual and the Photographic Process*). This simple gesture redefines an art practice that has previously been camera and subject-bound. An act of negation opens the way to producing artworks that are eventually based on a socio-symbolic matrix of systems and intersystems of transportation and communication because the ritual model, in particular in its diagrammatic form, suggests that photography be placed in the category of these material and symbolic processes. Photography is no longer an isolated picture-making



David Tomas, The 35mm film frame selected to print the first two 'Brute' photographs, 1980.

technology with its own technical and pictorial histories. It can now be treated as part of a system of communication and transportation that emerged in the early nineteenth century in the form of railways, steamships, photography and telegraphy.

*A Mechanism for Meaning: A Ritual and the Photographic Process* describes the symbolic structure and dimensions of the photographic process in considerable detail. Connections and references can be easily established between this description and the Experimental Photographic Structures produced in the period 1980–1982:

- the idea that photography is a transcultural process,
- the idea that it can be treated in terms of an analogue symbolic system,
- the use of bridges in the Experimental Photographic Structures,
- the production of “ideologically complex ‘brute’ photographs,”
- the production of the Experimental Photographic Structures on the basis of a distinction between production and viewing strategies,
- the use of similar diagrams in the articles and in the planning of the visual works,
- the addition of explanatory texts and diagrams as integral elements in Experimental Photographic Structure II,
- the modelling of the visual works on the idea of an experiment,
- the idea that the Experimental Photographic Structures were the products of a new type of photography,
- and finally, an interest in exploring photography’s political as well as its symbolic infrastructure.

In retrospect, the mix of references in this chapter often strains the model proposed, due to their different viewpoints and traditions. The chapter’s ambitions and limitations are revealed through these tensions. In contrast, the Experimental Photographic Structures are much more lean, even though their systems of reference are equally extended and stratified.

Although situated in distinct disciplinary spaces, there is clearly an ideational economy between texts and installations that parallels the kind of economy one would expect to find in the case of academic research, or laboratory experiments, and their systems of textual dissemination. Words, concepts and diagrams move between domains, from the space of text-based research to the arena of visual research, and bind the two together. The correspondences that I have noted (there are, no doubt, others) become elements in a new photographic grammar, and they

'Brute' photographs represent a category of photograph, <sup>call</sup> the main product of an ideal ~~and~~ conventional photographic ~~process~~ production process, <sup>individuals, they</sup> ~~they~~ can be described as of the ~~type~~

A 'BRUTE' PHOTOGRAPH

~~THE~~ 'BRUTE' PHOTOGRAPHS REPRESENT A CATEGORY OF PHOTOGRAPH <sup>photographic</sup> WHICH CAN BE DESCRIBED WITHIN THE ~~THE~~ CONVENTIONAL PRODUCTION PROCESS (IDEAL) AS ~~THE~~ SELF REFERENTIAL MEANS OF RESOLVING THE " FUNDAMENTAL COGNITIVE CONTRADICTION; THAT OF THE GAP BETWEEN THE MENTAL CONSTRUCTION OR PERMANENCE AND THE VISUAL DISJUNCTION BETWEEN MOMENTARY STATES" \*WITHIN A CONTEXT SPECIFIC ENVIRONMENT MEDIATED BY LIGHT, THE AGENT OF VISUAL KNOWLEDGE.

IT IS HOPED THAT ~~THE~~ RESEARCH STRATEGY INVOLVING A 'THEORETICAL' AND 'EXPERIMENTAL' EXAMINATION OF THIS TYPE OF PHOTOGRAPH WILL PROVE EFFECTIVE AS A METHOD OF ISOLATING <sup>The structural</sup> THE IDEOLOGICAL FOUNDATIONS OF THIS TYPE OF CULTURAL ARTIFACT.

A ~~MM~~ NUMBER OF POINTS CAN BE MADE IN RELATION ~~BT~~ TO THIS PRESENT INSTALLATION.

- A) THE TIMING MECHANISMS HAVE NO 'MATERIAL' IMPORTANCE BEING CONCEIVED AS THEORETICAL CONDENSATIONS ON ~~THE~~ THEORETICAL --EXPERIMENTAL THOUGHT CONTINUUM. ~~THEY ARE~~ <sup>SPECIFICALLY PARTICULARLY</sup> ~~THEY ARE~~ A GENERALIZATION OF A PARTICULAR STATE OF EXPERIMENTAL AFFAIRS ~~THE~~ THE EXPERIMENT
- B) THE FUNCTION OF THE SEPARATING DIVISION OR PARTITION

b) To separate the photographic 'site' from the area which contains the photograph. This partition provides a means of investigating the photographer's ideomotor <sup>partially in relation to the</sup> and ideological response to the installation. <sup>separation of the</sup>

b) The partition must be transparent. It thus limits the spectator to a consciously spectatorial role in relation ~~to~~ to the photographer's activity as represented by the photographic site. It therefore eliminates all activity which would interfere with the symbolic connotations of the photograph-spectator-blackboard area system.

C) THE PHOTOGRAPH IS THE OBJECT UNDER EXPERIMENTAL EXAMINATION.

D) THE THEORETICAL/EXPERIMENTAL DISTINCTION SHOULD BE VIEWED AS NOT EQUAL TO THE ~~XXXXXXXXXX~~ DISTINCTION AS USED WITHIN THE 'SCIENTIFIC' PARADIGM BUT AS SYMBOLIC ANOLOGUE, WHOSE VALUE IS 'STRATEGIC' WITHIN A TRANSFER OF KNOWLEDGE CONCEPTION OF ART. ~~AS POST CONCEPTUAL AS OPPOSED TO A POST MODERNIST~~

Activity ~~VIEWING~~ ~~THE~~ ~~ART~~ ~~ACTIVITY~~. ~~AS THIS~~ ~~LOOK~~ ~~AT~~ ~~THE~~ ~~ART~~ ~~AS~~ ~~ACTIVITY~~ THAT IS, AN ~~ACT~~ ~~ORIENTED~~ ~~TOWARDS~~ ~~THE~~ ~~INVESTIGATION~~ ~~OF~~ ~~COLLECTIVE~~ ~~STRUCTURES~~ ~~AS~~ ~~OPPOSED~~ ~~TO~~ ~~INDIVIDUAL~~ ~~CONFIGURATIONS.~~

THE TERM ~~WAS~~ ~~NOT~~ ~~AT~~ ~~THE~~ ~~BEGINNING~~ ~~OF~~ ~~THE~~ ~~THIS~~ ~~TERM~~ ~~(DIALOGUE)~~ ~~WITH~~ ~~A~~ ~~VIEW~~ ~~OF~~ ~~CAPABILITY~~ ~~FORM~~ ~~IF~~ ~~IT~~ ~~IS~~ ~~NECESSARY~~ ~~TO~~ ~~USE~~ ~~THE~~ ~~TERM~~ ~~WITH~~ ~~A~~ ~~LEADER~~ ~~OF~~ ~~THE~~ ~~ART~~ ~~WORLD~~

→ R. BARTHES ~~IN~~ ~~THE~~ ~~TEXT~~ ~~OF~~ ~~THE~~ ~~ART~~ ~~WORLD~~ P.

DAVID TOMAS ~~IN~~ ~~THE~~ ~~TEXT~~ ~~OF~~ ~~THE~~ ~~ART~~ ~~WORLD~~ OCTOBER 1980

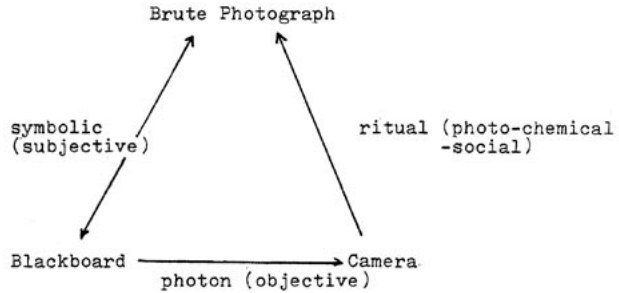
→ The Renewal of Photography by ~~SEBASTIEN~~ ~~SAUTER~~ ~~IN~~ ~~THE~~ ~~TEXT~~ ~~OF~~ ~~THE~~ ~~ART~~ ~~WORLD~~



# INSTALLATION NOTES

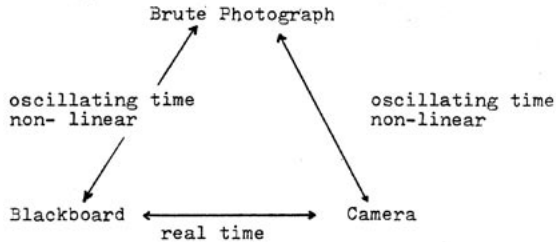
## INSTALLATION STRUCTURE

### (a) Reproductive



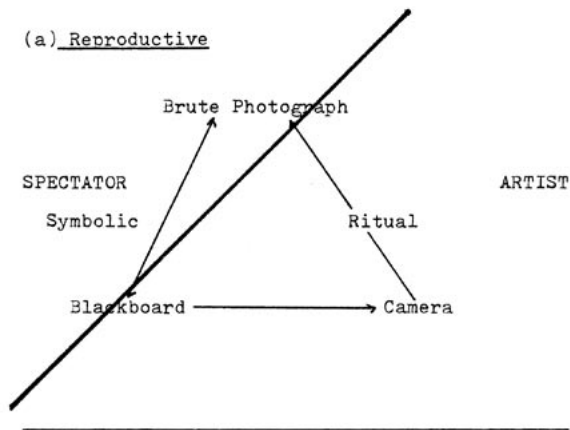

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### (b) Temporal

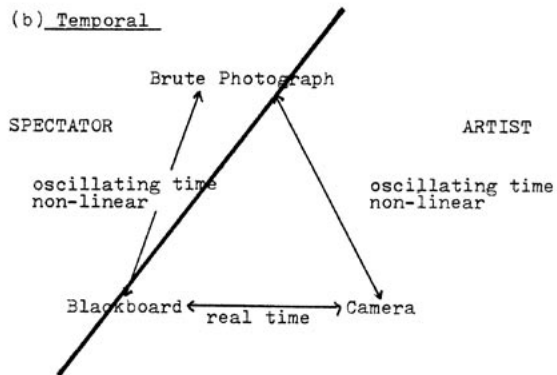


INSTALLATION STRUCTURE  
(Spectator-Artist Relationship)

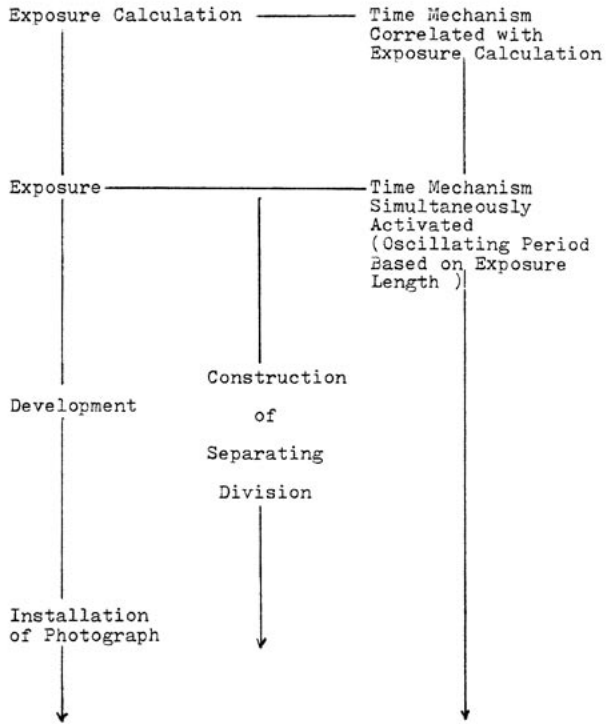
(a) Reproductive



(b) Temporal



REPRODUCTIVE-TEMPORAL SEQUENCE  
( Production of Installation )



Installation Opens

ASPECTS OF THE INSTALLATION TO BE CLARIFIED AT  
THE INSTALLATION SITE

- a) Size of the optical field; therefore point of camera placement
- b) Exact size of the Brute Photograph
- c) Exact placement of the time mechanisms (two)
- d) Size and type of separating division or partition  
( see discussion concerning partition )

All of the above are to be calculated after a detailed examination of the installation site has been made.

FUNCTION OF THE SEPARATING DIVISION OR PARTITION

- a) To separate the photographic 'site' from the area which contains the photograph. This partition provides a means of investigating the photographer's ideomotor activity in relation to the spectator's ideomotor and ideological response to the installation.
  
- b) The <sup>partition</sup> must be transparent. It thus limits the spectator to a consciously spectatorial role in relation to the photographer's activity as represented by the photographic site. It therefore eliminates all activity which would interfere with the symbolic connotations of the photograph-spectator-blackboard system.
  
- c) The partition must be integrated into the architecture of the room.

circulate between the 'experiments,' linking them together in the larger socio-symbolic space of a new kind of photography. This photography is no longer subject-bound in the shape of conventional subject-matters. It is a picture-making activity that is deployed in a new virtual symbolic metasytem and economy of ideas. This new pictorial environment is the register for another consequence of the photographic process's redefinition in ritual terms: the world of technical objects can no longer be defined and classified on the basis of isolated concrete objects. These artifacts can now be linked in many non-material ways through common matrices and symbolic systems. Suddenly opaque artifacts such as cameras, locomotives, video monitors, bridges, camera lucidas, clocks and mirrors dissolve in networks of ideational possibilities. The ritual of photography creates bridges between disciplines, practices, artifacts and histories.

One of the primary consequences of the ritual approach to photography and the performed installations of the early 1980s was the realization that picture-making in photography was not limited to the range of subjects that could be fixed by way of the photographic process. From the time that a 35mm camera had been pointed at the sun and a series of overexposed photographs had been taken, the practice of picture-making in relation to photography changed radically. The overexposed photographs marked a watershed in an artistic practice because they liberated the photographer from the history of photography, the history of photographic images, and, finally, the history of art insofar as it was chronicled through pictorial representations. Perhaps 'liberate' is an incorrect way to describe their effect because their impact produced a 'dislocation' in picture-making activity. Instead of operating in relation to a 'real world' and existing repertoire of subject/images, the artist who had already mutated into an historian who was adopting the role of artist was now also functioning as an historian/anthropological semiologist who was producing visual works 'in the manner of an artist.' A different cultural dimension was exposed, and a metahistory of photography



David Tomas, *Experimental Photographic Structure II*, 1981, The Belgo Building, Montreal. View of media elements. Elements include a mirror and two electronic counters.

Photograph: Gabor Szilasi.



David Tomas, *Experimental Photographic Structure III*, 1982, The Belgo Building, Montreal. This 'experiment' was the first performed installation. View of media elements. The elements include a C.C. Harrison & J. Schnitzer 'Globe' Lens (patented in 1862), a Polaroid Land Camera model 95 that was first marketed in 1948, two closed-circuit television (CCTV) cameras, a stroboscope, mirror, and supporting electronics.

Photographs: D. Tomas.



David Tomas, *Photography: A Word*, 1983, Galerie Yajima, Montreal. View of media elements. The elements include, in addition to a C.C. Harrison & J. Schnitzer 'Globe' Lens (which is not visible), CCTV cameras (visible in the distance), a wall sized mirror, a camera lucida (circa 1840), and a sound system.

Photographs: Centre de Documentation Yvan Boulerice.

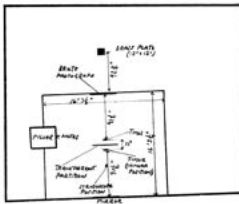
led almost immediately through a series of “Experimental Photographic Structures” to a metahistory of media.

# A BLINDING FLASH OF LIGHT

## Procedure Followed to Produce the Photograph

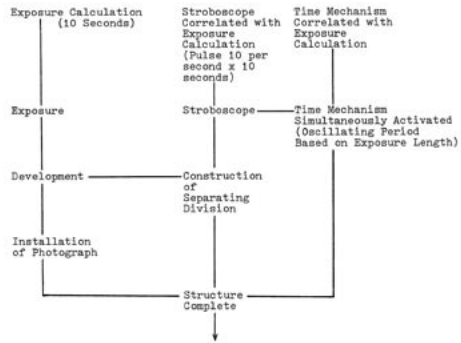
The area chosen to produce the Experimental Photographic Structure was situated in the Belgo Building, Montreal, a manufacturing site for the Montreal clothing trade. The room (301) would seem to have formerly been used to house sewing machines. The residue of this activity can be seen in the presence of heavy electrical cable hanging from the ceiling.

The geometry, dimensions, and positioning of the components of the 'experiment' were as follows:



The dimensions of the 'experiment' having been decided, a camera (2 1/4 x 2 1/4; lens 1:3,5 , f=10,5 cm) was focused into the mirror and on an area marked by the position of a large brass plate (12" x 12") situated on the floor space outside the area demarcated for the experiment. A stroboscope was then placed between the camera and the mirror in order to block any reflected light from the mirror entering the camera lens. (The reflected light was therefore replaced by radiated light emanating from the stroboscope after its activation.) The stroboscope was positioned so as to completely fill the camera viewfinder. The stroboscope was activated (simultaneously with two electronic timers) in the now completely darkened room. The exposure length was 10 seconds at a strobe pulse rate of 10 per second. Radiated light from the stroboscope, which would under conventional circumstances have entered the lens as reflected light from the room and objects contained within it, now passed directly by way of the lens to the emulsion surface. The reflected image convention within the history of photography is therefore consciously denied in favour of a radiated light paradigm and its particular socio-cultural consequences.

## REPRODUCTIVE / TEMPORAL SEQUENCE



David Tomas, Statement and diagrams presented in the context of *Experimental Photographic Structure II*, The Belgo Building, Montreal, 1981.



## NOTES

'Brute'<sup>1</sup> photographs represent a category of photograph, each the product of an ideal conventional photographic production process. Individually, they can be described as the self referential means of resolving the "fundamental cognitive contradiction: that of the gap between the mental construction of permanence and the visual disjunction between momentary states"<sup>2</sup> within a context specific environment mediated by light, the agent of visual knowledge.

It is hoped that a research strategy involving a 'theoretical' and 'experimental'<sup>3</sup> examination of this type of photograph will prove effective as a method of isolating the structural and ideological foundations of this type of cultural artifact.

The production of an experimental photographic structure represents a concrete attempt at an exploration of the consequences of an experimental critique of the collective strategy at the base of a Western image hegemony. This strategy is conceived in terms of a locus for meaning residing in the mimetic photographic image. In contrast to an emphasis on the mimetic image as the focus for a condensation of power in the form of the appropriation of a subject's image, the photographic process is explored within the terms of an ideological critique of the mimetic subject. The cultural function and symbolic structure of photography is experimentally isolated as the production of stabilized light in the form of a 'chemical light mirror' produced in a contextual activity defined as the photographic process. The structure is therefore a specific articulation of the 'chemical light mirror' in a production situation.

A number of points can be made in relation to this present structure.

- A) The timing mechanisms are a generalization of a particular state of experimental affairs -- the exposure as a constant.
- B) The function of the separating division or partition.
  - 1) To 'separate' the context of photographic production from the area which contains the photograph. This partition

provides a means of investigating the photographer's ideomotor activity in relation to the spectator's ideomotor and ideological response to the structure.

- ii) The partition must be transparent. It thus limits the spectator to a consciously spectatorial role in relation to the photographer's activity as represented by the context of photographic production.
- C) The photograph is the object under experimental examination.
- D) The large brass statement is a quote by Karl Marx and Frederick Engels from The German Ideology, Part One.
- E) The photograph was processed by Graetz Inc. of Montreal.

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- 1. The term has its origins in a work of Roland Barthes, Rhetoric of the Image, Image-Music-Text, Fontana/Collins, 1977, p. 44
  - 2. The Ritual of Photography, Semiotica, (In Press)
  - 3. The theoretical/experimental distinction should be viewed as not equal to the distinction as used within the current scientific paradigm, but as symbolic analogue -- An activity whose value is 'strategic' within a transfer of knowledge model for art: That is, an activity predominantly oriented towards the investigation of collective structures as opposed to individual configurations.



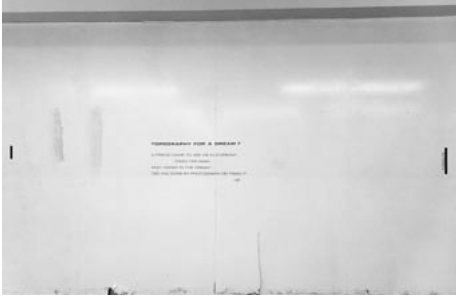
David Tomas, *Experimental Photographic Structure II*, 1981, The Belgo Building, Montreal. View of wall text and brass plaque text.

Photographs: Gabor Szilasi, D. Tomas.

However, when considered visually, the Experimental Photographic Structures needed a verbal or textual explanation because of their formal and abstract natures. Although these statements refer to a specific photographic experiment, they operate in the manner of a bridge linking the university and the art exhibition space. In this capacity, they serve to remind the viewer of an ‘experiment’s’ interstitial characteristics.

There was a displacement and relocation of the short integrated statement, to spatially deployed textual elements, to what can only be described as the full-blown deployment of texts (from various sources) that eventually took the form of an academic paper with its title, body of text, and bibliography. Suddenly, but not surprisingly (given Conceptual art’s highlighting of language, text, and documentation), my artwork itself became textualized, but in fundamentally different ways than it had been in the 1960s and 1970s. Even when

considered in relation to the published articles, the visual works exhibit a highly independent and idiosyncratic relationship to domains of knowledge and their modes of visual presentation. The distinction is clearly attributable to different kinds of operating space: the blank white page or the three-dimensional architectural environment. In the former case, there is very little possibility for the development of a three-dimensional spatial matrix of the kind that can be developed in an architectural environment endowed with its own history and idiosyncratic spatial characteristics. Moreover, certain tools like diagrams migrate between visual and textual domains, thereby allowing one to go beyond constrained areas of analysis and bodies of knowledge. They are not site-specific in the same way that the Experimental Photographic Structures are. Even when located and integrated in a specific space, they tend to point elsewhere in the way that a citation or footnote does.



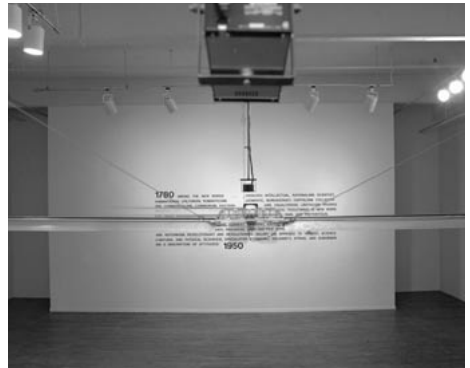
David Tomas, *Experimental Photographic Structure III*, 1982, The Belgo Building, Montreal. View of wall text.

Photograph: D. Tomas.

within the university and increasingly in exhibition spaces. There is also the phenomenon of illustrative ‘theoretical’ artworks to be explored—works that are specifically conceived in relation to existing theories (psychoanalysis, theories of the gaze, postcolonial identity, third space, hybridity, etc.), but have no direct influence on their development.

These observations apply to photography as well, but also in additional ways. Semiology was at the basis of the first systemic postwar theory of the photographic image (Roland Barthes). Since semiology was also implicated in cinema studies (Barthes, Christian Metz, etc.), cinematographic and photographic theories often shared common roots and could provide a common repertoire of efficient tools for similar analyses to be conducted in relation to still and moving pictures. Perhaps it was the community of these theories and tools that encouraged an exchange between cinematographic and photographic theories and the visual arts in the 1970s, to the extent of permeating the image and governing its composition in an extraordinary synthetic process of linguistic normalization.

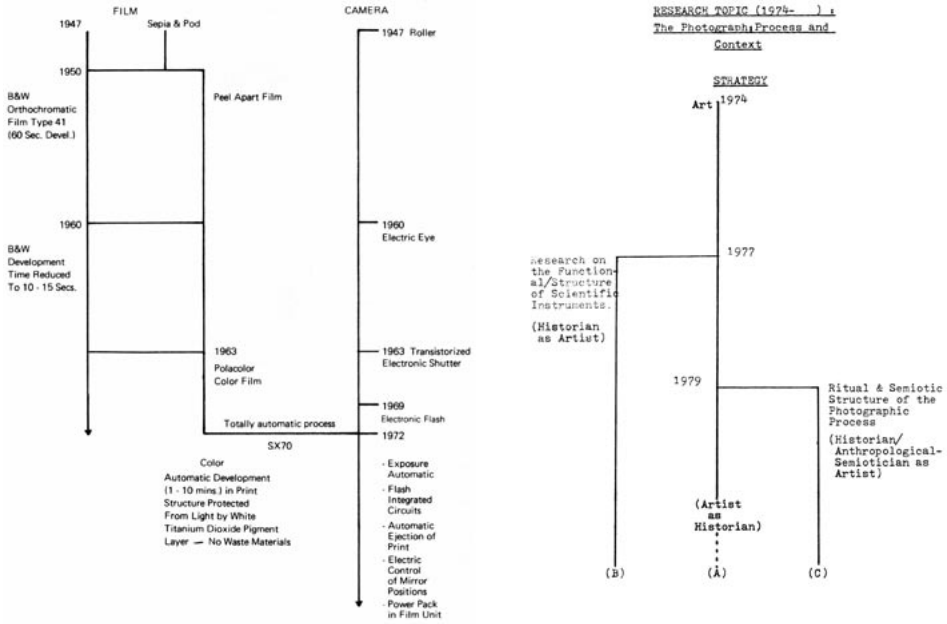
The use of diagrams brings us back to the question of domains of knowledge and their pictorial practices. There is an interesting investigation that has yet to be undertaken concerning the relationship between theory and its medium (the word) and contemporary art practice. An interesting focus for this investigation would be on how the divide between the two has been artificially maintained in the shape of catalogues, critical essays, etc., versus ‘visual’ artworks when the two are now, in fact, completely integrated at the level of the work of art, its presentation and dissemination



David Tomas, *Photography: A Word*, 1983, Galerie Yajima, Montreal. View of one of the principal wall texts.

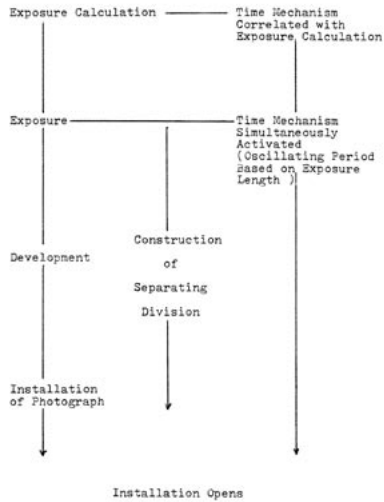
Photograph: Centre de Documentation Yvan Boulerice.

A BLINDING FLASH OF LIGHT

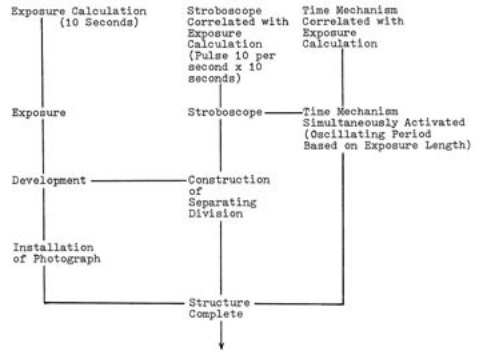


Comparison between a flowchart (Figure 3) from *The Ritual of Photography* with a 'Research Topic (1974- )' flowchart and *Experimental Photographic Structures I & II* ('Reproductive/Temporal Sequence' diagrams) (next page).

REPRODUCTIVE-TEMPORAL SEQUENCE  
( Production of Installation )



REPRODUCTIVE / TEMPORAL SEQUENCE



It is worth noting that one of semiology's attractions for a visual artist, and possibly for photography and film theorists, could have resided in its ability to bridge the pictorial propositions of different media through its modes of theoretical visualization and through its use of diagrams, which implied a common, democratic utopian visual universe of production, display and analysis. Semiology's visual model of the sign, its schematics of systems of denotation and connotation as presented in Ferdinand de Saussure's *Course in General Linguistics* and Barthes's *Elements of Semiology* proved to be efficient tools to open up the photograph's symbolic and ideological spaces to systemic exploration and pictorial exploitation.



Reading Room, Whitney Biennale, 1997.

Photograph: D. Tomas.

They were also extremely useful in opening up the photographic process's symbolic and technological space in the case of a ritual of photography. In this case, semiology provided powerful spatial tools to visualize complex symbolic phenomena. Poststructuralism was, in contrast, limited because of its basic literary and textual paradigm. However, this latter approach certainly paved the way for common narrative universes to be developed in relation to different media.

Theory no longer figures in the practices of artists in the same way that it did in the 1970s and 1980s because it has been effectively absorbed by a general multidisciplinary politics of representation that has been pursued under the auspices of cultural studies and related disciplines such as visual studies in the Anglo-American academic world. Certainly, there is a new economy that is being established through the amalgamation of departments of cinema studies, cultural studies and the history of art into various kinds of visual studies programs that are producing both theoreticians and practitioners that are able to communicate and support each other through a common *lingua franca* that is no longer motivated by a broadly based, politically engaged, counter-culture. Perhaps the word "studies" (in Cultural and Visual Studies) captures the essence of the new motivation and engagement.







### 3. FROM PHOTOGRAPHIC SPACE TO THE SPACES OF TECHNOLOGY



## INTRODUCTION

The camera is a remarkable cultural artifact that deserves its own anthropological study. Here we are in the presence of a small box that is capable of semi-automatically generating pictures. For the first time in human history, the photographic camera introduced the members of rapidly industrializing Western societies to a picture-making process that eliminated the need to pursue the lengthy apprenticeships of artists and draughtsmen that were based on the mastery of specialized tools and instruments such as the pencil, paint brush, and, to a lesser degree, the camera obscura, perspective machine and camera lucida. The camera also equalized the relationship between amateur and professional picture-makers by providing the former with a technology that automated the stages between choice of subject and pictorial product.

The first cameras were redesigned camera obscuras. They were constructed to house two-dimensional photosensitive surfaces which were placed in a position that was opposite the lens and in its focus. The camera has become increasingly sophisticated since then, as lens design and photochemistry were modified and perfected, and the shutter, film winding, and mirror-based viewfinder mechanisms were altered, refined, and then electronically enhanced. Today cameras are compact lens-based computing devices that embody CCD (Charged-Coupled Device) or CMOS (Complementary Metal-Oxide Semiconductor) sensors and docking stations for different kinds of data storage cards. This archival capacity is further enhanced when the camera is coupled to a computer or other electronic storage equipment. These new components have replaced the original camera's revolutionary element: its film. They have extended the camera's and traditional film's capacities by providing for the on-site selection, storage and retrieval of data. The introduction of new versions of old elements, such as a small articulated LCD screen that functions as an additional viewfinder, adds versatility to the camera by disengaging the eye from the necessity of directly interfacing with the viewfinder in order to frame a subject. In addition to allowing the photographer to exploit the spatial dexterity of an arm, the hand of which cradles the camera, this new component serves as an efficient means of previewing and reviewing pictures.

The camera enhances the eye's powers by providing it with a means of fixing optical images. The pictures that it produces guarantee, within the parameters set by film quality (speed, grain, colour etc.), that one's 'vision' of the world is now capable of attaining an unprecedented degree of autonomy and relative permanence. It also guarantees that a user's vision will be endowed with remarkable spatio-temporal mobility. Thus photography introduced the world to the potentially infinite possibilities of industrialized pictures, as well as providing it with an economical archival medium. The pictures that it generates are, for the most part, limited to small-scale artifacts that, in keeping with the camera's ergonomics, are closely tied to the scale of the human body, in particular to the size of the human hand. The large format photographs that dominate public spaces belong to specific subcultures (advertising, fine arts, etc.), and operate at distances that are greater than the reach of an arm. Their naturalness is often disarming from the viewpoint of their highly refined cultural status.

Unless we are specifically interested in the question, we tend to forget that camera, film and photograph are cultural artifacts. This means that they are designed and constructed objects and that they embody information and messages concerning the world and its cultures, and how they work and fit together. Even if the artifactual aspects of the camera and photograph are acknowledged, we tend to tailor our observations to their material form, and often to their design, especially in relation to ergonomics and ease of operation. Discussion is often limited to observations, comments and questions about style and performance (in an engineering sense). In the case of performance, the criteria that define the photograph's pictorial parameters and operational characteristics are limited to lighting, colour, grain and density, which we then conjugate with focus, depth of field, shutter speed and subject-matter. We rarely move beyond questions pertaining to optical and photochemical performance, subject-matter and the pictorial qualities of photographs to engage with this artifact's 'collective' symbolic infrastructure—for example, the classification system that saturates the image but, with rare exceptions, remains beyond the range of subject-matter except in the case of over- or under-exposure. This is also true of the camera, whose symbolic complexity has often been limited by its formal and ideological correspondence with the human eye. Instead of pursuing an anthropological investigation and then basing a photographic practice on it, all our efforts are directed at mastering an increasingly complex semi-automatic picture-making technology. After we have spent time assessing the comparative merits of various kinds of cameras, and after we have made our choice based on our needs, ambitions and budget, we tend to take this artifact for granted in the sense that our attention is narrowly focused on questions of use in relation to product quality. Or else we are content to mine the photograph's subject-

matter with the most sophisticated tools of analysis at our disposal. Hence, photography as cultural artifact escapes our field of observation, only to return to control us in a multitude of invisible ways.

However, if picture-making and consuming is so important in our daily lives, and is increasingly important in contemporary art, then we should devote more attention to this artifact's position and role in our culture. It is not enough to focus on the camera's performance and products in the arts, in other disciplines and in a more global cultural environment. We should also understand its anthropological role in the way we define and construct our world, and in the way that we are defined and constructed through the use of a camera and through its role in the construction and maintenance of personal and collective pictorial archives. For the camera is still at the foundation of our individual and collective memories and identities because of its ability to transmit visual data across previously unmanageable distances and times. This power has only been enhanced by the introduction of digital photography.

The chapter entitled *Photography and Semiotics* represents another direction for developing an anthropology of photography. It was written as a sequel to the previous chapters in the sense that it represents a continuation and development of a ritual model and theory of photography. But it is different in that the analysis it offers of a specific camera system—the Kodak Disc photographic system (produced in various models by Kodak between 1982 and 1990)—is based on the way the camera was conceived and designed according to innovative social and spatial models. Although the chapter is positioned in relation to semiological and semiotic approaches to photography, it argues that these approaches are inherently limited by their narrow focus on the photographic image. It suggests that the disc camera concept represents a model of the social and spatial construction of identity that has not been taken into account by researchers or artists. The same critique applies to contemporary theorists of photography inasmuch as they continue to focus exclusively on the meanings of pictures rather than the cultural/symbolic processes that animate technologies of pictorial production.

The Disc photographic system's 'anthropological' singularity was based on the development of a unique method (a Print Evaluation Program) for quantifying data that could be used in the design of a new photographic system. The program was also developed through the analysis of photographs. It was quantitative in character, and it was designed to produce a new photographic system, as opposed to new interpretations or extensions of existing subjects. The program was also designed to produce a picture-making environment that was honed to

the skills of a particular segment of the population of photographers. These design objectives point to the critical role that corporations have in the construction of vision in society.

Photographic Space was a tool utilized in relation to the Print Evaluation Program. Its novelty resided in the way that it plotted the pictorial activities of a 'class' of photographer, with the objective of matching camera system design to customer usage. Because it was statistical in nature, the space produced a collective abstract picture of an amateur camera user. But this space is far-ranging in its potential influence beyond the immediate picture it provides. Photographic Space functions as a master space of vision because of its capacity to become an organizational and generative site for the synthesis of data to use in a new camera design. This space points to the importance of considering technological spaces and of treating artifacts and design processes in their terms. It also suggests that other technological spaces might exist that could be used to produce different 'kinds' of pictures that are not necessarily tied to the electromagnetic spectrum or existing subject categories, luminescence or distances in the same way as conventional photographs are. Space and geography (defined by usage information) and subject-matter (linked to picture quality information) might be conceived in different ways and forms from those that already exist in the history of photography. For example, errors might be considered to be positive rather than negative pictorial data insofar as they mark the limits of knowledge, skill and technology in cases of individual camera use. Moreover, errors like camera shake and poor focus could be recognized as creating positive pictorial effects and visual parameters for a picture's reception if they were linked to a body's particular physical status (Parkinson's disease). Pursuing picture-making activity in these terms could result in a fundamentally different history of photographs and photographic practices. The accent in this history would be on the limits of knowledge, technologies, and the physical environment associated with camera operators and camera usage, as opposed to a focus on ideal pictures and their physical conditions of existence. Judgment and evaluation would tend to gravitate towards the individual as locus and measure for knowledge, and not towards abstract and ideal criteria linked to the concept of the aesthetically or technically perfect photograph. Moreover, the problem of the individual's culturally and socially governed criteria for judging good and bad images would have to be critically addressed in a different way so that the latter would become positive criteria for determining a photograph's success or failure. Finally, exploring camera design options on the basis of a positive attitude to the questions of print error could lead to new types of cameras and photographs.

In contrast to a ritual approach to photography, the Disc photographic system begins and ends with the photograph. But in the process of translating abstract criteria into concrete objects, a system is refined in terms of an ideal model of the amateur photographer. While there is little in common between this approach and a ritual of photography, they nevertheless complement each other in peculiar ways. If a ritual of photography redefines the relationship between the photograph and the photographic process, translating them into a symbolic process, then the Print Evaluation Program and Photographic Space translate individual photographs and a category of photographer into an abstract data space that can then be used to construct a system that idealistically represents each individual photographer who might use it. Although the exercise is founded on photographs, the space of their normalization is not only visual, but operates through an interface between eye and the camera, and through that interface on the body (for it is this organism that is the source of many of the errors that the Disc system seeks to correct or account for). Thus, the principal targets for normalization are the camera and the photographer. This is not surprising, since they are the principal binary elements that trigger the photographic process which allows photography to continue to exist in an active form.

The Disc photographic system is designed to bind the eye and camera together in a way that anticipates the body's failings which have already been diagnosed in terms of good and bad photographs. This suggests that all pictures somehow already exist in theory, if not within the system itself, then within its Photographic Space. Since the photographer's picture-making capacity has been channelled in terms of a specific camera design, the photographer is confronted with a device that is a complex spatial matrix of vision that potentially embodies, at a virtual statistical level, all possible (amateur) photographs. The camera cannot therefore be considered to be a neutral product. It is a miniaturized space of photographic vision, a new type of 'statistical' camera, that is a model for a collective photographer and eye. The social and corporate natures of this space and model are clearly visible at the level of the published research papers, if not at the level of usage. The existence of this space points to the problem of the author in photography and compounds the question of its identity as raised in chapter 2.3 (*Toward an Anthropology of Sight: Ritual Performance and the Photographic Process*), and reinforces the solution that is adopted in chapter 4.1 (*From the Photograph to Postphotographic Practice: Toward a Postoptical Ecology of the Eye*). It also raises the question of means and ends in relation to developing effective alternatives to existing picture-making technologies. Clearly the camera would not be the only important target for redesign in the case of an alternative photographic practice if one chose not to interfere with the process before light entered the

camera's lens. One would have to engage with the system beginning with the Print Evaluation Program and Photographic Space.

There is another very important question that is implied in the Disc photographic system's design: At what level of organization can one meaningfully locate photography's communication functions? Is it at the level of the photograph, the photographer, or at the level of design? Can it be located *in relation* to all three levels? If this relation provides a more accurate understanding of how photography communicates, then upon what kind of foundation and in terms of what criteria does one build a practice in its terms? These are basic questions. Although all photographic practices seem to have evolved in relation to the photograph, there are clearly other grounds and contexts for the production of a photographic practice (as we can see in the case of the Disc photographic system). But these imply a different (perhaps radically different) model of the relationship between process and product. Although *Photography and Semiotics* discusses the parameters of amateur photography in terms of a single camera design, the relationships it explores—between design, models, practices and identity—and the questions of photographic theory and practice that it raises, are general and fundamental.

Another method of conceptualizing the relationships at play in the design of the Disc photographic system can produce a completely different environment and logic for producing photographically-based visual practices. Herbert A. Simon's "sciences of the artificial" points to a new environment and theory when it proposes that any artifact is a meeting point or interface between inner and outer environments. These inner and outer environments are the artifact's substance, organization and operating context. In *The Sciences of the Artificial* (2d ed., 131, 132), Simon proposes that we consider the artifact's properties to be situated on "the thin interface between the natural laws within it and the natural laws without," and he argues that the process of design is implicated in this "adaptation of means to environments."

However, as we have seen in Section 2, artifacts are not only constructed in terms of natural laws, they are also constructed in terms of social, cultural and mythic laws, as well as classification systems that might also evolve directly or indirectly from natural and cosmic phenomena, as in the case of light and darkness. Since natural laws provide a common foundation for all human activity, cultural laws take on added significance and importance in human design. In other words, ideas and their modes of organization are equal to natural laws in relation to the design of artifacts.



We tend to treat natural laws in opposition to the governing principles that are implicated in the artificial world of culture, and we place them at this world's foundation in the sense that they determine the basic and immutable laws for a culture's material and symbolic existence. However, as Simon's "sciences of the artificial" inadvertently reveals, natural laws can also be marshalled under the auspices of a powerful governing socio-logic: Simon's conception of design is evolutionary in the sense that it imposes a direction, hierarchic logic and natural history on design processes when artifacts are classified along a continuum of complexity, from the relatively simple 'natural' to the highly complex 'artificial' social systems. Although apparently natural, this is not the only way to conceive of the systemic relations between artificial and natural systems or environments in space and time. Ecological or cybernetic models can also produce different non-evolutionary pictures of how systems are organized and interact. They point to different possibilities and practices, whose levels of complexity are not that of an individual object such as a camera but rather that of 'transmaterial' systems and intersystems that combine to produce different pictures that, in turn, refer to unforeseen phenomena and realities. Once we adopt these models, we step outside of current definitions of photography, the photograph and the photographer.

Difference is conceived and manifested through the shapes of concrete artifacts as modelled by design activity. Limits can be set in two ways: by way of the particular configurations of natural and cultural laws that are activated and interfaced through the design process and product; and through sets of cultural rules and laws. *Photography and Semiotics* explores the question of the design and construction of artifacts through 'systems of ideas' about the cultural and natural worlds which are subject to periodic reinterpretation through 'new' interdisciplinary disciplines such as semiotics and Simon's 'science of design.' This exploration suggests that the orchestration, organization and management of vision is therefore a good deal more complex and rich than most photographs suggest through their subject-matter. The latter operate in relation to a different set of rules associated with particular domains of knowledge, categories of subject, composition, pictorial spaces and qualities, methods and rules of interpretation and sets of visual and disciplinary references. A simple device like the disc camera hides within itself another picture of a world and its inhabitants, as well as possibilities of other worlds and inhabitants.



### 3.1 PHOTOGRAPHY AND SEMIOTICS: BEYOND THE LIMITS OF AN EXISTING RELATIONSHIP

... *change the object itself*...

Roland Barthes<sup>1</sup>

In Roland Barthes's opinion, photographic images prompted an "anthropological revolution... in man's history."<sup>2</sup> This doyen of literary semiology and the foremost 'realist' semiologist of photographic images argued that the photograph had indeed heralded "a decisive mutation of informational economies" because it represented "a 'flat' anthropological fact, at once absolutely new and definitively unsurpassable, humanity encountering for the first time in its history *messages without a code*."<sup>3</sup> Without going into the details of his argument, or theoretical inconsistencies attributed to this facet of his eclectic brand of "structuralist syncretism"<sup>4</sup>—which in any case lie outside the domain of this chapter—one might nevertheless note that the anthropological and semiological uniqueness of photographs were explored in Barthes's early work only from an "immanent" point of view, as the production and consumption of photographs were considered, from the methodological perspective of a structuralist "*science of reading*," to fall under the auspices of sociological investigation.<sup>5</sup> This situation (which still represents a dominant stance in semiotic discussions of photography)<sup>6</sup> continued to exist after Barthes abandoned his language-based connotative tool kit in favour of a more eclectic 'semioclastic' "*mathesis singularis*" of "the *Spectator's* Photograph" in his final work, *Camera Lucida*, published in 1980.<sup>7</sup> Thus we find the following topography of (photographic) communication deployed at the beginning of this final work: "... a photograph can be the object of three practices (or of three emotions, or of three intentions)"—which corresponds to the "*Operator*," the "*Spectator*," and the "target" or "the person or thing photographed."<sup>8</sup> The photograph (considered as immanent object of analysis), and the spectator have alternatively been subsumed by so-called structuralist or post-structuralist methodologies.<sup>9</sup> The operator, on the other hand, remains to this day a semiological or semiotic enigma. However, recent work in the development of photographic technologies, and in particular in the application of the quantitative instrument referred to as Photographic Space, not only provides valuable

tools for understanding the social and semiotic construction of the contemporary amateur photographer, but also sheds light on paradoxes highlighted by commentators interested in applying semiotic theory to photographic images—in particular the questions of photography’s status as means of communication and its coded or uncoded nature.<sup>10</sup> In the following chapter I review this exemplary instance of a new type of quantified research tool used to generate Operators in the form of amateur photographers, and argue that it is *terra incognita* for a traditional linguistically governed semiotics of photography.

### Photographic Space and Disc Photography

*The engineer, and more generally the designer,  
is concerned with how things ought to be—how they  
ought to be in order to attain goals, and to function.*

Herbert A. Simon<sup>11</sup>

*The mechanic, the engineer, even the user,  
‘speak the object’; but the mythologist is condemned  
to metalanguage.*

Roland Barthes<sup>12</sup>

In February 1982 the Eastman Kodak Company introduced a “new format for amateur photography”: the Disc photographic system, based on “the most extensive new product development programs in the Company’s history.”<sup>13</sup> Among the novel features (a new lens, new film, and the disc concept) that distinguished the camera from its predecessors was the use, in its design, of a unique method of quantifying data on camera use by amateur photographers. The method, based on a Print Evaluation Program, was entitled Photographic Space. This space was used as a design instrument to quantify the circumstances, frequency, and problems of picture-taking activities by amateur photographers, with a view to obtaining information on the “frequency with which pictures are taken at different distances and at different light levels.”<sup>14</sup> At the core of this design tool was a “set of system capability equations” that “provided a new insight into the relative importance of the parameters that determine ambient exposure capability and near focus limit.”<sup>15</sup> Photographic Space provided Kodak designers with a three-dimensional distributional map that plotted the pictorial activities of amateur photographers. The activities could, in turn, be used to “aid in the design and

optimization of new photographic systems.” Thus it was argued that “it is now possible to optimize the selection of the characteristics of a photographic system to best match customer usage patterns.”<sup>16</sup> Photographic Space was not only used to manufacture the perfect amateur photographic system. It also, one might argue, generated a comprehensive picture of the amateur photographer, conceived as a product of usage patterns and potential camera/film designs. The amateur photographer and her or his camera technology and field of photographic vision were, in other words, simultaneous products of sophisticated statistical versions of this generic photographic visual space.

A simple diagrammatic representation of Photographic Space (see Figure 1) is composed of two axes: the first is a camera-to-subject axis quantified in terms of feet or metres; the second is a measure of the luminance or brightness of a scene expressed photographically in footlamberts or candelas per square metre (adjusted to take into consideration actual picture-taking habits as they affect exposure—in particular, reflectance and direction of lighting). The camera-to-subject axis marks the limits of subject distance computed from zero feet to infinity, and the ambient light axis ranges from maximum brightness (in the case of snow, for example) set at 2000 footlamberts (fL) to minimum brightness (zero fL). This ideal type of graph can be used to plot the operational capabilities of any photographic system when considered in relation to given technical criteria on camera (lens) and film (sensitivity) performance. The space, when used to plot these characteristics, is then known as a System Coverage Space. The technical criteria used to plot a System Coverage Space are, however, governed by the notion of ‘picture quality’ considered as a function of “limiting distances and light levels for which the system is still capable of taking good pictures.”<sup>17</sup> In short, a System Coverage Space allows one to plot the operational spaces covered by particular camera systems. This space describes the technical geography (in particular the focal and exposure boundaries affecting picture quality) or operational territory (for example, the indoor/outdoor or flash/ambient light operational latitudes) of the system. Thus, “as the capabilities of the

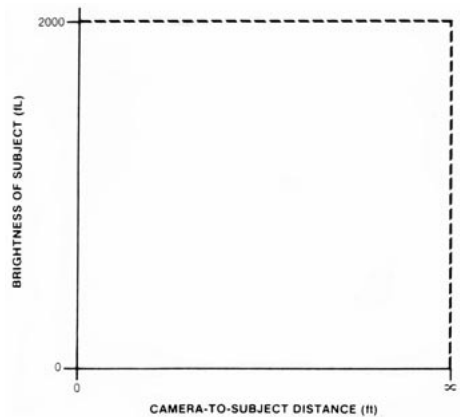


Figure 1.  
Simple representation of photographic space.

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photographic system are extended to cover a broader range of picture-taking circumstances the actual usage of the system expands in photographic space.”<sup>18</sup> It does not, however, provide the type of technical data needed to design “improved” photographic systems—“additional data” are needed, “the most important being information which describes how frequently photographers take pictures in each segment of Photographic Space.”<sup>19</sup>

A System Utilization Space is the proposed arena for displaying data on photographic habits, in particular data on the frequency of acceptable picture-taking activity in each segment of Photographic Space. The space is therefore a three-dimensional rendition of the actual picture-making habits of photographers, with the third dimension devoted to plotting the frequency distribution of photographic activity throughout the various sectors of Photographic Space. However, as Terrence Faulkner and Thomas Rice point out, “The conditions under which people take pictures are, of course, influenced by the capabilities of their cameras.”<sup>20</sup> Thus different cameras and film speeds create different System Utilization Spaces. The space, in other words, will be divided up according to a slightly different topography, given different camera technology configurations and film sensitivity. A System Utilization Space can be contrasted with an ideal frequency distribution space produced by a hypothetical photographic

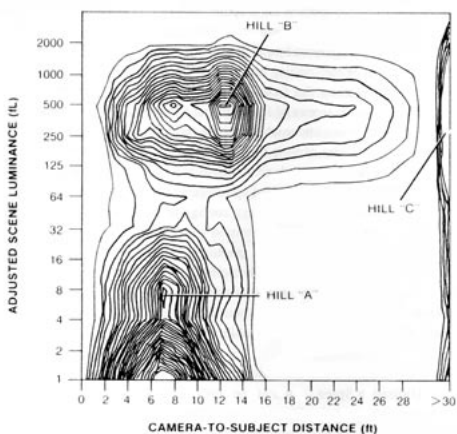


Figure 2. Contour map representation of a System Utilization Space.

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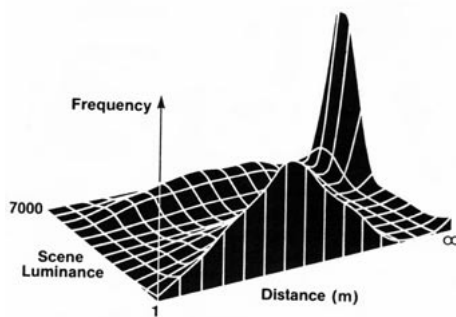


Figure 3. System Utilization Space, three-dimensional model.

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system capable of taking “acceptable pictures in all areas of Photographic Space,” in which case it is then known as a Motivation Space. A space of this kind is considered by designers to be “a theoretical frequency space that photographic systems can move toward as their capabilities increase.”<sup>21</sup>

Figure 2 illustrates a two-dimensional contour map or topographic rendition of System Utilization Space. Each of the ‘hills’ in this rendition represents high concentrations of photographic activity. In the words of Faulkner and Rice, “Hill ‘A’ that peaks at a camera-to-subject distance of about 7 feet and 6 fL is primarily composed of pictures made indoors. Hill ‘B’ that peaks at about 6 to 12 feet and about 500 fL is largely composed of outdoor pictures of people. The large Hill ‘C’ that peaks at a far distance (30 feet to infinity) and about 500 fL consists of landscapes, views of buildings, and other similar scenes.”<sup>22</sup> In Figure 3 one notes the addition of this third dimension to register the quantity of photographic activity “at any given light distance range.”<sup>23</sup> There is little doubt, therefore, that Photographic Space is more than a particularly interesting representation of the spatialization of social vision processes as manufactured through photographic systems. It is, in fact, a ‘master space’ of photographic vision in the sense that it has the potential to become a central synthetic, organizational and generative locale for new configurations of data used in the design of new camera systems. Its fundamental role in organizing data on photographic vision is best exemplified through a consideration of its whole cognitive architecture.

An elementary two-dimensional rendition of Photographic Space is plotted in relation to two fundamental cognitive orders. The first is an electromagnetic order (expressed in terms of ambient luminance), and the second is a spatial order (expressed in terms of camera-to-subject distance). Photographic Space is therefore none other than a particular graphically encoded ‘space of vision’ produced through the interaction of a natural order governing the physiology of vision, and a social order that governs the spatial disposition between individuals and between individuals and things (see Figure 3). These orders, in the case of System Coverage Space, are seen to be determined and constrained by local technological factors: the photochemical latitude of particular film products and the near-focus limit of individual photographic lenses. In the case of a Motivation Space and Disc photography, one confronts a higher-order corporate dimension implicated in the production of social meaning in the arena of amateur photography. Meaning construction, when considered in relation to Photographic Space, is without doubt a complex dimensionally laminated socio-cognitive activity. A semiotics of photography must take this space into account (even at the risk of its

own radical transformation), for, as the research and development history of Disc photography indicates, these kinds of design tools will become important instruments in the production of contemporary photographic systems.

### Toward a Semio-Space of Amateur Photographic Vision

*The Photographic Space concept, the Systems Capability equations, and a data base describing the actual usage of popular photographic systems constitute a package of tools that can contribute significantly toward achieving the goal of better pictures.*

Terrence W. Faulkner and Thomas M. Rice<sup>24</sup>

The Kodak Disc camera was the result of an extensive development program tailored to produce an amateur photographic system with extended capabilities and special features. Noted features included compact camera and film size, while extended capabilities subsumed ease and convenience of use as conceived under the rubric “decision free photography,” as well as improvements based on the “idea of a camera that would always be ready to take a picture when the customer wanted one.”<sup>25</sup> These enhancements were further complemented by technical criteria pertaining to extended picture-taking capability, improved performance, and (in conjunction with the disc concept) “significant photofinishing benefits.” In the minds of the product development team, such design criteria would produce advantages that could be readily “recognized by amateur picture takers.”<sup>26</sup>

The translation of projected capabilities and features into a marketable design package was achieved by way of a Print Evaluation Program (which Kodak had instituted in 1976), the Photographic Space concept, and an extensive series of ‘Human Factors’ experiments.<sup>27</sup> The Print Evaluation Program was recognized as a fundamental component of the design process in that “the achievement of meaningful improvements requires a description of the conditions under which customers use their cameras and an understanding of the kind of problems they encounter in taking pictures.”<sup>28</sup> One notes, as the preceding comments indicate, a two-part approach to the problem of data collection: one part devoted to documenting the conditions of camera use, and the other dedicated to recording the pictorial problems generated by amateur camera-related activity. The data produced by this program soon provided a substantial



representation of the picture-making activities of amateur photographers. These activities, in turn, furnished the data base necessary to produce a basic System Utilization Space.

One can plot, beginning at this 'ethnographic' level of data collection, the empirical parameters of amateur photographic vision and its 'semio-logic' as it emerges in the case of the Disc system of amateur photography. These parameters are of interest as an alternative site for the genesis of semiotic descriptions. Classic structuralist analyses of photographic images, of the type developed by Barthes in his early papers on photography, are ostensibly founded on the governing principle of *'immanence.'* In other words, they follow the rule that "one observes a given system *from the inside*"—from within the confines of a given corpus and in terms of its own semio-logic.<sup>29</sup> It is by way of this principle that the object and corpus of a semiotics of photography has traditionally been isolated for analysis.<sup>30</sup> This principle can still be detected in Peircean (as opposed to Saussurean) inspired post-structuralist investigations, such as Philippe Dubois's analysis of the photographic "image-act." The investigation nevertheless pivots on the unique "indexical" sign characteristics that, according to Dubois, generate this unprecedented mode of "thought."<sup>31</sup>

The body of sociological data generated by Kodak's Print Evaluation Program and its role in the research and development of the Disc system of amateur photography, seems to provide an alternative corpus and semio-logic for semiotic description. It does so simply because it supplants the relationship between photographs and 'spectators' with the relationship between 'operators' and corporate designers. Semiosis is, as a result, conceived as issuing from design-related activities. At this juncture, it is important to note that a semio-logic of photographic vision of the kind displayed in a given System Utilization Space, exhibits a paradoxical relationship to the conventional photographic image. It is simultaneously a projection of the collective picture-taking habits of a given group of amateur photographers and a demonstration of the future picture-taking habits of amateurs using this system. This auto-reflexivity does not, however, constitute a limit to its novel characteristics, for its semio-logic operates, as previously noted, through different spatial and sociological dimensions. Therefore, one wonders whether these novelties might not engender a different 'object' of analysis which would render obsolete the various methodological and linguistically governed tool-kits forged in response to the need for immanent analyses of photographic images. In order to explore fully the ramifications of the distinctions I have noted, and further pursue the questions I have raised, a brief descriptive inventory of selected features of this alternative space is in order.

Notwithstanding the fact that the dimensional composition of photographic vision is to be clearly discerned through Systems Utilization Spaces, one must turn to the pattern of categories and criteria used to organize the data collected through the Print Evaluation Program. This is necessary in order to understand the composition or system of prescriptions and interdictions that underlie contemporary amateur photographic activity as exhibited in the case of the Disc camera system. Thus one notes, in the first instance, a pronouncement that a “print evaluation data base” provided “a means of prioritizing the problems that occur when people take pictures.” It was further noted that by this means one can identify “the problems that are most important to address in the development of a new photographic system,” and, “since the data base contains a record of the picture-taking circumstances for each print it is possible to relate the problems to these circumstance.”<sup>32</sup> Although we have already met these criteria, it is important to reiterate them, for they were complemented by a number of other stipulations: (a) the Print Evaluation Program should, in order to provide an effective data base, encompass information generated in relation to camera models “representative of the total population of cameras used by picture-takers”; (b) the sampling should be large enough to produce a fairly comprehensive representation of the picture-taking habits of amateur photographers (the data base, at the date of publication, contained full descriptions of 40,000 colour prints and “partial data on many thousands more”); and (c) the sampling had to be “seasonally balanced.”<sup>33</sup> The range of the Print Evaluation Program prompts one to investigate the classification that the system adopted to describe amateur picture-taking habits and its connection to Disc system design parameters. It also inspires curiosity about the relationship between the corporate production of amateur photographic vision as well as the social production and industrial reproduction of subjectivity in the case of amateur photography. One begins by noting that the Program classified information according to two major qualitative categories: camera usage and picture quality.

The information on camera usage was distinguished according to twenty pertinent characteristics: location, camera-to-subject distance, primary illuminant, etc. Information on picture quality was broken down into a similar range of problems: underexposure, camera shake, poor focus, finger-over-lens, etc. These problems were rated in terms of severity on a four-point scale, and were then rated in terms of an overall quality scale. The reason for this refined classification was as follows: “Some prints may contain more than one problem and this overall rating integrates the effect of the problems along with any relevant effect from scene factors.” A six-category scale ranging from “Excellent” to “Not Worth Keeping” was chosen as the best method of “rating overall quality,” owing to its advantage “of being

suitable for having photographers rate their own pictures.” This also produced a ready-made definition of what was considered an acceptable picture—thus one finds the term “Yield” introduced “to describe the proportion of pictures produced by a photographic system that would be rated Good or better.”<sup>34</sup>

A number of cursory observations can be made with regard to such classifications of amateur picture-taking habits. In the first place, the classification effects a qualitative mapping of the parameters of amateur photographic vision, considered both as spatial or geographic process (“usage information”) and pictorial system (“picture quality information”). The classification also plots the pattern of implicit socio-technological proscriptions and interdictions that govern these parameters.

It can be useful to recognize that most of the problems that degrade picture quality can be organized into two classes corresponding to... two areas of opportunity... One area... was extended capability. Many problems occur when the photographer attempts to take a picture that is beyond the capabilities of the system. The subject may have been too close for focus or there may have been insufficient light or the shutter speed may have been too slow to assure adequate sharpness. Another class of problems is related to the area of opportunity described as ease of use or decision-free photography. These are cases where the photographer was required to make a decision or take an action and made an error. A 110 user may forget to turn over the flipflash, the user of a focusing camera may forget to focus, or the 135 user may fail to securely engage the film leader in the take-up spool.<sup>35</sup>

The camera is a key factor in a semio-logic of amateur vision, especially since the photographer is, from a design perspective, increasingly considered as a rather unreliable ‘camera-function.’ There is, furthermore, little doubt that this strategic relationship depends directly on the successful application of the classification system to actual amateur camera usage. The consequence is obvious: the Print Evaluation Program is destined to dissolve the amateur photographer insofar as it successfully maps the collective picture-taking habits of ever-larger bodies of amateur photographers. Thus one finds that the autonomous photographer is increasingly considered (in view of an expanding body of more refined data) a problematic component of the camera system. A logical conclusion of this process is that the photographer’s subjectivity is increasingly considered to be subsumed by the decision-making processes of the camera system.

There is also an important corollary to this process: the Print Evaluation Program simultaneously furnishes Kodak designers with enough information on amateur picture-taking habits to trace, classify, and (in the case of Photographic Space) plot amateur photographic vision. This information is then transformed, by way of the various Photographic Spaces, into the blueprint of a final product—a machine specifically designed to maximize the picture-taking habits (the photographic vision) of amateur photographers. Photographic vision and Photographic Space are thus considered as products of one and the same system/process, to be then externalized as part of an overall production process identified with the picture-taking habits of amateur photographers.

Not only is the agent (the amateur photographer) qualitatively pictured in terms of a series of “customer usage patterns” (a ‘collective’ picture),<sup>36</sup> but this agent is also statistically and therefore ‘quantitatively’ pictured. In other words, the vision space of Amateur Photography is both a collective vision space and a generative quantitative space of Amateur Photography. This important point has a direct bearing on a semiotics of (amateur) photography in the sense that both (amateur) photographic vision and the (amateur) photographer’s role are manufactured simultaneously by the same spatially deployed technological process.

What, then, are the characteristics of this process of semiosis? The production space that served as the locale for conceptualizing the Disc camera was composed of a “projected disc utilization space”<sup>37</sup> superimposed on a System Coverage Space:

Our goal is to maximize the number of good pictures produced by a photographic system under its normal conditions of use. This is accomplished by adjusting the System Coverage Space to cover as much of the Utilization Space as possible. That is, the design of the photographic system is optimized for the kinds of picture that people using that system will attempt to take. The Photographic Space concept, the Systems Capability equations, and a data base describing the actual usage of popular photographic systems constitute a package of tools that can contribute significantly toward achieving the goal of better pictures.<sup>38</sup>

The projected disc utilization space was, in the case of the Disc camera, the product of the comparison of several 110 and 135 systems. The Disc system was therefore constructed in relation to other existing photographic systems, and yet “it was expected that the utilization space for the disc photographic system would be different from that of other amateur photographic systems because of its extended capabilities and special features.”<sup>39</sup> In lieu of

an extended technical discussion, it is perhaps sufficient to reproduce the following synopsis detailing the relationship between System Coverage Space, System Utilization Space and System Capability Equations:

By superimposing a system coverage space on a system utilization space, it is possible to calculate the percentage of customer pictures which fall within the system coverage space boundaries. Further, by understanding how the location of the coverage boundaries are influenced by the design parameters of the system, it is possible to optimize the design to maximize the percentage of the utilization space covered by the system. To perform this optimization for the disc system, a pair of equations was derived to define the location of the ambient and flash system capability points in terms of the basic system design parameters.<sup>40</sup>

One must not forget, at this point, that usage and picture quality information provide a qualitative foundation for the development of new photographic systems because they generate knowledge about the extent and limitations of amateur use of identifiable photographic systems. Thus two broad classes of factors that affect picture quality were identified. The first was connected to extended capability, and the second to decision-free photography. Both classes provided important areas of potential design improvement, and were therefore targets for human factors studies.<sup>41</sup> Successful quantification of the qualitative data through the application of the Photographic Space concept and System Capabilities Equations led to improvements in photographic space coverage and a reduction in the need for user decisions.<sup>42</sup> These improvements created a powerful device capable of automatically transforming camera users into systems-dependent 'camera-functions.'

Such potentially powerful systems for managing picture-taking activities generate questions concerning their exact status as a means of communication. Specifically, at what level of organization can one meaningfully address the communication functions of photography? Is it at the level of the photograph, as hitherto argued, or is it at the level of the photographer (a position which has fallen into semiotic disrepute in recent years)? Alternatively, should one seek these functions at the level of corporate design activity, or is it in relation to all three levels that one must begin to understand the social (and therefore communicative) functions of photography? Such questions automatically complicate overtly simplistic communication models of the type that have hitherto dominated a semiotics of photography, because they can only be meaningfully addressed, as the research and development history of the Disc

photographic system illustrates, in the context of the social and corporate management of contemporary popular vision.

### Issues Pertaining to a Semio-Space of Amateur Photographic Vision

*The possibility of creating a science or sciences of design is exactly as great as the possibility of creating any science of the artificial.*

Herbert A. Simon<sup>43</sup>

A semiotics of photographic images has laboured toward self-definition in a contested field. Diverse methodologies and conflicting opinions over the relevance of first principles have hindered attempts to apply pertinent linguistically derived “operational concepts”<sup>44</sup> to the types of images produced by camera systems. Foremost among the constraints under which it has functioned, have been issues concerning photography’s status as mode of communication and its coded or uncoded nature, not to mention questions of nomenclature verging on what one commentator has described as “linguistic fetishism.”<sup>45</sup> One notes, in connection with its contested communicational status, Georges Mounin’s brief discussion of photography’s possible status as a “means of communication,” “system of communication,” “code,” or “language.”<sup>46</sup> The field, if one can indeed call it that, has not coalesced with the passing of time. Witness Barthes’s eclectic, personalized approach to photographic images in *Camera Lucida*, an approach nevertheless anchored in ‘realist’ epistemological presuppositions.<sup>47</sup> Then compare the Barthes that championed this “*mathesis singularis*” to Mounin, who, on the other hand preferred to adopt a cautious analytic approach to a semiotics of photography, and who began from the premise that photography is “a specific means of communication” and then went on to consider the photograph as a “construction” in the sense that the image “is never the objective reproduction of the referent (an objective statement), but... is beyond this a subjective interpretation of this referent (an enunciation).” The receiver, in this model, possessed a range of responses from unequivocal decoding to purely subjective interpretations of the ‘message’—“this outside or despite the construction the sender wished to be constraining.”<sup>48</sup> (One notes, in passing, that this acknowledgment of the inherent ambiguity in photographic ‘communication’—an ambiguity that, needless to say, also fascinated Barthes—affirms Juri Lotman’s conception of communication as “translation” or “re-encoding.”)<sup>49</sup> Recent influential

poststructuralist semiotic and classic psychoanalytic attempts to resolve the perplexing issues of communication and coding from the novel points of view of a displacement in a Peircean-inspired sign typology (from iconic or symbolic to the indexical characteristics of photographs), or through a focus on the comparative analysis of the photograph and film as potential fetish objects, have only served to illustrate the theoretical generativity and wide-ranging influence of photography's complex epistemo-ontological status.<sup>50</sup>

The distinction between the approaches championed by Mounin and Barthes is symptomatic of general epistemo-methodological fissures in a so-called "science of signs," fissures between activities dedicated to formal analysis and practices based on a conviction that the field of linguistics itself (from which semiotics still derives the majority of its operational concepts) is now in a process of "deconstructing itself."<sup>51</sup> This range of approaches has not escaped commentary.<sup>52</sup> Jean-Marie Floch, in particular, following J. C. Coquet, has chosen to introduce his Greimassian-inspired reading of a photograph by Edouard Boubat with a range of analytic relations adopted by those interested in semiotic analyses of objects like photographs. They are worth noting, for they are indicative of a fundamental epistemological latitude with regard to a common object of analysis in the name of a semiotics of photographic images. The first of the approaches, designated as "positivist," is that which posits the photograph as an *a priori* "observable." ("The aim is sound, but the description is based on an *a priori*. The only thing at stake is the renewal of wholly pragmatic methods.") The second posits both object and subject as contested domains, and seeks to replace these sites with the deliberate cultivation of ambiguity with regard to questions of definition. Such ambiguity tends, in Floch's opinion, to transform the analyst into a writer. The third is defined as a process of discovery by which the object, never an *a priori* given, is constructed to be apprehended at the conclusion of a series of instrumental actions. It is this third approach that can, according to Floch, engender a "semiotics of the visual object," an effective antidote to a "semiology of the image" with its tendency to confuse perceived images with image-messages.<sup>53</sup>

Although the field has been unified in claiming the photographic image as its object of analysis and has been unanimous in addressing the image from the point of view of the semiotician (or semiotician rewritten as 'spectator')<sup>54</sup>—in the case of photography, a "science of signs" has, in other words, always taken the dominant form of a "*science of reading*"<sup>55</sup>—it has nevertheless suffered, as previously mentioned, from geo-logic shifts in its epistemological foundations. Fractures are most evident in the drift in attention from analyses devoted to fixing and defining the communicative operations of photographic images, to deliberations concerning

strategies for textual digression and disruption by means of the Barthesian “*punctum*,” for example. However, photographs are not semiotic objects *sui generis*, and photography is not a system or process that can be defined solely in terms of a “science of reading.” As the research and development history of the Kodak Disc camera illustrates, photography is now a field dominated and regularized by major corporate activity to the extent that one must now trace the production of meaning through extensive ethnographically inspired and statistically organized studies of usage behaviour, through complex Human Factors studies and simulated Photographic Spaces, to a final product that defines ‘its’ object less in terms of images than in terms of design management processes (an ecology of statistical studies, simulated spaces and camera-functions). The efficiency and reproductive power of this type of corporate ecology prompts one to search for another, more appropriate method to conceptualize those processes (first publicly revealed in trade and scientific literature) which we see operating in the case of the Disc photographic system—for design and production spaces are not evident to those who are, for one reason or another, not privy to this sector of discursive knowledge. In short, a science of reading must give way to a critical mode of apprehending the imperatives and operations of the type of systems management and design processes that engender amateur photographic systems. A positive version of this science (for such operations turn out to be of a considerable order of social generality) has recently been proposed by Herbert A. Simon under the title “The Sciences of the Artificial.”

Simon has outlined the perimeters of a science in which objects of analysis are “complex systems that live in complex environments.” The ‘artificial,’ in this science, is distinguished by the following criteria:

1. Artificial things are synthesized (though not always or usually with full forethought) by man.
2. Artificial things may imitate appearances in natural things while lacking, in one or many respects, the reality of the latter.
3. Artificial things can be characterized in terms of functions, goals, adaptation.
4. Artificial things are often discussed, particularly when they are being designed, in terms of imperatives as well as descriptives.<sup>56</sup>

The artificial is conditional on an artifact’s adaptive (functional) relation to a goal (artifact being understood in this case as a concretization of the artificial). It also functions as an



interface with the real world. Thus “the purpose or goal, the character of the artifact, and the environment in which the artifact performs” are the systemic components of “purposeful” activity or semiosis. The artifact, considered as “interface,” is “a meeting point... between an ‘inner’ environment, the substance and organization of the artifact itself, and an ‘outer’ environment, the surroundings in which it operates.”<sup>57</sup> Simon later emphasizes the important point that “The peculiar properties of the artifact lie on the thin interface between the natural laws within it and the natural laws without.” A point he elaborates upon in the following passage:

The artificial world is centered precisely on this interface between the inner and outer environments; it is concerned with attaining goals by adapting the former to the latter. The proper study of those who are concerned with the artificial is the way in which that adaptation of means to environments is brought about—and central to that is the process of design itself.<sup>58</sup>

Simon argues that the privileged position of the interface in a science of the artificial is a product of “the relative simplicity of the interface as its primary source of abstraction and generality,” and furthermore, that the “description of an artifice in terms of its organization and functioning—its interface between inner and outer environments—is a major objective of invention and design activity.”<sup>59</sup> Design functions, therefore, as the mediative process between interior and exterior environments; it creates the artificial, and as such it is the *modus operandi* of a “science of the artificial.” One can, as a result, confront the logic of the artifact by way of the design process, a tactic that has important consequences for a semiotics of photography.

It is obvious that a ‘Science of Design’ cultivated under the title of ‘The Sciences of the Artificial’ is of a different disciplinary order from a ‘Science of Reading’ promulgated under the banner of the ‘Science of Signs.’ Once one moves beyond the “‘flat’ anthropological fact” of the photograph and into the corporate world of consumer manufacture, it seems that a semiotics of images must suffer sociological and epistemological (not to mention dimensional) mutations, at least in connection with the contemporary amateur photograph. One notes among primary sociological substitutions, that the world of literature gives way to the world of the engineer, and the analyst or writer is replaced by the engineer or designer. Sociological substitutions are accompanied by epistemological substitutions in the form of new operational categories (from which one would hope eventually to derive a new set of

descriptive procedures). One can trace these mutations most clearly across three areas that constitute a science of design: the logic of design, the shape of design and the representation of design—areas covered by Simon under the rubrics “optimization methods” and “hierarchy,” and in terms of ‘descriptive processes.’

While detailed discussion of the various facets of design as represented in the research and development of the Disc photographic system must remain the subject of another study, a preliminary description of the complex design parameters of Photographic Space is nevertheless in order on account of the insights it provides into the social construction of photographic vision. Note, for instance, that the Disc system was a logical outgrowth of optimization methods, and that ‘optimization’ was in fact used to describe the role of Systems Capability Equations in defining “the location of the ambient and flash system capability points in terms of the basic system design parameters.” Thus “the system capability equations,... together with the optimization technique... and the data on the utilization of photographic space, provide the designer with powerful tools to aid in the development of photographic systems and products which meet the needs of the picture-taker.”<sup>60</sup> Although the preceding summation is a poor substitute for a more detailed discussion of design logic, there is little doubt that optimization techniques form what Simon refers to as “the shape and organization of the design process” in the case of the Disc photographic system, a point which prompts one to consider the camera system in terms of design shape and thus in terms of artifact shape.<sup>61</sup>

The Disc photographic system is an exemplary instance of a complex hierarchic system, the design product of “discrete but interacting levels” or “*nearly decomposable systems*” of information that, *in toto*, addressed the need for a camera that “achieved the goals of expanded capability and increased user convenience”—specifically, a reduction in the “need for user decisions.”<sup>62</sup> These levels are, in fact, photographic information and vision spaces (see Figure 4) that correspond in organization to a succession of “Chinese boxes.”<sup>63</sup> The core space of the system (Photographic Space) maps camera-to-subject and luminance information. This space plots the basic parameters of photographic vision. The next level (the System Coverage Space) displays photographic systems capability information, and it provides technical data on particular camera systems. The third level, or System Utilization Space, maps sociological data to provide information on usage patterns. The fourth level, Motivation Space, serves as a utopian “theoretical frequency space” (a space perfectly adapted to the territorial range of Photographic Space), and is the final arbiter of photographic vision.<sup>64</sup> As a whole, this hierarchy of information levels reflects attempts to rationalize design processes in terms of complex

evolutionary processes, or, in other words, to simulate natural evolutionary systems by way of artificial systems.<sup>65</sup> The result, in the case of the Disc photographic system, is a teleological process directed to the implementation of “decision-free photography.”

Highly evolved photographic systems, as previously stated, tend to homogenize amateur photographic vision through the mass-production of a particular configuration of camera-functions. Three comments are suggested by the orchestration and management of social vision in the case of the Disc system of photography. First, it is obvious that ambient and artificial light function to homogenize visual space in terms of electromagnetic space. Second, this initial space is articulated and relativized through specific “limiting distances and light levels for which the system is capable of taking good pictures,” with the result that a two-dimensional map is generated in terms of reflected light—hence the information presented in the form of System Coverage Spaces.<sup>66</sup> It can therefore be argued that photography is perhaps best understood as a design organization that effects distinctive modulations on a natural homogeneous medium, and furthermore, that it is only in relation to two factors—ambient light (exposure) and subject-to-camera distance (focus)—that photographic vision emerges as a distinct social product of the kind displayed in Systems Utilization Spaces, with their emphases on “customer usage patterns” or “photographic behavior and photographic results.”<sup>67</sup>

Up to now, one could argue that nothing unusual has really been said. What is unusual, however, as Kodak designers were at pains to emphasize, is the quantification of Photographic Space. Quantification is tangentially connected to another unusual aspect of Photographic Space, foregrounded when one considers the Disc photographic system in terms of a complex Simonian artifact. This brings me to my third comment. The design process (the shape of design) replicates a theory of the social evolution of vision processes from relatively simple ‘natural’ to highly complex social processes, an evolutionary process ‘duplicated through the quantification of data.’ The design process also illustrates, in exemplary fashion, the ‘progressive’ corporate construction and mass-production of human vision in the late twentieth century. This deployment and management of amateur vision is, needless to say, also reproduced and

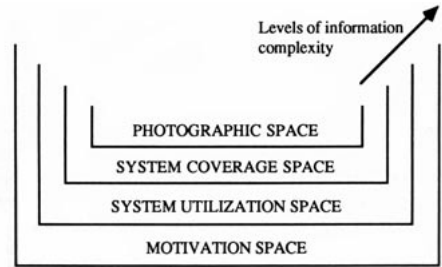


Figure 4. Information levels in the Disc photographic system

Reprinted courtesy of Eastman Kodak Company.  
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mass-produced through the identical structures of the camera systems or artifacts, which begin increasingly to resemble miniature computerized information processing units. Thus there appears to be a complex relationship between the shape of design and the corporate management of amateur photography. Camera systems considered as information processing units are a key element in this relationship.

Take, for example, the case of the Disc photographic system. The System Coverage Space can be considered, from the point of view of producing photographic vision, to function as the “inner environment” of the Disc system, while the System Utilization Space functions as its “outer environment.” On the other hand, the interface of the Disc design system is delimited by the System Capability Equations that operate, as a result, in a generic simulated environment (Photographic Space) of the type defined by Simon,<sup>68</sup> at the boundary of two hierarchically juxtaposed information spaces. The ‘real’ is, in this case, represented by what Rice and Faulkner refer to as a “projected disc utilization space.”<sup>69</sup> It is reasonable to conclude, therefore, that photographic vision is a highly complex design process for managing both amateur picture-taking activity and, more importantly, amateur photographic ‘identity’ through the technical configuration of camera systems. The result, an extraordinarily regularized management of amateur vision, extends into the realm of social identities—for it is through the act of picture-taking that individuals and groups can historically shape their social and personal identity to be presented, reproduced and confirmed in the circulation of individual photographs, albums and collections. While one must not focus too narrowly on this facet of control, to the exclusion of the wide latitude of use that amateurs might make of such systems, it is nevertheless evident that there are powerful imperatives at work in the design of large-volume camera systems of the Disc type, and that these artificial systems shape our social and visual environment in significant and often unforeseen ways. In conclusion, let us now return to the relationships between Photographic Space, camera-functions, identity composition and the lessons to be drawn from previous attempts to fashion a semiotics of photography.

The Kodak Disc system is without doubt an important product of a design prototype for the quantification and spatialization of photographic vision. What is foregrounded by this amateur system is the importance of the design process and, from a descriptive point of view, “the two modes of apprehending structures” (state descriptions and process descriptions). These modes are crucial for understanding complex systems because, in Simon’s words, “problem

solving requires continual translation between the state and process descriptions of the same complex reality.”<sup>70</sup> This translation is notably absent in the case of a conventional semiotics of photography. It is absent simply because process descriptions of such complex systems as the Disc photographic system cannot be derived from a consideration of the immanent structures of a corpus of photographs, or alternatively from the textual dislocations and displacements operating in the case of particular representational products (photographs, films and paintings, to name the most prominent). Rather, they must be developed in reference to the cognitive foundations and dynamics of representational technologies and the systems of representational technologies—foundations and dynamics most evident in the case of the design systems that shape the artificial world that in turn shapes our environment. Although the two are, of course, not necessarily historically inseparable (as we have seen in the case of the disc camera), semiotic theory has tended to follow a common-sense approach to photography, and to subjugate design and production under the cosmopolitan, experiential, and, one might now add, disciplinary sovereignties of photographs, immanent structures and esoteric state descriptions. It is therefore necessary to insist at this juncture that a semiotics of photography must, in Barthesian phraseology, attempt “to change the object itself” and move from the mere contemplation of planar products (however ontologically or narratologically complex and ambiguous, or socially confrontational) to address the logical hierarchies and descriptive complexities of corporate design processes of vision production in the late twentieth century, for these are becoming increasingly important sites for the management of contemporary social vision.

## Conclusion

*What is there to study besides the boundary sciences—those that govern the means and the task environment?*

Herbert A. Simon<sup>71</sup>

To address the question of a semiotics of photographic vision (considered as a product of Photographic Space) is not to address issues pertaining to a “study of the manner in which a photographic image functions from the standpoint of the sender (the photographer) and from the standpoint of the receiver.”<sup>72</sup> Nor does it, from the point of view of other more

iconoclastic semiotic approaches, propose new methodological tools that allow one to probe the affective dimensions of the “*Spectator’s* Photograph” or the photograph’s pragmatic epistemological status as trace and “image-act.”<sup>73</sup> Descriptions produced by a semiotic approach to the production of photographic vision are therefore of a different order from the ‘analytic’ semiological and structuralist, or ‘dislocative’ poststructuralist, interpretations of a “*science of reading*” that, in their more critical form, emerge from methodologies developed with a view to the “destruction” of the signifier or the sign.<sup>74</sup> They also differ from those that might emerge from a consideration of the locale of sign production that Barthes fleetingly identified as “Photography-according-to-the-Photographer.”<sup>75</sup>

In contrast, to begin to define this semiotics is to begin to address the design logic of contemporary photography, and to seek a new balance of methodological tools best suited to its description. It is to begin, if one borrows Barthes’s words, to address the semiotic conjunction of “two quite distinct procedures; one of a chemical order: the action of light on certain substances; the other of a physical order: the formation of the image through an optical device” at the level at which ‘the technology is spoken.’<sup>76</sup> A semiotics of photographic vision is destined, therefore, in the particular hierarchical context of Photographic Space, to describe the artificiality of its system and its process; for Photographic Space is not only system, but also a spatially encoded ‘process of design’ and therefore ‘meaning production.’ Photographic Space, as concretely expressed in the form of the Disc photographic system is, in other words, not only the site of a particular subjectivity (the amateur photographer); it is also the locale for its design production. Research and development of the Kodak Disc camera has provided us with a unique vista into some of the social and semiotic parameters of this novel quantified production and management space. However, much work remains to be done in this direction.

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## POSTSCRIPT

The process of acculturation in the visual arts, although liberal and cosmopolitan, is powerful and normative. Different traditions form artists that often operate in distinct ways and in terms of various media, pictorial aesthetics, disciplinary references and ideological constructions of identity. Postmodern pluralism has not produced a practice that is necessarily less normative or less conservative than other traditions since it makes use of the same media (even if they are intermingled or fused as in the case of installation art), similar pictorial traditions (the return to various conventional forms of realism and the use of canvas as a support in the 1980s), and it operates in terms of a common discipline, archive and definition of the artist which is tied to the work of art. Difference and innovation are sometimes the products of a displacement in viewpoint and not of a transformation in disciplinary practices as defined by an existing university system. If they are the products of a transformation, there is always the question of what is at stake, and how far or deep their effects may be traced in the short and long terms.

In *Photography and Semiotics* I raise questions concerning levels of organization in relation to photography's communication functions: At what level of organization can its communication functions be located? Is it at the level of the photograph? At the level of the photographer? Is it to be found at the level of design? Or should it be located in relation to all three levels? In the Foreword, I also link these questions to practice, by asking the following question: How does one build a practice in terms of all three levels? As I pointed out, these are basic questions, since all photographic practices seem to have been developed in relation to the photograph. However, if there are other grounds and contexts in which to develop alternative photographic practices, then they suggest that these practices would be built on different—perhaps radically different—models of an artifact's communication functions, and of what 'pictures' might be.

What are the spaces of technology? *Photography and Semiotics* provides an answer to this question through a consideration of the design of a new amateur camera. However, once one applies the question to the artifacts that surround us, one is often surprised by the range

and complexity of possible answers. For example, how can we apply this question to the interlocking systems of roads, railways, bridges, ships, automobiles, airplanes, telephone lines, computers, photographs, films and televisions, which serve to transport and/or connect people, images and ideas throughout the world? Or, how do we begin to map out what exists below the surfaces of these artifacts? How can we delineate the outer and inner spaces of technology and the connections that can be established between the two? Is it possible to develop a visual practice that negotiates between stylistic and functional domains? Can this practice promote a different 'kind' of politics of representation that is founded on a non-optical theory of vision, in the sense that it is not the conventional product of a lens coupled to image recording and storage technologies? If cameras manufactured by corporations are used by amateur and professional photographers, then the questions raised in the case of the Kodak Disc system are just as valid in the case of the 'artistic' use of cameras, even if their picture-making parameters are different. Again this raises the question of an alternative photographic practice that is based on a different conception of image production and storage devices. This practice should take account of the way in which photographic vision is manufactured and homogenized through the corporate management of vision and identity, and the technical configuration of camera systems that operate below the threshold of particular subject-matters. Finally, at what point does it make sense to drop the reference to photography altogether and opt for another term to describe this different kind of practice?

Can one consider the inner space of technology (the space that sustains technology's functional architectures and stylistic 'skins') as part of a larger cultural system: a multi-layered, inter-systemic, network of interfaces? What would its *lingua franca* be? One answer that resonates with Conceptual art's revolutionary, but still-born institutional critique, is connected to the concept of 'idea' as artistic medium. Could this *lingua franca* simply be the circulation of ideas in Gregory Bateson's sense of a "difference that makes a difference?" Here 'idea' invokes the presence and priorities of Conceptual art but only to the extent that this art movement privileged its use in the production of new kinds of artworks and meta-artworks. Once one steps outside of the immediate boundaries of the art object and into the world of the disciplinary productions of different configurations of knowledge, a visual artifact is defined by the interfaces that it establishes between inner and outer environments or forms of knowledge and disciplinary references. In this dimension of the world, the visual work 'is' the localization of a nexus of ideas in intersystems or economies of ideas.



The information and spatial levels in the Disc photographic system and the discussion of the various approaches to a semiotics of photography point to the responsibility to seek out other spaces, domains and practices in which ideas do not necessarily produce artworks or meta-artworks, but rather, visual and textual works that might exist uneasily within the university and its disciplinary matrix, or ultimately outside of this type of institution.



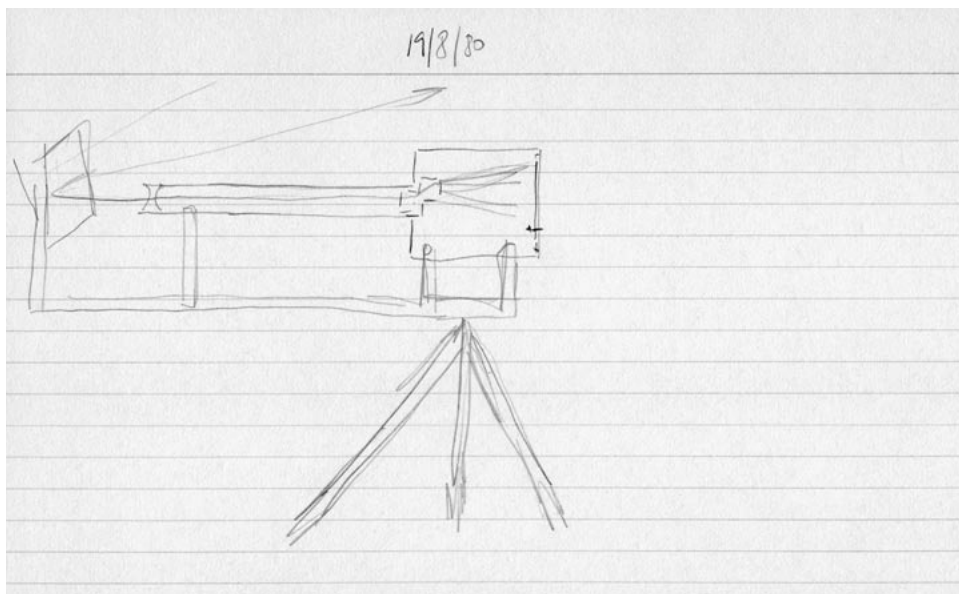
## 4. POSTPHOTOGRAPHY



## INTRODUCTION

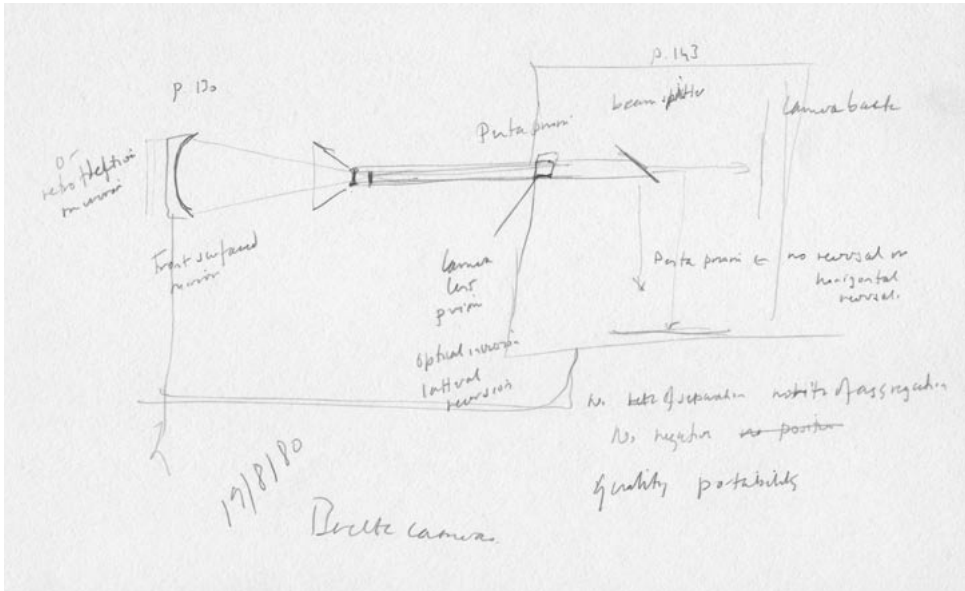
Upon what basis does one develop effective counter-practices in the visual arts and beyond, in relation to a broader culture? What does 'effective' mean in these cases? Is it simply a question of consequences or repercussions? Or does it have to do with range? How far does one's vision of change reach and what is its scope? Can its effects be measured only through a conjugation of consequences and range? But what does this mean in the case of photography? Should we be content to develop counter-practices within a specific disciplinary framework and in terms of the way existing histories have been plotted and laid out? In photography's case in the visual arts, this has to do with different histories of the subject, and the way photography is positioned in relation to other media—painting, sculpture, installation art, performance, new media, etc.

One can criticize the history of the visual arts by drawing attention to the way we look at a picture (by proposing different and unusual viewpoints). We can criticize this history by challenging traditional media on its own terms (by creating three-dimensional photographs or large-scale photographs of intimate subjects). Alternatively, we can offer other unknown or unappreciated subjects (images of various subcultures and their marginalized activities). We can also propose different ways of reading subjects (feminist, gay, postcolonial). Or one can try to reposition photography within an existing relationship or hierarchy of media (large-scale photographs that compete with painting in terms of subject and size or photographs that are sculptural or three-dimensional in form). These strategies produce different results depending on our choice of viewpoint (subject, reading, or photography's relationship to different media) and the direction in which we intend to proceed. However, if our initial options are limited to an existing history of subjects, and we proceed and measure the results of our activities in its terms, then we are limited to a particular dimension or arena of activity, even if the artifact we produce is a three-dimensional structure.



David Tomas, Sketches for new camera designs, 1980.

If we limit our activities to the exploration of 'new' kinds of subject-matter whose originality is measured by existing repertoires, then our contributions are restricted to widening these repertoires. These repertoires are not infinite. Their contents depend on the discipline that they serve: physics, astronomy, sociology, anthropology, etc. Importing new kinds of subject-matter does not automatically guarantee that the marriage between the new and old will produce a radically different subject; it might simply extend an existing repertoire. The question of what is new subject-matter in the visual arts is not as simple as it seems, since most pictures, even the most unconventional ones, operate within highly restrictive pictorial and thematic codes/norms. The impact of radical visual propositions depends, more often than not, on a fine sense of distance (not too close and not too far) from established and well-defined visual cues. In order for a radical proposition to have a significant impact in the visual arts, it has to be recognized as radical. This means that the artist as producer and the spectator as consumer must be able to place it in relation to, if not within, a common or congruent imaginary map of the discipline and its traditions.

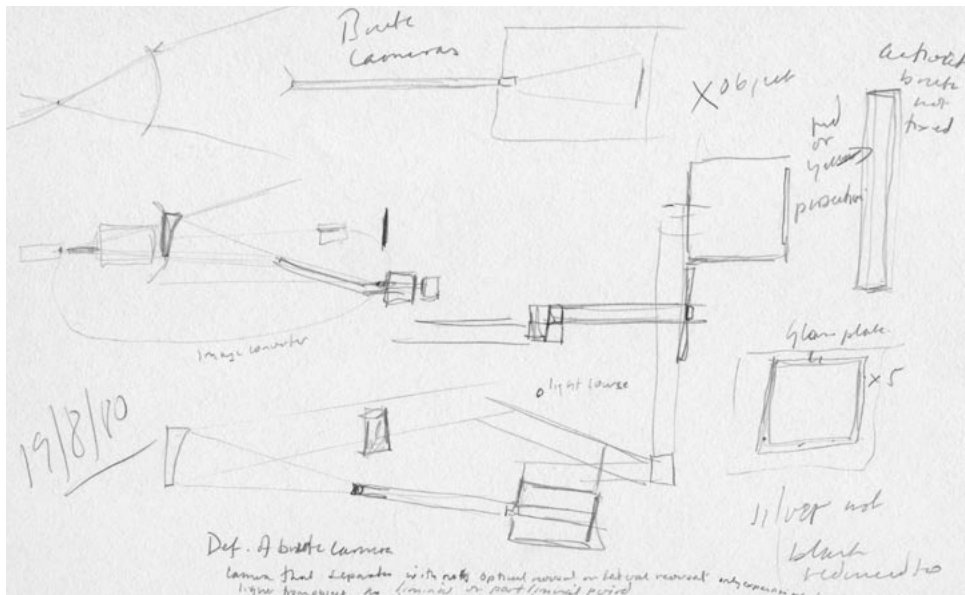


However, if we are interested in developing instrumentally transmitted or delivered counter-practices, we might be interested in looking at ways that the camera can be modified to operate under a different set of conditions. *Photography and Semiotics* suggests that this is certainly possible. One would only have to establish a different set of logical parameters and operating conditions for the research and development process. For instance, is it possible to imagine a camera form that would not relate to any existing designs, and what information or intuition would serve as the basic premise for the research to begin on this new kind of camera? Would the design process target the camera's traditional organization (black box, lens placed opposite a photosensitive material or its electronic equivalent), and how would they be modified (on the basis of optics, physics, camera form, or culture)?

In the meantime, existing cameras cover most conditions in which new subjects are produced in the visual arts, and there are no urgent reasons to opt for the lengthy and costly construction of new kinds of imaging technologies since most have been designed specifically in relation to common pictorial conventions that producers and consumers share in order to facilitate efficient communication. Any movement away from these conventions must be measured in

terms of existing subject-matter and the visual parameters that set the conditions for image reception. The relatively smooth transition from analogue to digital imaging technologies has taken place within well-established pictorial conventions. Even the wildest simulations are measured in terms of existing paradigms of naturalism and realism. As a consequence, questions relating to the reconstruction of analogue or digital cameras or to the development of new forms of lenses, storage devices, or recording devices that might produce radical translations or mutations in subjects and the way we read them, do not figure in the repertoire of counter-practices.

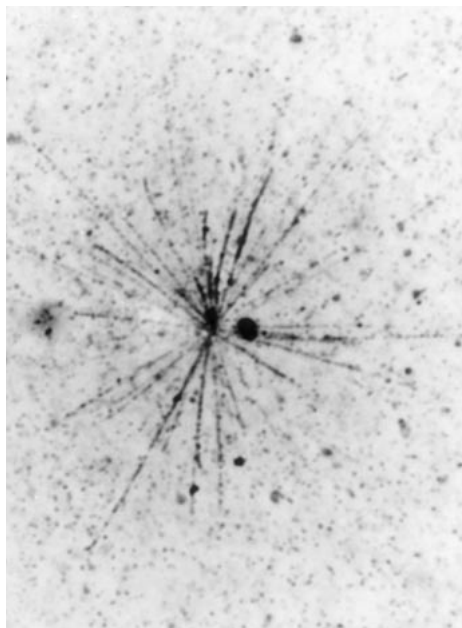
An answer to the question of what effect a counter-practice will have on a field of operations and how far it will extend, depends on one's viewpoint and position in a culture, and on one's relationship to a given subject repertoire. In each case, counter-practices will normally be defined in terms of existing subject repertoires and existing imaging technologies. Change operates through the introduction of new subject-matter or new imaging technologies, or a conjunction of both. However, truly radical change would challenge the coherence and cohesion of a discipline; and, as I have suggested in the case of the visual arts, most radical gestures are strategic and tactical in nature, and local in range. Here, subject-matter is often





tied to existing categories like the portrait, nude, landscape, cityscape, or still life. New subject-matter is often defined as a transformation, mutation or the reinvention of an existing pictorial category or convention. Conceptual art, for example, extended the repertoires of the portrait (Bruce Nauman's *Holograms (Making Faces)*, the nude (Vito Acconci's *Seed Bed*), the landscape (Douglas Huebler's *Location Pieces*), the industrial landscape (Bernd and Hilla Becher), and the cityscape (Joseph Kosuth's billboard works, Edward Ruscha's *Every Building on Sunset Strip*), as well as proposing new subjects (Robert Barry's invisible works, Hans Haacke's *Communication System-UPI* and *Proposal: Poll of MOMA Visitors*). Imaging technologies are often treated in similar terms, as the Polaroid SX-70 and the Disc photographic system designs suggest. Subjects and methods of working can be transformed through the introduction of new kinds of imaging technologies like the video camera in the 1970s, the computer in the 1980s, or the digital camera in the 1990s. However, it is surprising to note how the images produced by these new technologies are situated in relation to, or remain within, existing subject repertoires. Often they extend existing subject categories—as in the case of the treatment of the body in video art, or abstract representation in the case of computer-based animation and simulation. The implicit set of operating conditions that equates subject with specific pictorial traditions is conspicuously visible in the case of computing technologies and software programs because of the way the interfaces have been conceived and designed to operate like a paint palette or a drawing system.

Atomic and nuclear physics provide an interesting contrast to the question of imaging technology and subject-matter in the visual arts. In these disciplines, the unconventional subject-matter of elementary particle track photographs was produced by an innovative apparatus, as in the case of cloud and bubble chambers, or by new relationships between the natural world and photochemical emulsions. This novel category of picture was not only the product of existing knowledge, it emerged in relation to new interpretative frameworks and modes of reading whose intelligibility depended, in the first instance, on one's detailed understanding of given theoretical and experimental contexts. Transposing an elementary particle track photograph into an art context effectively strips it of its culture and its disciplinary framework to reduce it to a visual enigma or quaint aesthetic effect. The addition of information on the type of apparatus used, its theoretical and practical objectives, and significance in terms of experimental results can clarify its origins, nature and meaning. But this information puts pressure on the photograph's new context through the injection of foreign data that is rooted in a different context of production and set of pictorial rules and conventions.



Photomicrograph, Disintegration of Silver nucleus? Thirty-two tracks are observed to issue from the disintegrating nucleus. From Herbert Edwin Huntley, *Tracks of Ionizing Particles in Photographic Emulsions: A Survey of the Application of the Photographic Emulsion to the Study of Nuclear Particles*. Ph.D. Thesis, Department of Physics, University of the Witwatersrand, Johannesburg, January 1949.

Collection: D. Tomas.

Thus we return to the question of effective counter-practices in the visual arts and in a broader culture. What is their level and range of operation? Do we remain within the dimension of existing categories of subject-matter? Do we opt for the use of existing picture-making technologies in the sense of using them to produce conventional images? Do we tie the question of subject-matter to the use of specific imaging technologies (the domestic genre in the case of live WebCam Internet broadcasting)? Or do we look beyond these domains and relationships to others to provide us with a different basis for developing counter-practices? If we decide to go beyond the range of an existing discipline like the visual arts, we can pass through one or more of the nexus of disciplines that operate in a university in order to gain access to a larger cultural arena, where we will not be limited to existing image repertoires in the arts in order to guide our movement toward unconventional cultural spaces. But if we do so, we automatically reduce our audience until it might only consist of the solitary producer of the novel visual work.

A ritual of photography suggests that all photographic images are founded on a common system of classification and that this system might be associated with a fundamental myth of origins as presented in the first ten verses of the book of Genesis. In contrast to the earlier chapters, *From the Photograph to Postphotographic Practice: Toward a Postoptical Ecology of the Eye* attempts to develop a viewpoint and vocabulary that is suited to the production of visual works that are based on this different set of premises concerning subject-matter and pictorial logic. The chapter begins by setting out the parameters of the new approach by transposing the position developed in *The Ritual*

of *Photography, A Mechanism for Meaning: A Ritual and the Photographic Process* and *Toward an Anthropology of Sight: Ritual Performance and the Photographic Process*. It locates its subject in terms of a new approach (a postphotographic practice) and operating space: an alternative culture delineated with reference to photography's modes of production and its ritual structure and mythic logic. It proposes that this postphotographic practice is an effective and politically far-reaching counter-practice because it is developed in opposition to the authorial and deterministic foundations of all photographic images which are traced to photography's mythic and product-oriented logics.

The key elements of the old photographic model are inventoried:

- images are fixed in terms of tonal gradations between light and dark, over- and underexposure;
- there is a relationship between this classification system and the one that operates in the Judaeo-Christian myth of origins;
- the relationship points to common symbolic contents, cultural and transhistorical authorial functions;
- there are connections between this older model and the activities of rational or scientific man;
- the optical and perceptual hierarchies of difference between light and darkness and the role of light in the creation of photographs have produced a particular history of photography that sustains a distinct authorial presence.

Having set out the basic elements of the old model of photography, the chapter goes on to link the role of light to the creation of autonomous photographic images and argues that it is in terms of light and photography's capacity to separate appearances from substantive contexts, that photographs can enter the service of history. In this sense all photographs, both conventional and radical, are indissolubly tied to an original mythic content and authorial function. Thus, photography can be understood to be an antiquarian, as opposed to a creative, cultural activity. It is on the basis of these observations that a significant proposition can be formulated: Photography is a remarkable and triumphant product of an industrial culture inasmuch as it is the rational, technologically channelled equivalent for a mythic creation process, and because it provides a means for the operational transmutation of a mythic figure into a material/symbolic process.

How is it possible to develop an effective counter-practice, given this analysis of photography? The key resides in a different model of the relationship between organisms, artifacts and ideas. Beginning with a cybernetic model of the interconnections between organisms, machine systems and natural environments, there is a possibility to dissolve the distinctions between mind/body and culture/nature, and replace these dualisms with an ecologically integrated model of the circulation of ideas across biological and cultural boundaries and throughout a socio-environmental context. Any system would henceforth be defined in terms of operational goals, explanatory objectives, and interfaces between inner and outer environments. By inverting the relationship between product (photography's teleological objective) and process, one can find oneself in a position where context and processes become product. This shift displaces the notion of subject from one that is defined by the photographic frame to one that is defined by a set of explanatory objectives deployed in a matrix of contextually defining historical and cultural possibilities. Thus the chapter proposes a different kind of postphotographic practice that is able to account for its own historical and contemporary contexts of production. Once one accepts an ecological model of this type, the camera becomes a node in an expanding system of ideas concerning this picture-making process. These ideas and their pathways in space and time are a new dynamic form of subject-matter. Access to this subject-matter is through an act of negation that, in the case of the practice discussed throughout this book, consists of denying the subject/image's access to a photochemical surface. Although the act of negation is emblematic of the approach, there is no predetermined portal to this world. The chapter goes on to link this act to Friedrich Nietzsche's analysis of 'the use and abuse of history' and the delicate dynamics that he describes between the historical and unhistorical, or the role of thinking historically and forgetting or feeling unhistorically, in promoting the creative health of an individual or culture. It is on this basis that one can revive the idea of an 'oscillation' (as described in *For a Negative Practice of Photography*) between the historical (*postphotography*) and the unhistorical (*postphotography*).

The emergence of a new subject-matter takes place through the materialization of an act of negation that is triggered within a movement between an historical and an unhistorical consciousness. It is through this gesture (or a similar one) that one is transported into a world of ideational networks and operational cultures that are deployed throughout spatial, temporal, social, environmental and material contexts. Here, representation is conceived as a movement of ideas concerning the nature of imaging technologies and their cultural infrastructures throughout a cultural ecology of technology that ultimately links different artifacts together. Given different contexts and elements, postphotography is thus able to

redefine its culture and practice continuously. Finally, an ecological counter-practice of this kind eliminates the mythic and spatio-temporal *raison d'être* of traditional photographic images: The act of negation has generated a network of contexts that can be experienced from many different viewpoints, depending on one's position within the network. Finally, postphotography creates situations that exist both inside and outside of history inasmuch as they are context sensitive, site specific, metacontextual and metahistorical in the way that they operate in and across time and space.



#### 4.1 FROM THE PHOTOGRAPH TO POSTPHOTOGRAPHIC PRACTICE: TOWARD A POSTOPTICAL ECOLOGY OF THE EYE

Since 1839, Western culture has conditioned its constituents to see in terms of photographic images. That conditioning, however, has not been homogeneous. One has only to examine the discourses that permeate photography to become aware of the fissures continually disrupting its practice. Thus, one of the principal dichotomies that continues to influence the historical, practical and critical debates on the nature of photography involves its ‘objective’ versus its ‘subjective’ foundations. Is photography to be considered a scientific or an artistic tool? Are photographs factual or are they particularly complex fictions? As the history of these debates reveals, the answers to these questions are relative to the practical uses and the discursive formations instrumental to photographic activity. There is, however, another position which can be adopted in relation to photography’s historico-epistemological identity that has not yet been surveyed. This position can be identified through an exploration of an alternative culture as it pertains to photography’s modes of production. A culture of photography does not necessarily have to be defined in terms of the images that have come to embody much of its current historical and social value. Photography’s historico-epistemological identity can also be defined in terms of the cultural dimensions of its process of production—after all, photographs do not simply appear, but are produced by a complex transformational process which might also be impregnated with symbolic value.

In the following chapter, an alternative ‘postphotographic practice’ will be described, and its strategic/practical consequences will be considered. This photographic ‘counter-practice’ will be introduced through an examination of a correspondence between a visual classification system and the cultural priorities expressed by the Judaeo-Christian myth of origins as presented in the first ten verses of Genesis. The correspondence will then provide a point of departure for exposing the authorial and deterministic foundations of all photographic images. The remainder of the chapter will be devoted to developing a critique of the principal historical priority sustaining a ‘culture of photographic images’—the priority being an historico-epistemological fixation on the photograph as the most valued product of photographic activity. The critique will be based on a strategic inversion in the hierarchic binary system: product/process. In contrast to a haunting cultural fixation on images and the transcendental

determinism of current photographic practice, an outline for a systemic and process-oriented account of a postphotographic culture will be proposed. This alternative will be introduced by the description of a postphotographic practice organized in terms of an immanent postoptical and plural ecology of the eye. The development of this alternative to current photographic activity will be predicated on Friedrich Nietzsche's theory of the use-value of history and Gregory Bateson's critique of a transcendent non-ecological epistemology of Mind.

### God, Photography and Historical Determinism

Photographic subject/images are 'fixed' in terms of tonal gradations set between light and dark, or over- and underexposure.<sup>1</sup> They are therefore subject to a binary classification system composed of the elements 'light and dark,' with their inferential correlates 'presence and absence.' As with the Judaeo-Christian myth of creation, this photographic order is governed by an initial distinction between 'darkness' and 'light'—the two other terms, 'absence' and 'presence' only becoming marked in disjunctive association with their contrary terms ('light' in the case of 'absence' and 'darkness' in that of 'presence'). Both the photographic and the creation processes emphasize the primacy of ocular perception at the expense of the other four senses; both are mediated by a perceiving entity (man in the former instance and God in the latter); the process of naming is of particular importance in each case; and finally, both are unconcerned with the question of the origin or nature of matter.<sup>2</sup>

Since the second quarter of the nineteenth century, photographic media has used this dualistic principle of ordering, and has been the principal cultural technique for celebrating an ocular process of cognitive differentiation. Furthermore, the progressive social and cultural diffusion of photographic media during the interim (since photography's initial public unveiling in August, 1839), and the current omnipresence (and omniscience) of photographic products, has been achieved under the authority of a mobile and transcendent representation of the eye cast under the supervision of 'rational' or 'scientific' man.

Photographic technology is used optically to separate appearances from substantive contexts and permanently stabilize the resulting 'subject/images' by mechanical and chemical operations. The photographs that emerge from this process are mediated by a perceiving entity—the photographer—and embody another fundamental cultural distinction: they replicate the dichotomy between the word and its 'referent' in their differentiation between the subject/image and the subject photographed.



The similarities that can be traced between photography and the Judaeo-Christian myth of creation suggest common symbolic contents and cultural functions. Although there is no direct historical connection to be drawn between the two processes of creation, the similarities that exist imply a common cultural theme pertaining to the existence and normative functions of a perpetual trans-historical collective mythic/social presence—at the very least, a mediative authorial slot sustaining an optical apparatus: an eye.

The basic physiological structure of the biological eye, a photosensitive surface encased by a darkened chamber with an aperture, is replicated by the camera. Both systems articulate the same electromagnetic material. In each case, the construction of synthetic vision involves an extremely complicated process—either from a physiological or cultural point of view—and this complexity is compounded by the common cultural relations that have been forged between these two types of optical instruments.<sup>3</sup> These systems are not only sophisticated photochemical receptors for selective electromagnetic waves; the light they respond to is also suffused with cultural value and is intimately intertwined in their material/symbolic fabric.

The information contained in a photograph is defined by optical and perceptual hierarchies of difference. Photographs are governed by the action of light on darkness, and information emerges by way of luminiferous actions, such as those defined by photographic lenses which are designed to control light rather than its absence: darkness. Light is also the precondition of vision and as a consequence it is culturally valorized over darkness. Light thus becomes the unmarked (contextual) cultural field in which darkness becomes ‘marked.’<sup>4</sup>

Light is accorded positive value because it is a constructive cultural agent, and the common substantive medium that unites the biological eye of a given psycho-historical individual with the mechanical eye (a collective cultural artifact). Light is also the active element in the hierarchical binary system delimiting the relational poles of visual representation. For example, it is the medium of ‘action’ in terms of which the history of photography was and continues to be created, because cultural forms emerge from a light/dark continuum to be continuously and differentially fixed in terms of photographic surfaces. Given the intimate role of light in the process of biological vision and the cultural production of photographs, it is not surprising to discover that the dominant history of photography is the one defined in terms of ‘photographs’ and their ‘authors’—both contiguous mediums of cultural enlightenment.

## Photography: At the Service of History

The special position of photography in our culture is predicated on a unique form of contiguous/causal link that unites the photograph with its referent. This link is formed of light. Here it is worth recalling the words of Joseph Nicéphore Niépce: “The discovery I have made and which I call *Heliography*, consists in reproducing *spontaneously*, by the action of light, with gradations of tints from black to white, the images received in the camera obscura.”<sup>5</sup> The phrase “*spontaneously*, by the action of light” is indicative of a widespread cultural belief in the comparatively unmediated nature of a subject/image’s photographic process of optical and chemical inscription.<sup>6</sup> Light—both natural and artificial—is thus perceived as the custodian of ‘truth.’ As the medium for the transmission and inscription of fact, light acts as its own guarantor—seeing has become a cultural form of believing. Light also provides the contiguous connection which allows for the cultural ascription of an iconic correspondence between the photograph and its referent. This luminous mediation precipitates the cultural bias of a photograph’s factually ‘real’ nature, and the history of photography emerges as the product of the chemical fixing of light images. In contrast to mirror images, photographs are also historical because they are ‘fixed’ slices out of Time. Such images can therefore escape the chaos of an undifferentiated temporal reality and enter the differentiated (chronological) realm of historical time.<sup>7</sup> This explains one facet of the widespread cultural value that photographs have acquired in time: the displacement of an appearance from a substantive context and its ‘permanent’ fixation severs it from its ‘eco-system,’ which, if it were a mirror image, would define its spatial and temporal qualities. Photographs therefore have the capacity to enter the service of history at the expense of the prephotographic substantive context which initially served to coordinate the social and cultural conditions of their production. But the cultural connotations of light also resurrect the spectral presence of a mythic author. In fact, photography is mediated by a double authorial presence: a collective mythic figure and the individual photographer.

Photography represents a secularization and democratization of the creation myth—what Lady Elizabeth Eastlake referred to as “the craving, or rather necessity for cheap, prompt, and correct facts” was satisfied by photographic processes that valorized product over mode of production (as the 1888 Eastman Kodak slogan implied, “You press the button, we do the rest”).<sup>8</sup> Divine labour and its hand maiden, divine inspiration, became antiquated after the rise of mechanical reproduction, and artistic labour was relegated to a choice of subject (a question of framing) in a technological and industrial narrative that connects Eastman’s Kodak with the Polaroid

process. But this historical narrative has preserved the signs (photographs) of a transcendent creative act (the differentiation between darkness and light) and thus continues to authorize the mythic act of differentiation that inaugurated the privileging of light over darkness.

The culturally sanctioned, photographically fixed relationship between light and dark provides a powerful authoritative site for the condensation of an originary mythic value. With the development of each photograph the symbolic position and authority of a transcendent Mind is resurrected: clothed in difference, each individual photograph is an authorial function with a particular iconic inflection. Poised between darkness and light, myth and science, the figure of the ‘author’ takes the form of a transcendent being, and the product of his photographic activity fixes a mythic creation process—“And God ‘said’ . . . , And God ‘saw’ . . . , And God ‘called’ . . .” (my emphasis)—in terms of a fundamental classification system. Given this mythical phantom presence, all the historical uses of photography are excessively ‘antiquarian’—in Nietzsche’s sense of a celebration of preservation (stasis) as opposed to creativity (change)—because subject/images are defined (fixed) in terms of a fundamental perceptual/mythic opposition dominated by light.

The photographic process therefore represents a rational, technologically oriented model for a mythic creation process—its hegemonic role in the symbolic and material consciousness of the Occident is the result of the embodiment of a classification system that mediates fundamental questions such as those concerning the transcendent origins of light/dark, day/night, and the presence/absence of earthly things. Given these connections, photography represents the triumph of an industrial culture because it presents the remarkable solution of mechanizing and manufacturing ‘creation’ in terms of an extraordinary technological feat: the functional transmutation of a mythic figure into a material/symbolic production process.

Any attempt to subvert the remarkable cultural authority of photography’s postulated ‘mythic power’ and produce another ‘practice’ dislodged from this origin will be reflexively confronted by a grammar of seeing governed by principles echoing a transcendent authorial presence. If we now function under the historical illusion that we have replaced this mythic presence, we must not forget that we collectively take, make and read photographs, and therefore, in the words of Nietzsche, “we are not getting rid of God because we still believe in [his/our] grammar...”<sup>9</sup>

## Toward a Postphotographic Practice

At the root of the cultural epistemology governing our relationship to the natural environment are fundamental hierarchical dualities between Mind/Body and Culture/Nature. For example, Bateson has pointed out that the appropriation of a subject/object dichotomy through which we assume a transcendent position with regard to our natural world, and which also is enshrined in the Cartesian epistemological difference between Mind and Body, has resulted in a notion of Mind that has become synonymous with an individual consciousness. This cultural dichotomy, which also echoes the distinction God/Man, is projected into space and takes form in the substitutive contrasts Man/Nature and Culture/Nature.<sup>10</sup> Technology can then be used to control an autonomously conceived hostile eco-system (Nature). In this role, technology inevitably becomes the representation of an historical, progressive and competitive spirit reproducing the alienation and potentially fatal consequences of this cultural dichotomy.<sup>11</sup> This pathological, ecological condition can only be neutralized by redefining the boundaries of Mind so that it now corresponds to the movement and circulation of information or ideas across the classical boundaries of a biological body (a perceiving consciousness) and throughout a social and environmental context. The concept of Mind that emerges as a result of this redefinition of the contextual boundaries (Nature and Culture) is ecologically immanent rather than transcendent, and the Cartesian distinction between Mind/Body evaporates as traditional material and cultural boundaries are transformed through a broad ecological network of “pathways of information.”<sup>12</sup>

Photography, as previously noted, is also defined according to a number of binary distinctions (such as photograph/subject photographed, light/dark and product/process) which tend to (re)produce the dichotomy between Mind (a mythic authorial position signified by the photograph) and Body (a substantive prephotographic context). But the hierarchic nature of these distinctions implies the possibility of change—by way of a strategic inversion in one of the principal binary structures governing a photographic culture. The initial impetus for this strategic inversion comes from the desire to subvert the fundamental hierarchical relationship between the product of photographic activity and the process of its production. The result is a radically different and differing postphotographic practice predicated on an ecological approach to the production of images in a culture.

## Postphotographic Practice and a Postoptical Ecology of the Eye

Postphotography is based on the premise that critical and strategic transformations in the cultural dimensions of photographic modes of production lead to the development of alternative representational practices. Unlike a practice that valorizes a ‘culture of images,’ postphotography critically explores and transforms the historical/contemporary contexts that define the current production of images in a culture. But the practical operation of this premise necessitates a gestalt shift in the traditional figure/ground relationship of process/product in the history of photography. That shift is precipitated by a particular Nietzschean strategy of historical and cultural ‘forgetfulness’ that serves to subvert the traditional values attributed to products of conventional photographic activity. The possibility of a postphotographic practice is therefore predicated on the denial of the subject/image’s conventional cultural value.

Nietzsche argues that any attempt to effect change has to be linked to “the power of forgetting,” or “the capacity of feeling ‘unhistorically.’” This ‘unhistorical preconscious’ is a condition without conscience and knowledge, precipitated by the ability to forget. It lies at the roots of a happiness that Nietzsche identifies with “the will to live,” and hence, it functions in the service of life.<sup>13</sup> Given that the unhistorical is a pretext for change, Nietzsche maintains that “we must know the right time to forget as well as the right time to remember, and instinctively see when it is necessary to feel historically and when unhistorically.” Thus the historical and the unhistorical are “equally necessary to the health of an individual, a community, and a system of culture.”<sup>14</sup> As a product of this Nietzschean strategy, postphotography operates at the limits of ‘forgetfulness,’ and continuously oscillates between the historical *postphotography* and the unhistorical *postphotography*.

A strategic inversion in the process/product hierarchy at the root of current photographic activity clears the way for the development of an ecological approach to the production of images in a culture that involves a considerable widening of the boundaries that have traditionally served to define photography. Instead of seeking legitimation in terms of a narrow, institutionally sanctioned ‘history of photography,’ or defining itself as a history of subject/images and chemical processes, lens designs or camera forms, postphotographic practice seeks to trace the networks of its operational cultures conceived within broad spatial, temporal, social and environmental contexts. Thus, through the photographic process one can now enter the various worlds of its contexts of production. The result of this strategic inversion is the emergence of different and plural cultures of representation.

The cultural ecology of postphotographic practice is traversed by three formerly distinct cultural contexts—an environmental context (Nature), a social context (Culture), and an individual biological context (an individual psycho-historical biological entity). The ecosystem governing these previously distinct contexts defines the metacontextual characteristics of the photographic process—the cultures of its technology—conceived beyond the limitations of material form. These metacontextual characteristics are not only ecological in terms of the plurality of contexts that define them (a spatial axis), but they are also ecological along their temporal axis (a plurality of spatial contexts across time).

As previously noted, this ‘ecosystemic’ approach to photography emerges in the wake of ‘forgetting’ the grand narrative of a given subject/image culture (a culture of images) and thus creates the possibility of engaging the cultural realms of contextual and metacontextual image production. This is achieved by subverting the traditional hierarchy of product over process, through which a photographic culture of images has achieved sovereignty in the Occident. In Nietzschean terms, postphotographic practice is simultaneously historical and unhistorical, as the cultural context of photographs (the narrative history of subject/images) is absorbed by the ecosystem of contextually current processes of production. Because postphotographic practice operates through ever-present contexts of production, the results of strategic oscillations between the historical and unhistorical, and because of the perpetual recontextualization of its productive processes, postphotography continuously reproduces and redefines its culture—hence the pluralism of its cultural practice. This pluralistic counter-practice effects a number of important changes in the relative values accorded the traditional constituents of photography. For example, conventional photographs have no hegemonic role or position in a postphotographic culture because they no longer serve any of their traditional functions. In a recontextualized ecosystemic postphotographic practice, there is no need to escape a present so as to engage a future in order to serve a past. Photographs are no longer the necessary transcendental and decontextualized signifiers of photography. An eclipse of the transcendent functions of conventional photographs also precipitates the collapse of the photographer’s sovereign power. In this ecosystemic context—with its shattering of point of view by ever-present oscillations between the historical and the unhistorical—the traditional photographic author (and eye) are reduced to epiphenomenal mirroring effects—continuously differing, contextually defined iconic inflections.

The primary sense organ of photography is a mobile camera/eye which echoes the structure and instrumental functions of the human biological eye. Its lens, however, is made of glass,

its retina is a photosensitive surface and its optic nerve is a perceiving authorial consciousness. In contrast to this all-seeing cultural artifact, the postphotographic eye has no need of a lens and its darkened chamber (the mediums for the differentiation, focusing and fixing of point of view). Postphotography is no longer modelled on an optical consciousness operating independently of its material and symbolic contexts. Its mirror-like surfaces, which correspond to raw retinas, continuously provide pretexts to contextualize and metacontextualize systemic visual processes of production.

### **Conclusion: Postphotographic Practice and the End of History**

The ecological absorption of the photograph and the obsolescence of the photographer precipitate the cultural dissolution of the photographic eye. A postphotographic culture has no need for a witness—a transcendent and discriminating eye—to testify to the significance of events by organizing and fixing them according to a chronological code of before and after. With postphotography there is no longer a point of view, but a visual context; no longer an eye, but a continuous contextually interactive, visually educative process in which biological eyes reflexively commune with the fragments and possibilities of their cultures. With this negation of perspective and chronological codification, postphotographic practice calls into question the sovereignty of history. The inauguration of this postoptical practice will signal the beginning of the end of history as postphotography liberates the ‘fixed’ super-historical aspects of a culture of images and communicates the ‘eternal’ as the continuing.<sup>15</sup> Images will now float fragmented, incoherent, but free in a perceptual present, the continuous product of contextual oscillations between the unhistorical and the historical.

If photographic history was the product of a sovereign teleological perspective through which a visual event (or an aggregate of events) became optically and chemically fixed (from a chronological point of view), then postphotography is an illusory and postocular nowhere where everything is ‘becoming’ and already ‘is.’ It is the eternal (super-historical) present of Nietzsche’s “life and action”—the pulse of the unhistorical in the context of the use-value of the historical.<sup>16</sup> Postphotographic practice thus precipitates the dusk inaugurating the ‘posthistorical’—an era which has no need of a point of view and its optical products, visual facts or witnesses, and thus no need of Light.

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## POSTSCRIPT

As I previously noted in the Foreword to Section 2, Western cultures operate on the basis of a fundamental distinction between processes of production and products. The separation between imaging technology and image product is reinforced through distinct sets of physical and sensory attributes. A product's relative mobility in comparison with its site or context of exposure, or its process of manufacture, development, or the site(s) of its presentation serves as a further measure of this separation. These discontinuities have clearly determined the way the history of imaging technologies has been constituted. For distinct attributes and spatial and temporal discontinuities between sites of exposure, processes of production or manufacture and their products provide efficient readymade categories of classification which produce highly specialized knowledge (independent histories of photographic equipment, photochemistry, and photographic images). But they do so at the expense of more accurate ways of apprehending and appreciating the cultural and historical singularities of images, their modes of production and reproduction, and the interrelationships between their specialized cultures and those of other technologies of communication and transportation.

The visual and acoustic works produced between 1980 and 1998 were founded on the strategy of pointing a 35mm camera at the sun and taking an overexposed photograph. This gesture opened the way to an alternative photographic practice based on a reassessment of the hierarchical relationship between product and process. It was on the basis of the Experimental Photographic Structures, in particular the second and third ones, that this reassessment was readjusted to take account of a new interconnected vision of media history that was conceived as an intersystemic or networked field that could also be mapped in terms of ideational possibilities.

Within the trajectory traced by this book's chapters, postphotography does not pivot on the distinction between analogue and digital. It does not represent a newer, more powerful, more synthetic technology of representation. It represents, on the contrary, a completely different approach to the relationship between process and product in the case of picture-making technologies and, as such, it also represents a displacement in the parameters of a

picture-making process. The result is a different 'dimension' of picture, a dimension that is postoptical and ecological in form.

*From the Photograph to Postphotographic Practice: Toward a Postoptical Ecology of the Eye* was written from the point of view of the various Experimental Photographic Structures. Whereas the chapters concerning a ritual of photography and photographic space were written in tandem with them, this one was written 'in relation' to the installations and the earlier articles, where it served as a general theoretical statement that was implicitly tied to a clearly defined, visually based, counter-practice. Less formal and technically academic in tone, it addressed a reader who was closely allied to the art world of the 1980s, with its intimate engagements with poststructuralism and postmodernism. Ironically, the original version of this text was rejected by a leading art journal, possibly because of its theoretical tone; it was eventually published in a poststructuralist interdisciplinary literary journal. The original paper first proposed the terms 'postphotography' and 'posthistorical' to describe the kind of work that had emerged as a consequence of the original 1980 gesture of photographic negation.





## 5. BETWEEN MEDIA AND FIELDS OF KNOWLEDGE



## INTRODUCTION

Recently, there has been a revised interest in interdisciplinary practices in the arts. It appears that we are experiencing the dawn of a new knowledge and information-based democracy. Conversations, exchanges and projects proliferate around the idea of a breakdown in disciplinary barriers. Fertile exchanges are taking place between representatives of various academic disciplines. Exchanges are also taking place between these individuals and the representatives of community-based arts and industry-based research and development communities. These discussions have been accompanied by concerted attempts by individuals and institutions to bridge barriers between hard and soft disciplines such as engineering, the computing sciences, physics, anthropology and the visual arts, or high and low culture through the medium of new 'interface' disciplines such as Cultural Studies. University and industry-based scientists commune with artists who commune with anthropologists and cultural theorists. Curators, artists and academic theorists exchange roles under the sign of a new creative democracy in which everyone is able to understand and exchange information, and where this information will immediately be understood and acted upon in the same spirit. Knowledge is treated under these circumstances as a commodity with widespread public use and universal exchange values. The proliferation of these new forms of artistic democracy, in tandem with a revived interest in new technologies and the uncritical adoption of the computer as universal medium and picture-making machine, raises the possibility that this utopian interdisciplinary form of universalism is a consequence of reducing all forms of difference to a common denominator. If it is not that of a simple binary numerically-based logic, then it might be connected with this logic's ideology of the perfect universal currency in which to translate all natural and cultural things and processes. A shift in cultural value of visual works from the producer to the consumer can be traced to this commodification of knowledge and celebration of a new technocracy of the image, as well as a tendency to promote accessibility, readability and communality between works of art and the public. Knowledge is thus reduced to easily consumable forms in the visual arts when in fact it remains tied to complex cultures and systems of interpretation in the sciences. In this sense, a scientific photograph has little in common with an artistic photograph.

In theory, interdisciplinary practices tend to erode disciplines, to fracture and splinter them along known fault-lines, but also in unforeseen ways. They can also be cultivated through metadisciplines such as cybernetics and semiology, which are capable of uniting disciplines through global visions, powerful theories and efficient tools of analysis and synthesis. But these models invariably operate within a common academic frame of reference (the university) in the sense that they work from the inside and migrate to filial or neighbouring disciplines. Sometimes fragments seem to impact on an adjacent discipline, ricocheting off it into another one, but not before creating debris. If protagonists of interdisciplinarity aspire to a radical form of independence rooted in the destabilization of knowledge formations and not just in the simple exchange of ideas, then we can often see how easy it is for their practices to be co-opted by an ubiquitous form of disciplinarity, as the banner under which they are marshalled serves as a point of condensation for the formation of a metadiscipline.

It is much more difficult to imagine how knowledge can exist outside of the space that has determined and governed its content and form. Information must surreptitiously retain a discrete form of disciplinary identity, or enough indices, to remain minimally coherent in order to be recognized as non- or antidisciplinary. But information is also classified along disciplinary boundaries that are policed in terms of 'thresholds of recognition' that process and translate it into useless, useful or dangerous forms of knowledge. This might explain the absence until recently of observations concerning the first contact between peoples from the conventional subject-matter of disciplines like anthropology. The data upon which these observations could be constructed is just too volatile, unstable and ephemeral to be translated into knowledge. It is, moreover, a kind of information that does not belong to a culture's coherent system of beliefs and customs or its institutional formations. For it is in these unstable situations of initial contact that people who have chosen to represent a culture through design, or who are its unconscious or unwitting representatives, are placed in a position where habitual frames of reference are stressed, fragment or explode. Because of its instability and often traumatic origins, first contact data is difficult to process into useful knowledge. But this marginal category of event is of considerable importance for developing a broader cultural understanding of the limits of disciplines and the nature and functions of knowledge. Contact events often divulge interesting information on the risks and dangerous consequences of misrepresentation in relation to interpretations and exchanges between unknown peoples. They also provide information on the spatio-temporal consequences and dynamics produced by the rejection and ejection of artifacts, individuals and other immaterial cultural elements (such as concepts and ideas) from habitual frames of reference and domains of knowledge.



Can one produce works of art that operate according to a first contact type of logic and the risk that it generates? Is it possible to move between, or make contact with artistic and academic disciplines, even if they exist in a common university context, in a way that would highlight new unstable research spaces and the risks that they might embody in terms of knowledge and identity? What kind of information can exist in destabilized situations that might exist between, but also outside of, disciplines? Is it possible in these circumstances to conceive of a visual work as a research tool, or as an instrument, that might be used to pursue a new kind of contact activity?

The chapter in this section addresses these issues in a way that is different, yet related, to those that have already been encountered in previous sections. It proposes a return to picture-making practices, but under the sign of first contact, and in terms of a peculiar fusion of distinctive media and media spaces.

In *For a Negative Practice of Photography*, I tried to describe the situation that I had found myself in, both in relation to visual and academic activities. I described, in particular, the logic and effects of conceiving of visual and textual work that might be created in movement between disciplinary formations. I would now like to illustrate the ambiguous position of this practice and its associated ‘culture of risk’ through an interesting example that is worth re-presenting because of what it can teach us about ‘transdisciplinary’ contact spaces, incomplete cultural transformations, non-conventional or illegitimate forms of knowledge, and the role that various imaging and picture-making technologies have in creating both stable and unstable identities. It also illustrates in an interesting manner how imaging systems and technologies of observation like photography and anthropometry can be articulated together at a particular moment in time by a human body’s passage through space and time. This points to the importance, yet again, of adopting a relational model for media interaction and media history. In the absence of such a model, one drifts too easily toward compartmentalized histories and normative forms of knowledge. The example I present here points to the unusual significance of these kinds of in-between spaces.

In January 1857 a young male Andaman Islander was captured off South Reef Island, near the southern point of Interview Island in the Andaman Islands, after an altercation with the crew members of a British-led survey expedition in which three Andamanese were killed. The capture was considered rare enough for the subject to be transported back to Calcutta in the interests of acquiring further knowledge about the race of peoples who inhabited these isolated islands in the Bay of Bengal. The official and unofficial records of this individual’s capture



Contact between crew members of the steam vessel *Pluto* and Andamanese at South Reef Island, near the point of Interview Island, in 1857, as depicted in *Selections from the Records of the Government of India (Home Department)* in 1859. This image was also published in *The Illustrated London News*, March 27, 1858, p. 316

and journey allows one to accurately map his movements between spaces and systems of representation.

After his capture, the Andaman Islander was transported to the survey vessel. This new artificial and mobile context was both novel and distinct when compared to the islands. The vessel was much larger than a canoe, propelled by steam power, and housed a multi-ethnic crew. It was in this alternative environment that the Andaman Islander was soon clothed in a sailor's outfit. This initial representational transformation (island/semi-naked to ship/clothing) constituted an act of separation

from the islander's natural condition of relative nakedness and his passage to a new status of observational 'specimen.' The initial transformation was also registered through an adoption of new names: Jack or John Andaman.

In Calcutta, Jack was clothed in more suitable attire in order to be presented to the Governor and his wife. It was in Government House that Jack found himself before large mirrors, and where he was reported to have repeated "Jack! Jack!" as if to fix, through this repeated process of naming, his new-found identity and representational status.

Jack's subsequent transformation was by way of a mannikin in the shape of a cannibal whose ferocious presence was enhanced by savage howls. The leader of the Andaman expedition had decided to play a trick, with a ventriloquist friend, on a popular crowd that had gathered in front of his home in Calcutta as a result of the Andaman Islander's rare presence in the city. A mannikin was therefore fabricated in the popular image of the 'cannibal' inhabitants of these islands. The reference was deliberate, for it was in this

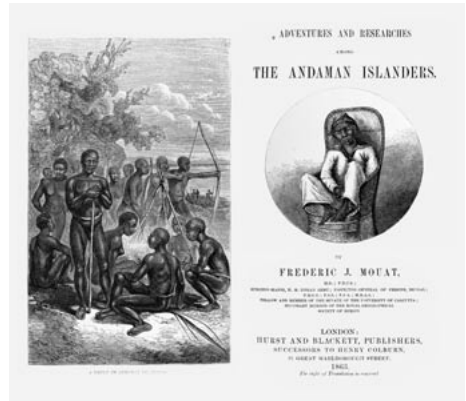


Frontispiece of *Selections from the Records of the Government of India (Home Department)*. A lithographic reproduction of an 'instantaneous' photograph of John ('Jack') Andaman.

mythic form of human representation that the Andamanese had been cast since the time of Marco Polo, possibly because of their tradition of carrying the skulls, finger and toe bones of recently deceased relatives on their bodies. It was also in this ferocious shape that Jack was codified and registered, in the popular Victorian imagination, as the native Andaman Islander in Sir Arthur Conan Doyle's *Sign of Four*.

Jack passed through two further transformations before his return to the Andaman Islands because of ill health. The first was photographic, and the second was anthropometric. In the first case, he was persuaded with difficulty to remove his clothes and pose in the original physical condition he was found in. In the second case, he was transposed into a series of anthropometric measurements that were taken on board the vessel which returned him to his homeland because of ill health. These measurements simply and efficiently reduced him to a series of anatomical labels and corresponding numbers that stood in for the living body that was then left on the shores of the Andaman Islands near the place of his capture.

Jack's passage through a series of representational sites of increasing abstraction points to the way bodies are transformed by different media and disciplines through processes of contact and observation, and through specialized configurations of knowledge. His passage links such transformations to issues of acculturation and identity. It also points to the existence of systems of representational technologies and domains of knowledge such as anthropology that used these technologies (photography, anthropometry) as modes of observation and methods of codifying knowledge in relation to human subjects that are considered to be cultural informants. But Jack's transformations were also incomplete because he was never totally assimilated or acculturated, but was returned to the Andaman Islands to disappear immediately beyond the reach of Western inscriptive devices and history. In this sense, he



Frontispiece and title-page of *Adventures and Researches Among the Andaman Islanders*, 1863. The frontispiece includes the figure of John Andaman that was first published in *Selections from the Records of the Government of India (Home Department)*. In contrast, the title page presents an intimate cameo-like portrait of John Andaman clothed in a sailor's outfit. This portrait was also published in *The Illustrated London News*, March 27, 1858, p. 316

occupies a place of suspended animation in history as so many informants were, after they had served similar disciplinary purposes.

The circumstances of Jack's capture and his early return to his homeland point to the existence of destabilized transcultural spaces between cultures. These spaces are generated by the activities that take place against the backdrop of a survey ship and an island, and by Jack's participation in an incomplete process of acculturation that pivots on Calcutta, one of the British Empire's major nineteenth century cities.

Jack's passage, his reactions and his ultimate fate point to the risks that exist in the spaces between cultures and in the often destabilized and dangerous situations of transcultural contact. His journey suggests that people who are literally caught between cultures, or who have, for one reason or another, not completed their journeys of assimilation and acculturation, run the risk of cultural exclusion and rejection. Depending on one's cultural viewpoint, they can often find themselves in dangerous or uncomfortable parallel worlds because they are still considered to be indigenous people, but are now also semi-acculturated or culturally 'impure.' However, in historical terms Jack only existed through a series of representational transformations, and therefore his voyage points to ways of travelling through space and time in the capsules of photographs, lithographs, etc., and the books that contain them.

Books and bodies mediate between disciplines, as do photographs and other representational technologies. And they can sometimes provide us with different perspectives on the way knowledge is structured, archived and disseminated. Although Jack's passage is encoded in books that are situated outside of normal academic disciplines, his movement is closely related to the disciplinary formation of anthropological knowledge as it passes through different stages from the fantastic (cannibal) to the pictorial (posed photograph) through to the numeric and experimentally verifiable (series of anthropometric measurements). And it is through this awareness of the different possibilities of travelling by way of imaging/picture-making technologies and media that I would like to return to the question of the academy, art and anthropology.

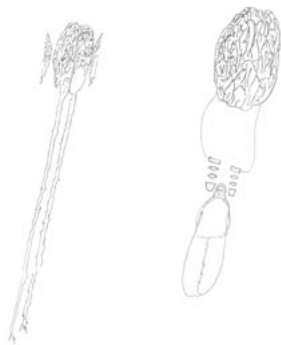
It seems to me that one could apply the notion of risk, as defined by Jack's movement through an incomplete system of representation and acculturation, to disciplines and one's movement between them. Although substantially different, the movement of a human body between the institutional and cultural spaces of art and anthropology can produce similar, albeit parallel, transcultural situations that are defined in terms of incomplete journeys, exclusion, rejection,

and the status of being caught in states of suspended animation. These situations can trigger questions about the nature and function of knowledge within and beyond the confines of particular disciplines and disciplinary alliances. If one were caught between disciplines, or if one were incompletely integrated into a discipline, then one would, as in Jack's case, become a person without fixed identity, and the information that one might produce under these circumstances would also be without fixed identity. Note, for example, that no information exists about Jack's perspective on his voyage in the official and unofficial accounts. Although the reason was probably language-based (he did not speak English), his inability to communicate in an efficient and detailed manner is also a sign of the complexity of this kind of transcultural condition, and of the difficulty for information to take a recognizable and coherent disciplinary form and identity. This lack can also produce an excess of non-verbal representational signs that are able, in turn, to escape the grasp and range of language, especially language in the service of specific disciplines.

Jack's voyage provides us with a different point of view on the question of disciplines and knowledge in the case of art and anthropology. I have already noted that both disciplines exist in relation to the academy—that is in relation to highly stabilized spaces, even if they are occasionally destabilized by new forms of thought, new methodologies and new subject-matter. What relationship is there between Jack's journey, art and anthropology, since the latter disciplines produce different types of products and operate in different economies (even if they might be situated within the same academic context)?

It seems to me that Jack's journey points to the risk of contact, of existing—even momentarily—between cultures, with their relatively stable material infrastructures and systems of belief. Correspondingly, what would it be like to exist between disciplines since they too are structured in terms of systems of belief, refined viewpoints, archives, and material infrastructures? Moreover, what would it be like to exist in an undisciplined space that was situated in relation to art and anthropology? What would it be like to exist in a space that is the product of the explosion or fragmentation of knowledge systems? Various answers have been presented throughout this book. *Mimesis and the Death of Difference in the Graphic Arts* provides a different, yet closely related and perhaps strangely apocalyptic, answer.

Earlier I noted that interdisciplinarity tends to erode disciplines, to fracture and splinter them along known fault-lines, but also in unforeseen ways. I also pointed to another interdisciplinary model based on metadisciplines such as cybernetics and semiology which are capable of uniting disciplines through global visions, powerful theories, and efficient



David Tomas, *At the Moment of Contact the Image is Split*, 2001. Lead and coloured pencils, photo-digital prints.

tools of analysis and synthesis. I argued that these models invariably operate within a disciplinary frame of reference in the sense that they work from the inside and migrate to other contexts. Moreover, I suggested that although protagonists of interdisciplinarity might aspire to a radical form of independence rooted in the destabilization of knowledge formations, we can often see how easy it is for these practitioners to be co-opted or absorbed by disciplines. Photographic and photo-digital drawing point to another form of interdisciplinarity that lies beyond the reach of these basic forms. It does not operate in relation to disciplines in the sense of promoting an exchange or migration of ideas. It operates in relation to media, fragments and debris that have often been ejected or dislodged from disciplinary frames of reference.

The approach described in *Mimesis and the Death of Difference in the Graphic Arts* acknowledges the presence of an authorial hand in the choice and placement of these elements, but points to the operation of defamiliarization in a space that cannot be effectively located in one or the other medium that has been used. The model used is similar to that of a survey vessel moving through unknown waters. This vessel moves through space and time, and through the use of known technologies a map is created, charting its constantly shifting position in relation to the unknown. Eventually it makes contact with an independent land mass and with its inhabitants. At the moment of contact, ship and island are destabilized. Habitual frames of cultural reference are stressed and undermined for both sets of peoples, as a transcultural space is triggered. Suddenly 'no one' is in absolute control of space, time, and culture, even if the actions that led up to the contact were planned and plotted out. Actions take place in a highly transitory space that is defined by culturally ejected bodies and artifacts, as power relations are momentarily equalized or neutralized. In cases of actual first contact, intercultural relations and intercultural

spaces soon stabilize along well demarcated lines ('savage,' 'native,' 'civilized,' 'primitive,' 'other,' 'God,' 'naked,' 'clothed,' etc.). But the transmedial space between photography and drawing suggests that there is the possibility of artificially creating such spaces in a way that preserves their impermanence and transcultural dimensions.



*Mimesis and the Death of Difference in the Graphic Arts* is an attempt to theorize this possibility on the basis of a series of photographic works by exploring the context and logic for the creation of visual works that are psychasthenic in nature. The chapter begins with a general discussion of the relationship between photography and drawing. It points to a marginal yet well documented historical

relationship that exists between the two technologies: the possibility to enlarge or reduce drawings by way of the photographic process. This use of photography is marginal in the sense that it has not been developed by artists engaged in advanced picture-making practices. The chapter argues that this use of photography and drawing cannot be rejected on the basis of the archaic technological nature of drawing. Nor does it represent a return to the past. It represents, on the contrary, a displacement of media and relocation or folding over of history with all the perceptual, aesthetic, and political effects that this displacement can have on the present. The chapter notes the special qualities produced by this relationship and the fact that this type of interaction can produce curious perceptual spaces. It argues that there is a common mechanism that operates in these cases, and that its mode of operation can shed light on the mechanisms behind cultural generativity, especially those operating in the spaces that might exist at the interface and interspace of technologies and practices. It also points to speculative knowledge concerning late twentieth century transformations of the body and representation. The chapter goes on to describe the nature of 'in-between' spaces in the case of photographed drawings, and notes the existence of a peculiar perceptual dislocation in this instance, pointing to the underlying logic of ambiguity that creates the conditions and sets the pace for perceptual



oscillation. It identifies this perceptual condition as a new form of *trompe-l'œil*—a single surface that is nevertheless an interspace composed of a compound of attributes from two different kinds of surfaces (photograph/drawing) and two respective ways of defining the world (photography/drawing). It is on this basis that the chapter goes on to argue that there is a strange lack of substance in these photo/graphic representations, and that they function on the basis of an interesting case of mimicry due to their close relationship to strategies of disguise and camouflage. The chapter turns to Roger Caillois's theory of psychasthenia because of its analysis of how mimicry is used in the animal world. The chapter appropriates the theory as a means of shedding light on the mechanisms that operate

in the case of photo/graphic drawings, and also advances a catalogue of gains and losses in the mimetic relationship between these media. Included in this catalogue is the 'death' of the drawing, the idea of existing beyond representation, the death of difference and even of 'representation' itself.

*The discussion concerning John (Jack) Andaman's voyage to Calcutta and its relationship to in-between practices, disciplines and risk was originally published in David Tomas, "Une pratique entre les disciplines: risques et enjeux," LA MÉMOIRE—LE VIRUS—LE RISQUE: Actes des tables rondes du 10<sup>e</sup> anniversaire de la Galerie B-312, (Montréal: Galerie B-312, 2003), 44–46.*



## 5.1 MIMESIS AND THE DEATH OF DIFFERENCE IN THE GRAPHIC ARTS

*Why write, if not in the name of an impossible speech?*

Michel de Certeau <sup>1</sup>

The pencil is a marginal technology in the pantheon of art technologies and in the history of modernism. To this day, it is associated with the world of the artisan, and with antiquarian practices of the hand.<sup>2</sup> To draw, as its semantic field suggests, includes such actions as to pull or haul, to carry along, and to change the shape of and/or represent in line. Its roots can be traced to the Old English word *dragan* (akin to) and to the Greek word *trekhein* (to run).

The sensuality of a practice—a certain primitive “know-how”<sup>3</sup>—that unites eye, hand and pencil in a common activity is a personal, private and tactile experience: the contact and pressure between graphite and paper whereby friction and texture engender the quality and status of a particular mark. In exceptional circumstances (one thinks of Michelangelo’s drawings of the crucifixion) these marks can become, to use Roland Barthes’s words, ‘grainy’ with a certain “materiality of the body speaking its mother tongue.”<sup>4</sup>

Since the second quarter of the nineteenth century this practice has existed in the shadows of a powerful new mode of pictorial reproduction: photography. Within fifty years of its first public appearance in 1839, photography had democratized the production of mimetic images through the introduction of easy-to-use cameras and efficient manufacturing processes.<sup>5</sup> However, this democratization was not achieved without a price, for a new relationship between the senses—a new way of ‘making the world’—emerged in its wake. In Walter Benjamin’s incomparable phrase: “For the first time in the process of pictorial reproduction, photography freed the hand of the most important artistic functions which henceforth devolved only upon the eye looking into a lens.”<sup>6</sup>

While a drawing is commonly perceived to be a delicate creation, the unique register of a cultured touch, the photograph is most often described as a mechanical product, its register

that of a mechanical puncture (a mechanical analogue of the Barthesian *punctum*) produced by the pressure of a finger on a button. Photography's touch (the touch of light) is therefore mediated by a pressure which is mechanically transformed or encoded into a slice—a cut—resulting in a discontinuity, a difference, a photograph. The populist, anti-artisan, indeed post-artisan impulses of this humble action were brilliantly encapsulated in Kodak's 1888 slogan, "You press the button, we do the rest." Clearly, photography has done more than just challenge and usurp the speed and dexterity of the hand, it has refashioned the hand's previous functions in the image of the eye. It has mechanized the hand's touch and rendered obsolete its culture and knowledge, in the name of an industrialization of taste. As Edwin H. Land remarked in describing the Polaroid process:

By making it possible for the photographer to observe his work and his subject matter simultaneously, and by removing most of the manipulative barriers between the photographer and the photograph, it is hoped that many of the satisfactions of working in the early arts can be brought to a new group of photographers.<sup>7</sup>

Hence the Polaroid process marks a second stage (after Kodak's 1888 campaign) in the industrialization and democratization of the draftsman. In consequence, every photograph is a testimonial to the mass-production of the human eye and the transformation of the hand into an optical sense organ. It is not surprising, given this transformation, that manual drawing has been relegated to the margins of representational practices.

However, during photography's initial period of development and expansion, there was considerable discursive interaction between the two technologies (as the roots of the word "photography" suggest).<sup>8</sup> At the same time, the first drawings, prints and paintings were reduced in scale and multiplied by means of photography. The cultural impact of using this medium to reproduce works of art, so as to increase their portability and circulation, is now history.

In his pioneering text, *The Pencil of Nature* (1844), William Henry Fox Talbot drew attention to the use of photography as an important means of reproducing works of art:

All kinds of engravings may be copied by photographic means; and this application of the art is a very important one, not only as producing in general nearly fac-simile copies, but because it enables us at pleasure to alter the scale, and to make the copies as much larger or smaller than the originals as we may desire.<sup>9</sup>

Moreover, in relation to the reproduction of old master drawings, he pointed out that they could be “preserved from loss” as well as “multiplied to any extent.”<sup>10</sup> The theoretical implications of these observations remained dormant for almost one hundred years, until Benjamin published “The Work of Art in the Age of Mechanical Reproduction.” This essay, more than any other, laid the critical groundwork for understanding the impact of new media, such as photography and film, on the history of Western perception.

Benjamin’s now classic comments and observations, especially those concerning altered sense ratios and the changing relationship between an original work of art and its reproduction, bring to mind Marshall McLuhan’s famous dictums that “the ‘message’ of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs,” and further, that the “effect of the medium is made strong and intense just because it is given another medium as ‘content.’”<sup>11</sup>

However, another facet of the history of Western perception that, to my knowledge, has not been considered in as much detail as the photographic reduction of works of art, is the enlargement of a drawing to the size of a painting. This phenomenon is worth investigating on two counts. The first is a point of clarification.

In an era of powerful computer-based imaging systems (the latest of which, virtual reality technology, is said to pose a threat to the autonomy of the human body),<sup>12</sup> to resurrect manual drawing is to engage in a highly idiosyncratic and anachronistic activity. While a return to such practices of the hand might be considered retrograde, I hope to demonstrate, on the contrary, that drawing is of special interest when used in conjunction with photography. For example, it is worth immediately pointing out that under such conditions, drawing cannot be considered as representing a simple return to archaic origins (the hand, manual labour, talent, genius, etc.) since mechanical reproduction and photochemical processing intervene in the name of modernity. Nor can it be dismissed as a nostalgic gesture in the context of rapid technological change, without a detailed consideration of its relationship to photography, modernity, postmodernity and current debates on the body and representation.

The second point worth investigating is this: unusual combinations of media often generate curious perceptual spaces. Such is the case, as we shall see, with the photographic acculturation of drawing, where a number of complicated perceptual effects can be traced back to a common mechanism. Information on this mechanism can shed light on the nature of cultural generativity (hybridity, ‘in-betweenness,’ third spaces) at the interface/interspace of

technologies, pictorial practices and images.<sup>13</sup> It can also provide an interesting perspective on late twentieth century transformations of the body and representation.

### Representation in ‘In-Between’ Spaces

Can one link drawing and photography in a way that would render the former more powerful and flexible—that would distance and estrange its preciousness—through photographic reproduction? Can one blunt photography’s referential thrust so that an image may take on a different register through the injection of scale and the bringing into focus of a perverse vision hiding in its depths? Indeed, what happens to the idea of representation when two technologies interpenetrate and their opposing spatial/temporal practices are saturated to the point of mutation; when the different grains of a photograph and drawing are fused at a particular threshold of magnification and a solitary line or tonal field attains a palpable physical presence, exposing an optical tactility?<sup>14</sup> Finally, can such a mutation generate other more powerful spaces—spaces that might fulfill in their own way a widely voiced desire to create new cultural possibilities along the lines of what McLuhan has referred to as altered “sense ratios or patterns of perception,”<sup>15</sup> while at the same time reaching beyond the limits of signification?

One has only to photograph a drawing and magnify it to a certain threshold of visibility to see that such a procedure can indeed result in a peculiar perceptual dislocation. Under these conditions, the notion of ‘embodiment’ underlying the photograph’s status as mimetic object is no longer of use in discriminating between the products of these two modes of representation. Are we looking at a drawing or a photograph? Do we recognize it as a photograph or drawing? Which mode of production gives ‘form’ to the other as ‘content’? Embodiment does not, in this either/or sense, ultimately reside in a specific image, symbol or medium; it oscillates as a “*floating signifier*”<sup>16</sup> between physiognomic qualities which give form to representation (photographic or graphic representation). Such qualities as texture and surface have either emerged into physical presence through magnification (as in the case of the drawing) or have attained a high degree of transparency (as in the case of the photograph). Cognition is destabilized under these conditions by an ambiguity that confuses vision at the levels of perception, spatial location or point in time (because these qualities are either indistinguishable at first sight or one is foregrounded at the expense of the other). It is this logic of ambiguity that creates the conditions and sets the pace for perceptual oscillation.

### A New Kind of *Trompe-l'œil*

Although we might know the direction of acculturation, it is of little use in grounding our vision since optical magnification has had the effect of propelling the act of looking into an interspace which has been opened up—brought to a threshold of visibility—in between domains, practices, and bodies of knowledge. However, this interspace functions as a ‘vision trap,’ for it does and does not exist, depending on one’s level of perception, spatial location or length of engagement with the given surface. Since there is no discernible perceptual distance between the photograph’s and drawing’s two-dimensional surfaces, they appear to be perfectly fused, thus eliminating the ‘place’ for this kind of space. This exclusion is no doubt reinforced by additional information—when, for example, we realize that we are perceiving the representation of a representation, we experience a significant perceptual shift, which deflects photography’s ability to transcend its physical bounds in the name of its truth-value and indexical authority. In its place, and in the place of an interspace, we engage in a direct dialogue with a single surface—which is, however, a compound of attributes from two different kinds of surfaces and two respective ways of defining the world. At this point, additional information provides the means to discriminate between attributes, surfaces and ways of defining the world. This ability to discriminate, resurrects in turn, the possibility of an interspace. Hence, to enlarge a drawing photographically is to engage in an age-old masquerade—that of the *trompe-l'œil*—a mode of representation that has traditionally pitted hand and eye in a duel of skill and deception. But, as we have seen, the terms (if not the logic) of the deception have changed.

It is not surprising that these ‘hybrid’ drawings or ‘hybrid’ photographs (the confusion is structural) are characterized by a strange lack of substance in relation to representation. Nor is it surprising that we should find this deficiency to have been generated by a primordial artifice—‘mimicry,’ with its paradoxical play of original and copy—since this condition appears to have been conjured up by a deceptive incantation: are we looking at a drawing that has been disguised as a photograph or a photograph disguised as a drawing? A simple trick or a complex artifice? The answer is both. And it is precisely this ambiguity between deception and contrivance which sets the tone for a common, if perverse, exchange between spectator and work of art. As Brian O’Doherty has pointed out, “The flow of energy between concepts of space articulated through the artwork and the space we occupy is one of the basic and least understood forces in modernism.”<sup>17</sup> If this is correct, then there is additional reason to pay attention to this mode of photographic acculturation, because it represents

one of the more subtle examples of perceptual dislocation, through the interpenetration of radically different spatial practices.

### Blurring Figure and Ground, Personality and Space

In an unusual paper on mimesis and legendary psychasthenia, Roger Caillois drew attention to the phenomenon of mimicry in the insect world, concluding, on the basis of a number of examples, that it could not constitute a mechanism of defense so much as a “*luxury* and even a dangerous luxury.”<sup>18</sup> The ‘danger’ refers to the fact that an ambiguous visual status—in relation to the surrounding environment or a similarity in form and colouration with another insect—could lead to death through a figure/ground confusion, as in the case of a predator mistaking the mimicker for the mimicked insect. However, it was precisely this kind of perceptual confusion that led Caillois to propose a number of radical observations on the psychopathology of social space.<sup>19</sup>

On the basis of observations, Caillois noted similarities between mimicry and sympathetic magic (“according to which like produces like and upon which all incantational practice is more or less based”), which led to the formulation of a rather unusual definition of mimicry: “*an incantation fixed at its culminating point* and having caught the sorcerer in his own trap.” However, Caillois drew back from the thrust of his definition with the remark that a “recourse to the magical tendency” in what he described as “the search for the similar” could only “be an initial approximation.” He suggested, instead, that this “search” might constitute “a means, if not an intermediate stage” culminating in a final more radical stage: a strange “disturbance in the perception of space” created by an organism’s almost perfect “*assimilation to [its] surroundings*.”<sup>20</sup> This idea allowed Caillois to link mimicry, sympathetic magic and psychopathology by way of a common perceptual condition. On the one hand, he traced this disturbance directly to the foundations of vision, given that space can both be “perceived and represented.” On the other hand, it was rooted in the instincts: “Alongside the instinct of self-preservation, which in some way orients the creature toward life, there is generally speaking a sort of *instinct of renunciation* that orients it toward a mode of reduced existence.” To this condition of “*depersonalization by assimilation to space*” or, inversely, a “*generalization of space* at the expense of the individual” he gave the name “psychasthenia,” specifically, “legendary psychasthenia”:

The feeling of personality, considered as the organism's feeling of distinction from its surroundings, of the connection between consciousness and a particular point in space, cannot fail under these conditions to be seriously undermined; one then enters into the psychology of psychasthenia, and more specifically of *legendary psychasthenia*, if we agree to use this name for the disturbance in the above relations between personality and space.<sup>21</sup>

### Mimicry: Transformation of the Original

Caillois's theory of mimicry, in particular his observations on mimicry's relationship to the psychopathology of social space, can shed light on the mechanism that underlies the *trompe-l'œil* effects of photographically acculturated drawings. For instance, it is clear that we are in the presence of a form of mimicry when one medium presents itself in the guise of another to a degree where it is very difficult to distinguish the former from the latter on the basis of perception alone (that is, without additional spatial investigation).

It is clear that the photograph mimics the drawing in the present case, since it has successfully rid itself of its own characteristics and adopted the latter's visual attributes. Hence, what we see 'at first sight' when we look at the photograph is a drawing because that is what is presented to our eyes. In other words, we don't see the photograph because of the drawing. (This is not the same thing as apprehending a photograph in terms of any special relationship that it might have with 'the real' simply because it has successfully disguised itself in the form of another medium.) Finally, it is important to note a subtle disturbance in the relationship between perception and space which is only registered at the moment when we realize that what we are looking at is not a drawing but a photograph. At this moment we are witness to the 'death' of the drawing (corresponding to the dislocation of a tangible site of embodiment) and its instantaneous transformation into a (photographic) representation.

However, according to mimetic logic, the photograph can never be completely separated from the drawing since the two are consolidated according to 'morphology and colouration.' Since the drawing has died (lost its physical presence) as a result of having been identified as a photographic illusion, one can argue that the photograph has simultaneously been unmasked—it has emerged into physical presence to take on its identity as photograph. At the same time, in a profound sense, the photograph remains in a torpid, devitalized limbo. The reasons for this malaise, and its consequences for the relationship between space and

perception, can be traced to the gains and losses generated by this play of mimicry. But more specifically, what has the photograph gained by disguising itself as a drawing, and what does it lose in regaining its identity?

If we transpose Caillois's comments to the present case, mimicry would be the product of an "*instinct of renunciation* that orients [the photograph] toward a mode of reduced existence"<sup>22</sup>—what Claude Lévi-Strauss refers to as a kind of "*zero symbolic value*... marking the necessity of a supplementary symbolic content over and above that which the signified already contains."<sup>23</sup> What does the photograph contain at the level of its signified? It contains (and this is certainly the crucial gain in this mimetic play) a maximum 'presence' of the drawing, which is obviously a complete deception since the drawing is not there. Another way to describe this deception is in negative terms: an excessive gain in signification—a surplus of absence—has been achieved at a tremendous loss in the photograph's own physical presence. Or, in Caillois's language, there has been a "depersonalization [of the photograph] by assimilation to [a given graphic] space."<sup>24</sup> Inversely, the drawing has gained historical currency through an increase in scale and visibility, but again, only at the cost of its own presence, since its exaggerated size has been achieved through its transformation into a photograph. A surplus of absence has become the condition for embodiment; its oscillation between qualities becomes a signifier of its presence.

### Death by Mimetic Assimilation

Having catalogued the losses suffered by photography in this play of deception, are there any gains? At first glance, as we have seen, a photograph gains the qualities of a drawing—its sensuality, immediacy, singularity and fragility, along with its texture and surface. In other words, it has managed to appropriate another era's practice and knowledge, and in so doing has also managed to present itself as the product of another sensorial regime. Thus mimicry propels the photograph 'beyond representation'; it now exists beyond itself, in the morphological and colourational guise of a drawing, just as the drawing also exists beyond itself, since it is mimicking another medium in order to transcend its physical limitations.

Caillois provides us with a good idea of what 'being beyond representation' might entail in these cases when he turns his attention to the way space is rearticulated through a schizophrenic experience of self and place:



To these dispossessed souls, space seems to be a devouring force. Space pursues them, encircles them, digests them in a gigantic phagocytosis. It ends by replacing them. Then the body separates itself from thought, the individual breaks the boundary of his skin and occupies the other side of his senses. He tries to look at *himself* from any point whatever in space. He feels himself becoming space, *dark space where things cannot be put*. He is similar, not similar to something, but just *similar*. And he invents spaces of which he is “the convulsive possession.”<sup>25</sup>

There may be no better description of the perceptual and spatial consequences of photographic mimicry. What we are witnessing in Caillois’s portrayal of the space of schizophrenia is death (of a consciousness, an individual, an identity, a site of difference) by mimetic assimilation; a death that is signed, as it were, in a perceptual contract. But this is no simple death; as Caillois suggests, it is the necessary stage in the birth of another ‘purer’ space—not a hybrid or third space as currently understood, because this new space cannot exist outside of the system of logic which has made its existence possible.<sup>26</sup> One cannot speak of this other space in physical terms—of object and place—since, according to mimetic logic, the two have fused. In fact, Caillois tells us that this logic is the precondition for a new form of inertia no longer cognizant of “consciousness or feeling.”<sup>27</sup> Thus, as consciousness has vacated the body, presence has vacated the drawing and photograph. In its place we find a space without qualities, a space without differentiating intelligence. With this space we have reached a perceptual limit where difference mutates into pure similarity, presence into pure absence.

### The Sorcerer Caught in His Own Trap

However, we have already noted that the interspace is animated—rendered minimally intelligible—by a subtle disturbance created by an absence oscillating perversely between the visual attributes of opposing modes of representation: Is this a drawing or is this a photograph? Insofar as we engage in this play of mimicry, and insofar as we are drawn into its web of deception, we oscillate with this absence, transfixed by the proximity of a void, as if under the spell of a magical formula. Such is the final frontier of mimesis, inasmuch as it exists at the very edge of its extinction.

I would like to make two concluding observations in connection with this frontier. First, it is in terms of this limit—in terms of the death of difference—that one must begin to redefine the role of drawing today, since this frontier has not only been reached at its expense (the

expense of a mimetic other), but the play of deception which has brought this frontier into view has radically recontextualized drawing's position in the history of representation. Second, if one were to extrapolate a politics of cultural generativity from this play of mimicry, it would have to be rooted in the death of representation itself—signalled most poignantly by the eclipse of the “sorcerer [caught] in his own trap.”<sup>28</sup> These deaths are perhaps the only ways to account for the shimmering stillness that saturates this kind of mimetic surface with the constant presence of an absence. And in witnessing the sorcerer's death every time we engage this surface, can it be that we are also witness to our own deaths ‘beyond representation’?

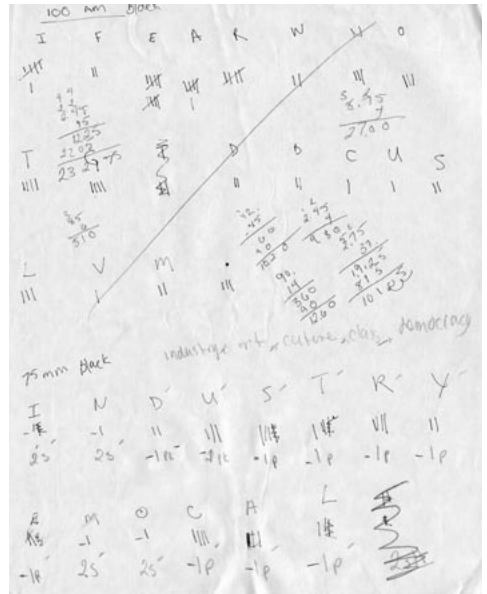
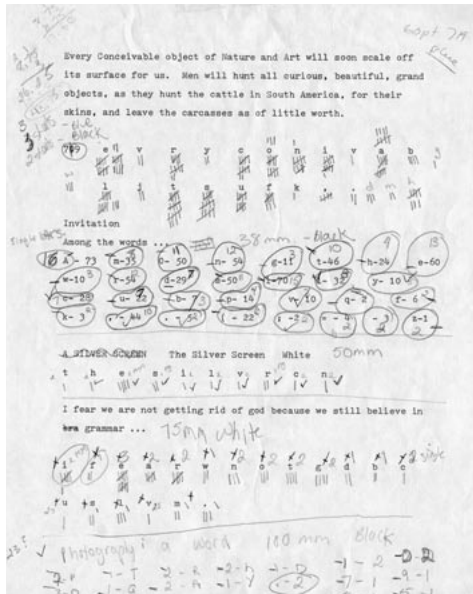
As Michel de Certeau writes in “The Unnamable”:

There is nevertheless a first and last coincidence of dying, believing, and speaking. In fact, all through my life, I can ultimately only *believe* in my death, if “believing” designates a relation to *the other* that precedes me and is constantly occurring. There is nothing so “other” as my death, the index of all alterity. But there is also nothing that makes clearer the place from which I can say my desire for the other; nothing that makes clearer my gratitude for being received—without having any guarantee or goods to offer—into the powerless language of my expectation of the other; nothing therefore defines more exactly than my death what *speaking* is.<sup>29</sup>

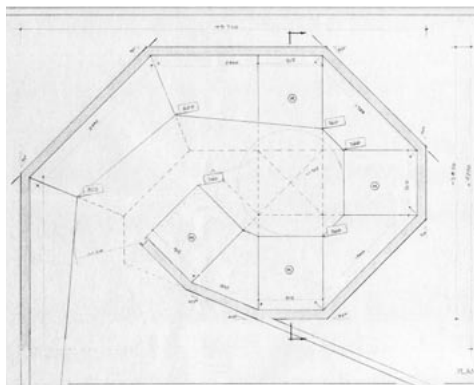
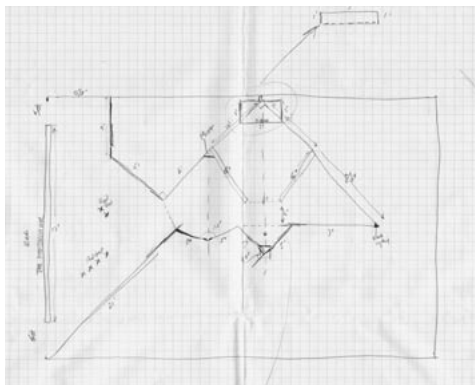
*This text was originally published in SubStance, no. 70 (1993), 41–52.  
It has been edited for the present publication.*

POSTSCRIPT

How does one begin to rethink the question of disciplines and knowledge in the context of the photographic image, when one realizes that it is impossible to escape the kind of spatio-temporal logic upon which it is founded? If one negates the conventional subject, then one escapes this logic, but only to find oneself situated in the more complex spatio-temporalities of the three-dimensional metahistorical fields of imaging technologies and related textual references and representations. These paradoxes were clearly present in *Photography: A Word* (1983) and progressively intensified till they reached peaks of visual frenzy in *The Photographer* (1985), *Through the Eye* (1986), and especially in *Eyes of China, Eyes of Steel* (1986).



An excess of words: David Tomas, Sheet (recto and verso) of calculations for the number of letters required for the text elements of *Photography: A Word*, 1983. Galerie Yajima, Montreal.



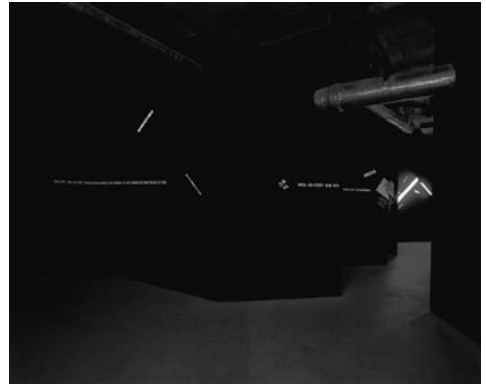
David Tomas, Sketch for *The Photographer*, 1985.  
*Aurora Borealis*, 1985, C.I.A.C., Montreal.

As these visual works suggest, the initial paradox between production and viewing strategies is fragmented and displaced indefinitely. However, if one wishes to retain a focus on the conditions surrounding the initial paradox, then one has to look for other ways to explore it. The first solution to be proposed was developed through a relationship between imaging machine, subject and spectator, and it consisted of continually blocking access to the subject while producing visual 'documents' of this act of negation. These documents took the form of photographs and drawings, with the latter serving as a parallel graphic site for the acts of negation. The reasons for this choice were logical and simple: photography and drawing were intimately related in the former technology's initial development. This relationship was expressed through

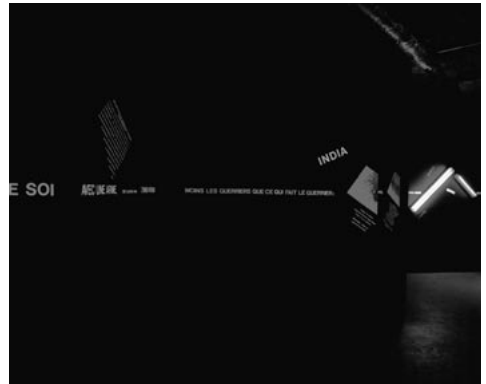


An excess of text: David Tomas, Ground plan for *Eyes of China*, *Eyes of Steel*, 1986, with a view of a section of the installation's interior walls. *Songs of Experience*, 1986, National Gallery of Canada.

Architectural Plans: Marc Deschamps.  
Photograph: Courtesy of National Gallery of Canada.



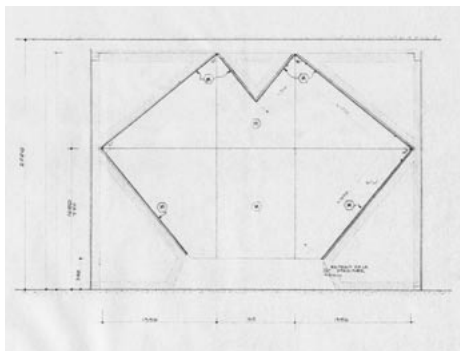
the backgrounds and interests of the first photographers (Niépce, Daguerre, Talbot, Herschel) and through contemporary discussions and comments. It is also expressed in the more abstract relationship between overexposed (or information-saturated) drawings (black) and photographs (white) and their connection with elementary classification systems that govern vision and its universe. There is also the drawing's basic role as notational and propositional medium (in disciplines ranging from physics and engineering to architecture and the visual arts) which parallels and often complements the use of photography in these domains. These links have only rarely been recognized, and have not been explored or exploited in creative and experimental ways.



The spatialization of sentences in the eclipse of their architectural base: David Tomas, *The Photographer*, 1985. *Aurora Borealis*, 1985, C.I.A.C., Montreal.

Photograph: Denis Farley.

Perhaps there is another answer to be found in the relationship between media that the first solution notes and exploits. This answer would take advantage of a transcultural way of thinking about the pictorial functions of the traditional image, but in the context of the contact—or the more radical fusion—between different media. The idea is presented in Talbot's *The Pencil of Nature*, Plate XI, where he notes that engraving can be copied and



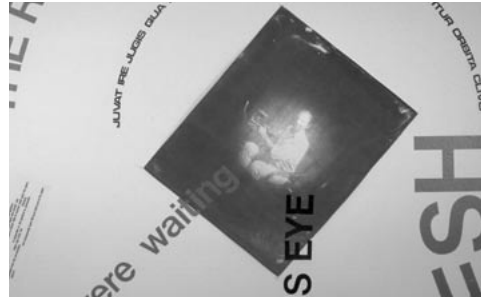
An excess of representation: David Tomas, Cross-section of the central chamber in *Eyes of China, Eyes of Steel*, 1986, with a view of the ceiling. *Songs of Experience*, 1986, National Gallery of Canada.

Photograph: Courtesy of National Gallery of Canada.

enlarged, and also in Plate xxiii where he notes that old master drawings can be preserved and multiplied, through photography. If one begins with these proposals and applies them in conditions that simulate a first contact space, then one is operating in a dimension and logic of the simultaneous presence of disjunctive spatio-temporal elements. This is perhaps the most singular of contact spaces because of its odd ‘uchronic’ position inside and outside of histories.

A series of photo-digitally enlarged drawings gathers its elements from anthropological sources, the history of media, transportation and communication, as well as sources from popular culture and the history of art. The elements are considered to be debris from the contact and frictions between disciplines in various stages of development. The mix is eclectic and intentional. The subject-matter is engaged with the objective of producing pictures that resist interpretation in a way that produces a condition of transcultural unease in a viewer. This condition is compounded by the ambiguous relationship between the medium of presentation (photograph) and subject’s medium (drawing). Although pho-

tophography is chosen as the final technology of reproduction, drawing is the subject’s final medium of execution. The choice of media and subjects produce a condition of uncertainty in the reading of the picture. One is continuously caught in the grip of a dual identity as one often reads the visual work as a drawing when it is actually the photograph of a drawing (and vice versa). This ambiguous oscillation between media mirrors the movement between disciplines noted in *For a Negative Practice of Photography*. The notion of “experiment” can now be transposed into a different spatial and experiential context. Moreover, the oscillation



Text and the blinding of the eye: David Tomas, View of the focal point in *Through the Eye* (version II), 1986. *Luminous Sites*, 1986, Video In/Western Front, Vancouver.

Photograph: Robert Keziere.



A Blinding Flash of Light: David Tomas, *Through the Eye* (version III), *Lumières: Perception-Projection*, 1986, C.I.A.C., Montreal.

between media provides a perfect meta-medium to explore transcultural phenomena. This medium simulates a ‘virtual reality.’ The attribution is not simply metaphoric, it points to an expanded definition of the virtual and to the position of this kind of practice in it.

Virtual reality or virtual environments are synonyms for the most powerful of media spaces that exist today. Paradoxically, however, this space remains a *terra incognita*. Little is known about its cultural logic or the types of intelligence that might survive in its digital environment. There are, as yet, few images that inhabit its digital space when compared to the images that inhabit photography’s various photochemical spaces or those that inhabit cinematographic or televisual spaces. Because this space can be treated as an unexplored and ‘uncolonized’ zone of cultural possibilities, it can serve as a unique context to enter into contact with transmedial

images, as well as to ‘probe’ and question pictorial, notational and propositional content in virtual terms. Photographic or photo-digital drawings are tools that can be used to raise similar questions, plus additional ones about the nature and constitution of transcultural phenomena, while respecting the interstitial, uncolonized ‘virtual’ nature of the space in which they are deployed.

A transcultural approach to picture-making activity is novel on three counts:

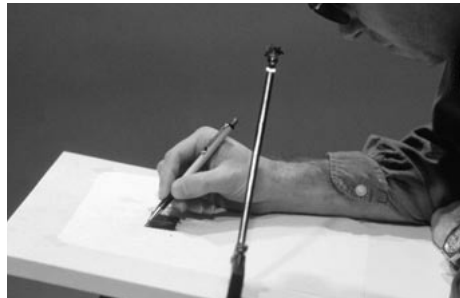
1. the interface between photography and drawing is its primary medium;
2. this interface is transmedial in the sense that it is the space of a drawing and that of a photograph, and simultaneously not the space of a drawing and not that of a photograph. The arena created by this transmedial interface serves as a ‘virtual reality’ or ‘virtual environment.’ This special interstitial space is a model for all hybrid spaces in the sense that it provides a unique medium through which to explore ideas and propositions in an ambiguous state in which they appear to be what they are not and vice versa;
3. the interface is conceived to be the most flexible medium through which to explore the kinds of propositions that are possible when transversal forms of knowledge enter into contact through the convergence of old and new media.

A photo-digital drawing also allows one to pose questions about images, pictures and knowledge in the broader context of counter-practices, especially the kinds of counter-practices that are available for an effective and critical engagement with the politico-aesthetic



David Tomas, Lead pencil drawings produced during *Experimental Photographic Structure III*, 1982.

Photograph: D. Tomas.



David Tomas, Lead pencil drawing in production during *Photography: A Word*, 1983.





Photography as a notational medium. News Photograph: Civil Training for Future R.A.F. Pilots. Before the expansion scheme all pilots entering the Royal Air Force were trained at one of the Service Flying Training Schools. The increase in the number of pilots has called for extra training schools and altogether there are now thirteen officially approved civil schools. After receiving preliminary training at the civil schools pupils pass to the R.A.F. schools for advanced training. These pictures were taken at the Civilian Flying Training School at De Havilland's aerodrome at White Waltham, near Maidenhead. Photo shows—A pupil handling a camera gun during target practice while the instructor and another pupil look on. Fox May 1st. 36.

Collection: D. Tomas.

dimensions of high technologies in the early twenty-first century. These questions are linked to an exploration of the conditions and limits under which marginal, so-called low or primitive technologies such as drawing and photography are transformed into powerful and subtle primary technologies of representation, observation, speculation and criticism in an electronic age. The relationships between media and media content that these links can produce, test the plasticity and epistemological range of archaic media in the face of the most modern of technologies of representation at a time when most people, including most artists, believe that advanced digital imaging systems and, in particular, virtual environment technology embody the outer limits of vision, representation, and even of the body itself. What emerges from these alternative fusions, cross-references, and speculative environments are transcultural events saturated by media and pictorial defamiliarization.



## 6. MEDIA HISTORY IN PARALLAX



## INTRODUCTION

The academic book has infiltrated contemporary art in ways that have a direct influence on artistic production. Because the visual arts are now predominantly taught in a university system that is organized around the library as manager and archive of knowledge, there has been a marked increase in the speed of dissemination and the circulation of artistic knowledge. Students are constantly informed about artists and their work, and how these artists/artworks are situated in an international cultural economy where academic theories and art practices are closely tied together.



Contemporary art's new incubator. A typical University Library.

Photograph: D. Tomas.



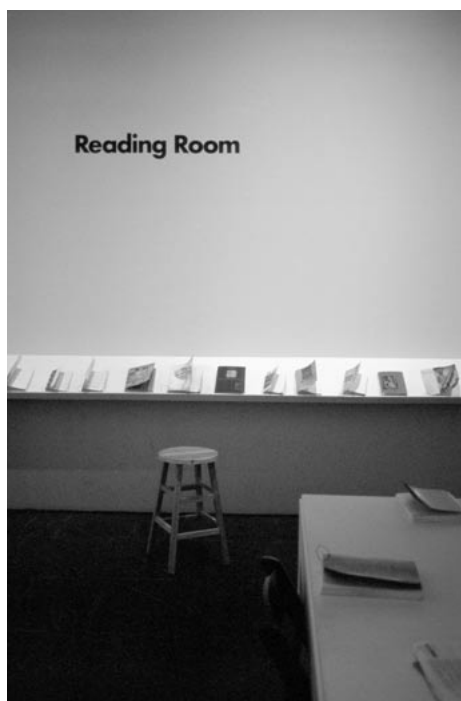
The photography section of an arts library.

Photograph: D. Tomas.

Today, one takes for granted that the formation of the artist is nurtured increasingly by way of the library and book. This was not always the case. Vocational art schools were structured around the studio and the book's presence was reduced to that of the sketchbook, the occasional work on colour theory or perspective, a handbook on art materials and processes, or the catalogue of an artist's work. Other kinds of books circulated in its space on the basis of individual interests and passions. In contrast, the contemporary university art department is organized in terms of studio practices, historical and topical theoretical courses, but also

in relation to other disciplines and to the library (operating as a centralized storage and distribution site for all knowledge associated with the university). Photography also has a place in the library that is assured through its intimate affiliations with the culture of the book from *An Historical and Descriptive Account of the Various Processes of the Daguerreotype and the Diorama*, by Daguerre (1839), and William Henry Fox Talbot's *The Pencil of Nature* (1844), to the latest books on its history, theory and practice.

However, from the academy's viewpoint, as well as that of the artist, there seems to be an implicit agreement that the consequences of the new relationship will not have a direct impact on the visual nature of the artwork, but it will continue to operate on its conceptualization and on its interpretation in an invisible, if tacitly accepted manner. Increasingly, the intimate relations between disciplines such as cultural and communication studies, anthropology, comparative literature, philosophy and the visual arts are being defined in terms of a hierarchy in which theory is seen to govern the parameters of contemporary art practice. Paradoxically, however, this hierarchy operates within a strict separation of the book and the artwork as visual objects where each is considered to be distinct in terms of form and as vehicles of knowledge.



Reading Room, Whitney Biennale, 1997.

Photograph: D. Tomas.

artists, while maintaining disciplinary boundaries that filter out the artwork's potential influence as medium for the propagation of other forms of knowledge. The contemporary

Anglo-American art world, which is predominantly university-based, is therefore a complex and contradictory environment because of its close ties to academic disciplines, cultures, communications systems and artifacts. This environment has little in common with the older vocational art schools.

There are a number of reasons for the maintenance of disciplinary boundaries in the university. First, academics might remain attached to their discipline's subject-matter, traditions, conventions, or norms of objectivity, and they might feel comfortable using existing communications networks and artifacts, because they have passed through the university's long processes of initiation and are now equipped to function in its mature, specialized culture. Second, the university system might not adapt as fast as individuals can to the consequences of new contact and exchanges between disciplinary representatives. These situations encourage continued flirtation between the members of various disciplines and the visual arts and a convergence of preoccupations transmitted by visual and textual works, not at their material level, but only at the level of their common academic references and theoretical presuppositions. What kind of visual work is produced under these circumstances and in this liberal cosmopolitan academic culture? Is it a work that operates in relation to disciplines in the sense that it has a determining place in each of them like the book or the photograph does? Clearly this is not the case. Artworks are used as references and source material in a number of disciplines such as Cultural and Visual Studies. They can fulfill a similar role in Communication Studies and Interdisciplinary Studies. However, in each case they are treated as raw material just as they are in the History of Art, or as the book might be in the case of Literary Studies. They have no status as potential communications and storage media in these disciplines in the sense that the book or photograph has.



Reading Room, Whitney Biennale, 1997.

Photograph: D. Tomas.

In the last twenty years, the university-trained artist has created artifacts that are increasingly defined by a specific kind of book culture. This culture is composed of old elements (specialized technical manuals, art histories, artist biographies, catalogues, and the *catalogue raisonné*), as well as new elements related to academic disciplines like anthropology, communication and cultural studies, history, semiology, and visual studies.

Let me be clear about what I am suggesting. The transformation that I have noted during the course of this book does not imply that art was ever isolated from theory or the influence of the book. On the contrary, it notes a new context and relationship that might have a profound impact on the way art is practiced, and it suggests that other forms of visual practice exist between different disciplines and the visual arts. Neither does it imply that the hierarchy I am pointing to between the book and artwork in the university is imposed against the artist's will. Students enroll in university art departments to become artists and they follow a curriculum that is designed with this objective in mind. Nor, finally, does it mean that works produced under the new circumstances are necessarily flawed. They are different because they reflect a different set of environmental conditions for the formation of the visual artist. However, what is significant about this relationship and its new circumstances is the blindness of the protagonists, or their complicity in a process that involves accepting the influence of forms of knowledge that are transmitted by the book, without attempting to reconceptualize and revisualize the formal and ideological relationships that might exist between this vehicle and the disciplinary forms that it serves.

For the moment, the book has maintained its form and structure while occupying well-demarked spaces in the university (the library and the bookstore), as well as having an extensive presence throughout the university's space (classrooms, offices). Its existence is secure in the short term. However, the book's continued success within the university only serves to draw attention to its paradoxical relationship with the art object, not only as university product, but as the means of encoding, storing and disseminating the visual knowledge that the artist produces as a researcher in this particular environment. Is there a different way to deal with the culture of the book as deployed in the university and in the visual arts, and how does photography figure in this option?

In its ideal form, the book is a manufactured object composed of a succession of printed pages protected by more or less rigid covers. Many unconventional books also adopt this model, or use it as a point of departure and measure of difference. In the case of Conceptual art, some of the most radical propositions were catalogues like *Douglas Heubler: November 1968*



955,000  
 AN EXHIBITION ORGANIZED BY LUCY LIPPARD  
 THE VANCOUVER ART GALLERY  
 JANUARY 13 TO FEBRUARY 8, 1970

Photography is a product of the non-relational esthetic that pervades the 60's, and its ramifications for all the arts are innumerable. Still photography is notoriously unselective; though it can be made to falsify or over-dramatize its subject, once a viewpoint is chosen extraneous detail cannot be omitted, nor reality re-arranged. It can bring art to the level of everything else (Ruscha's books) or ricochet off reality (Baxter) or prove that the work of art exists specifically (Ruppensberg, Morris) or generally (Smithson, Huebler). Bruce Nauman extracts the punning potential of photography, as he dealt with puns in his seminal piled, random rubber sculpture (he, Hesse and Viner were the first abstract artists to work significantly with soft materials), then in his elaborately titled "representational" pieces, in photographs ("Flour arrangement") and now in holograms. His films and tapes play deadpan act on timely fiction (fact taken on faith): "The True Artist Helps the World by Revealing Mystic Truths". "Do you believe that?" "I don't know. I think we should leave that open."

Title card to the 995,000 file card catalogue, Vancouver Art Gallery, 1970.

File card from the 995,000 catalogue, Vancouver Art Gallery, 1970.

and *March 1–31, 1969* because they collapsed the exhibition space into the catalogue, which produced a new definition of the artwork and gallery. *995,000*, the catalogue for an exhibition organized by Lucy Lippard at the Vancouver Art Gallery in 1970 is one of the most interesting of these catalogues from the viewpoint of book design.

*995,000* was the second version of the exhibition, *557,087*, staged at the Seattle Art Museum in 1969. The catalogue took the form of 137 4" × 6" file cards (95 from the Seattle exhibition plus an additional 42 from the Vancouver exhibition) that were randomly organized and placed in a plain brown paper envelope. In many ways, such as size, lack of traditional covers and binding, random organization, formal reference to the use of filing cards in the cultures of research and the library, as well as to their use by artists such as Robert Morris (*The File Card*, 1962) and Victor Burgin (*25 feet two hours*, 1967–68), this catalogue provides an important juncture between the new art objects of the 1960s and 1970s, and the information economy of the university that was increasingly to serve as a new context of art production. The catalogue also contains an important statement on the use of photography by conceptual artists. The statement notes photography's connection with a pervasive 1960s "non-relational esthetic" and acknowledges its objectivity once a viewpoint has been chosen. Both comments allow us to understand how photography served Conceptual art through its ability to frame and mechanically reproduce data in the form of photographs. There is no mention of process in its technical or symbolic senses, or its cultural significance beyond these basic characteristics.

However, photography has now passed through the computer's portal and into a digital world, where its products have acquired different characteristics and relationships to other media.



Joseph Kosuth, *Information Room*, 1970, as illustrated in Ursula Meyer, *Conceptual Art*, New York: E.P. Dutton, 1972, pp. 170–171. Kosuth's information room, with its references to a new information economy, the printed word, and book, is a paradigm of the new world of the post-1960s artist whose practices emerge from an often invisible sediment of textual references. It is interesting to compare this work with the 1993 Whitney Biennale's Reading Room.

leading edge of a new conception of the book by situating the design at the threshold of the old and new.

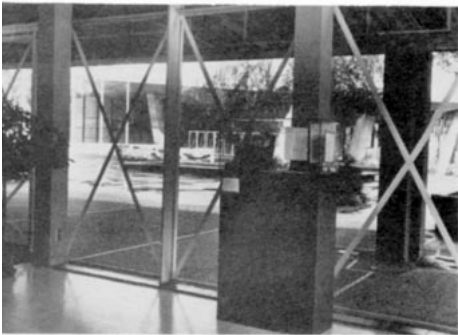
The book has always been considered to be one of the most efficient vehicles for a subject's presentation and display. It is a means of communication, of transportation across space and time, and it is also an archive. Its success can be measured by its stability and wide range of use as the principal archival medium in cultures across the world. Even today, the book offers viable alternatives to electronic media, through its accessibility, economy, ease of use and its autonomy when measured against other advanced storage media such as the CD-ROM and DVD, which are dependent on complex computer technologies. It is also important to emphasize that these technologies need electricity to operate correctly, whereas the book does not. Although this detail is self-evident, it is nonetheless important because it points to the physical and geographical limits of new media which can only be systematically used in regions of the world that are capable of providing the necessary technical and communications infrastructures to sustain an electronic computing culture. However, the book's independence in relation to complex technological infrastructures has to be measured against its limitations—size and

In this new world, photographs have lost their specificity and materiality and they cohabit with other media, including the book.

Because *995,000* still functions as a catalogue, which places it in the category of the book, its file card design restructures the book's basic physical characteristics, through its contact with different archival methods and models, and it also points to the new relationships that exist between it, the university's mature information economies, and an emerging 1960s post-industrial society, especially since the former anticipates the latter's culture of information. Its physical dimensions also link it to the book and its culture through parameters that are still governed by an object's relationship to the human hand. These features and references place *995,000* at the

**Seattle Installation**

- 1) Reading room (Ruscha, Kawara, Darboven, etc.)
- 2) Latham, Perreault, (Bollinger)



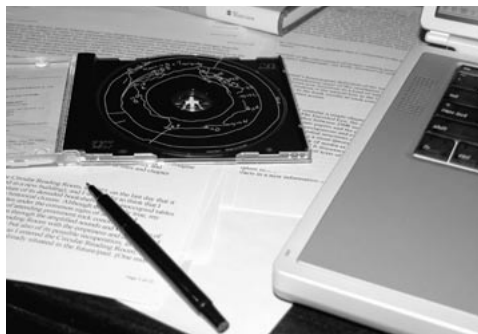
File card illustrating a Reading Room for artists's books. 995,000 catalogue, Vancouver Art Gallery, 1970.

weight—when compared to the products of the new world of communications and storage technologies. If these limitations have proved to be decisive in the short term, since one can now transfer the contents of a significant number of books onto one CD-ROM, then the book's recent proliferation has only proved that storage capacity might not be the ultimate measure of a medium's long-term success.

The book continues to occupy an important place in our information-saturated culture. This position is guaranteed by its production through computer-accelerated manufacturing processes. However, it is also undergoing radical change through experiments with its form and structure that are being conducted in the context of digital media and the new distribution networks associated with the Internet. This new space offers a medium in which the book becomes ethereal and takes many forms, since there is no need for information to be retained in a standard shape or predictable sequence of two-dimensional surfaces. This suggests that the book form that is most familiar in the university, and has served as the

ideal method of organizing and archiving information for hundreds of years, might not be the only way to store knowledge, and it might not even be practical. Other traditional media such as the photograph are being transformed in similar ways with parallel consequences.

New digital spaces associated with the computer provide new possibilities to produce unconventional books and photographs that are not limited by questions of size or material form in the same way as the traditional book or photograph has been. In contrast, the CD-ROM and Internet offer an author, book designer or photographer a medium that is capable of sustaining complex three-dimensional multi-user archives that can be scaled in different ways

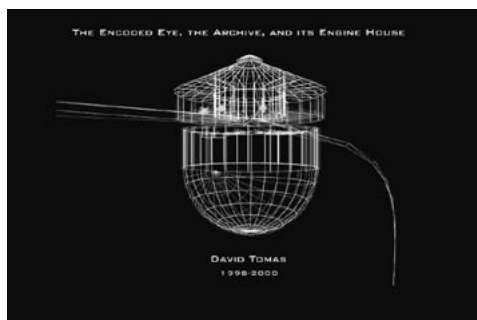


The conjunction of different systems of inscription, storage, and distribution in one work space: pen, paper, book, computer and CD-ROM book.

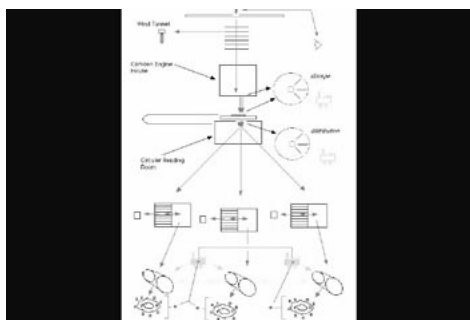
to mimic various spaces and artifacts, or can be mapped onto the new medium's cultural logic and design possibilities which are the result of various programming languages and software. With rare exceptions (the *995,000* catalogue), the book resisted the dematerialization of the art object in the 1960s and 1970s. Computing culture has, however, finally begun to subject it to the same process of decomposition, but not necessarily the same ends, as artists had subjected the artwork in those two decades of intense experimentation. Is it possible to

produce a book and/or photograph that takes account of its traditional logic while existing in a new form? Is it possible to produce a book and/or photograph that is in a reflexive relationship with the history of media?

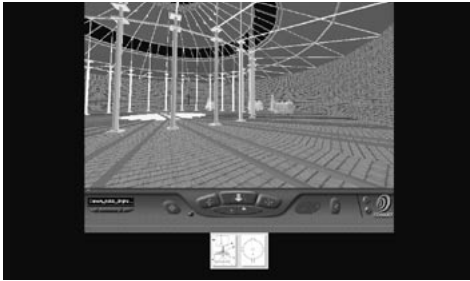
*The Encoded Eye, the Archive, and its Engine House* explores the book's transformation in the context of computer-based storage and distribution media. The chapter begins by noting the book's traditional form and its special characteristics. It goes on to raise questions about the extent of the book's transformation in the context of new computing media and how this transformation relates to the future of the storage, display and distribution of print-based and other two-dimensional forms of knowledge. Is there a recalibration of the human senses through a



David Tomas, *The Encoded Eye, the Archive, and its Engine House*, 1998-2000. Title page.



*The Encoded Eye, the Archive, and its Engine House*. Site map.

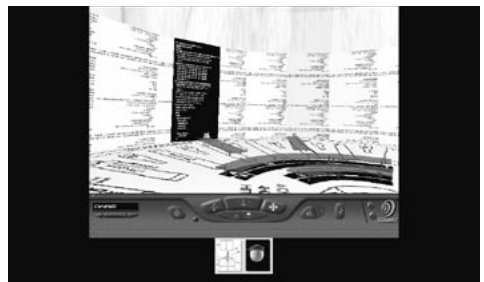
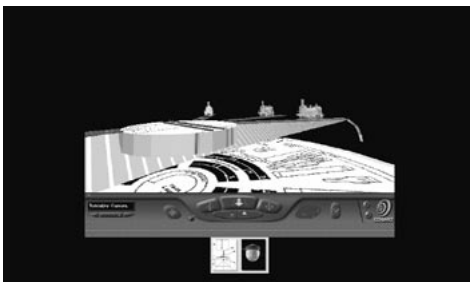


*The Encoded Eye, the Archive, and its Engine House.* Interior view of the Camden Engine House portion of the site with the three locomotive/chapters.

shift from the book to electronic storage and retrieval sites? How are the human senses of time, space, and history being reconfigured as storage and distributions sites change form and are consolidated in new ways? How is the nature and cultural value of information recalibrated by way of the Internet and new forms of storage such as computer hard drives, diskettes, Zip drives, CD-ROMs and through software programs?

between media, a period when old and new media still cohabit uneasily. This cohabitation can, however, reveal strange relationships and peculiar qualities between the old and new, as in the case of the visual residues of research activity that proliferates around the computer. Here again, we are confronted with the interaction and relationship between different kinds of information cultures and the question of thresholds between analogue and digital media and between related modes of perception; between different cultural logics associated with these media; and, finally, behind all these thresholds we are confronted with the basic question of contact, its logic and dynamics, as they have been explored throughout this book. Chapter 6.1 addresses these questions in the context of the logic and design of a CD-ROM and Internet-based three-dimensional VRML (Virtual Reality Modelling Language) book.

The late twentieth and early twenty-first centuries are witness to a unique transformation



*The Encoded Eye, the Archive, and its Engine House.* After clicking on the locomotive in the previous view, the reader is transported into the Circular Reading Room along with the locomotive/chapter which finds a resting place on one of the Reading Tables.

*The Encoded Eye, the Archive, and its Engine House* describes the product of a relational history of media. With this product, the 'artwork' as discussed in this book has finally lost its autonomy, to finally disappear, and a 'visual work' has emerged that is defined by a new set of objectives that are rooted in a culture of the book and trans-disciplinary forms of knowledge. They include a new concept of 'physical' stability linked to cultural logic, and set of relationships between a book's subject, each chapter's individual contents, their non-sequential logic, and the book's ultimate form and structure.

## 6.1 THE ENCODED EYE, THE ARCHIVE, AND ITS ENGINE HOUSE: FROM A RELATIONAL HISTORY OF TECHNOLOGY TO THE DESIGN OF A THREE-DIMENSIONAL ELECTRONIC BOOK.

The traditional book is a mass-produced object, generally rectangular in shape, consisting of a sequence of thin flat surfaces that are composed, most often, of paper. These surfaces are bound together and protected by more or less rigid boards. Each conventional book contains a body of common or interconnected information, displayed in the shape of words, symbols and images that are sequentially organized and presented on these surfaces or ‘pages.’ The range of this information is only limited by the possibility of its being reproduced in compact two-dimensional form. This artifact’s ubiquity as a convenient and economical storage device is related to the fact that in it all information is reduced to a common medium and format which are easily reproduced. A book’s organizational density (a function of the thinness of its pages) and compact size, ensures portability and ease of distribution; and its limited range of physical sizes (which are determined in part by portability) allows for efficient classification, storage and distribution in what is known as a ‘library.’

The book is also a singular mode of transportation and communication in that it can travel across space and time, thus providing a bridge between one place and another (as well as between the past and the future) through its capacity to carry and disseminate information and ideas. The book can operate in this way because it is a placeless object, in the sense that the information that it carries between its protective covers has been deterritorialized and recontextualized (within its own space). However, this capacity to deterritorialize is not confined to the graphic symbols that are encrypted between its covers. It can also extend to the human body itself, as a reader enters a book’s virtual world and her/his imagination is projected beyond the body’s material limits. Neither completely present nor completely absent, the reader’s body floats under the surface of consciousness, like the image of an object that seems to reach for the eyes from the depths of a watery medium.

Finally, the book’s impact on the human body extends to the senses. At times the senses are engaged in a direct way, as in the case of the eyes that scan the symbols and images imprinted on a page, or as the fingers of one’s hand turn a book’s pages, or as a book’s particular scent saturates one’s nostrils; while all the senses can be engaged in an indirect and virtual manner

through the machinations of words and images. Thus the book is not only a principal archival site for imagination and memory, it is also a powerful medium for their extension through space and time.

Lately, however, the traditional archival and transportational functions of the book have begun to be displaced in various ways by the computer, which serves as a primary and secondary storage device, as well as a primary medium of display and presentation. The book's storage capabilities are also increasingly split between diskettes and CD-ROMs, which function as both primary (CD-ROM) and secondary storage devices (diskette). These separations point to an important reorganization (and fragmentation) of the relationship between storage, distribution and display, which suggests that the book's form and functions are currently being redefined in the context of digital media (and by extension, also through the new distribution networks associated with the Internet). Such a redefinition of functions raises important questions about the future of the storage, display and distribution of print-based and other two-dimensional forms of visual knowledge. How, for example, is the sensory ecology that sustains our book-based reading experiences recalibrated in the cases of new forms of electronic storage/retrieval sites? How are our senses of time, space and history being reconfigured as storage/distribution sites change form and are consolidated in computing devices and networks? Finally, how is the cultural value of information recalibrated by way of the Internet and new digital storage devices (hard drives, diskettes, Zip disks, CD-ROMs) or the fluid and ephemeral editing/storage capabilities provided by word processing software, etc.? These questions are all the more important because they concern the future of an artifact that has, for the last five hundred years, intimately shaped our memories and our histories, and thus our identities as human beings.

The ubiquitous presence of the computer in most Western workplaces and domestic spaces, and the fact that it also serves as an interface and gateway to an interconnected information world, suggests that we are currently living through a unique period in the history of Western media and their cultures of representation. We are not only the privileged witnesses to an age of the virtual gestating at a threshold of emergence; we are also in a position to measure the virtual's impact on human memory and history because the computer occupies this threshold. But the computer is not alone. Other media gravitate around its glowing screen and move in and out of the worlds that interpenetrate at the site of the computer's installation. If words and images appear on the screen, then this process is still rooted in an ancient world. The computer's screen rises above an archaeological site to mark the precise location of a threshold



of gestation that exists between the analogue and the digital. This threshold is also its matrix and thus the only accurate (if paradoxical) measure of its transformative powers.

Although the development and proliferation of the computer is challenging older systems of storage and distribution (and in many ways displacing them), it is also drawing attention to the intrinsic qualities of these earlier systems. The movement of my eyes between the computer screen and the books that often lie open at its side, the movement of my hands as they type information and a moment later turn the pages of a book in search of information, and the digital encoding of information rather than its inscription by way of a pencil or pen on a piece of paper—such acts automatically trace out similarities and differences between media.

The contrasts and relationships highlighted by these movements are only magnified by the distinction between the traditional archive (the library) and a new emerging archive (the Internet), as the site of research shifts between the one and the other or oscillates between the two. Next to the computer, as in the case of the research material that occupies the surfaces of tables in a library, there is no need for the ordering and cataloguing of the sources of information that are the potential content of a new text or book. The activity of research that takes place through the transforming geography of paper, books, computer diskettes, Zip discs, and/or CD-ROMs, leaves a dissimulated sediment of sources and references in its wake.

However, as the offspring of a culture devoted to consumption, we are often more interested in the final product than we are in the unstable and ephemeral geography of a research activity, and the more so since such products are designed to exist independent of the production process. Thus, the elements that sustain research activity and serve as the signs of struggle and confusion are invariably destroyed in the interests of creating a *tabula rasa* for another project, the elements of which will quickly invade the previous site only to be destroyed in their turn. But this choice and its consequences raise important questions about the nature of knowledge and creativity, and the cultural values assigned to objects, processes and types of information.

How does one reduce these kinds of questions to the measure of one's own experience? How is one to account for this threshold between the analogue and the digital, in a way that can circumscribe a liminal gestational site so as to slow perception down and render both old and new media 'strange' in a transcultural anthropological sense—that is, in the sense of balancing between different kinds of information cultures while sustaining the freshness of their intercultural contact so that this threshold might exist spatially and temporally beyond

the immediate dictates of technological progress? How, in other words, can one mine the threshold in such a way as to expose its roots and use it as a pretext to rethink older forms of communication, storage and distribution, while simultaneously using these discoveries to rethink the virtual (and its relation to history)?

In the following pages I will outline the historical parameters and some of the theoretical, cultural and aesthetic issues that were involved with designing an Internet book entitled *The Encoded Eye, the Archive, and its Engine House* (1998–2000). The book was designed to address some of the issues that I have just raised within the context of a structure that is transculturally balanced between different kinds of information cultures, as well as old and new storage, distribution, transportation and communications technologies.

### **An Intersystemic or Networked History of New Technology and Some of its Basic Design Parameters.**

*The Encoded Eye* was conceived in relation to an alternative model of the history of transportation and communications media. The model is based on a reassessment of the hierarchical relationship between process and product, and on a proposal to treat the history of media in an interconnected manner—that is, as an intersystemic (networked) field that can be mapped in terms of ideational possibilities.<sup>1</sup>

Our culture operates on the basis of a fundamental distinction between ‘processes of production’ and ‘products.’ Earlier in this chapter I noted the presence of this distinction in the case of the physical sediment of research materials and activities that serve as a context for the production of a computer-based text. Clearly, in this example, the research process is separated from its final product, since notes, sketches, drafts, manuscript annotations, errors in orthography and punctuation, etc. do not figure in a published article or book, nor are they allowed to provide a context for its reception because the product would then be tied to its site of production, thus severely restricting its mobility. A similar distinction can also be found in the history of imaging technologies. In this case, the separation between process and product is reinforced through distinct sets of physical and sensory attributes, and a product’s relative mobility as compared to its process of manufacture or site(s) of presentation. Discrete collections, exclusive systems of historical classification, and independent archival sites serve to enforce the segregation of process and product. Although the rupture is based on spatial and temporal discontinuities between sites of exposure, processes of production,

and final products, and although it provides an efficient means of classification which, in turn, produces highly specialized knowledge, it does so at the expense of more accurate ways of apprehending and appreciating the cultural and historical singularities of images, their relationships to their own modes of production and reproduction, as well as to other technologies of communication/transportation.

Similar divisions exist between technologies and their histories. For example, consider the relationship between photography and the railway system—two of the most powerful technologies of communication and transportation to have shaped our modern world. Although they were conceived and developed in same period, country and culture (England during the first half of the nineteenth century in the cases of Talbot’s negative/positive photographic process and steam locomotion), by people who, if not in direct communication with each other, were certainly aware of each other’s work; photography and the railway system are rarely positioned in historical relation to each other. Thus it is not surprising that they are not linked economically, politically, socially or aesthetically. Instead of treating these technologies (and other contemporary technologies such as the telegraph and the steamship) in terms of a single historical or cultural frame of reference, where they function intersystemically as interconnected networks, they are perceived as isolated industrial and techno-scientific products.

However, contemporary insights concerning the interconnections between modern imaging systems, as well as their historical and perceptual impact on the human imagination, can unlock unforeseen vistas. An opportunity to experience “four impossibilities” in one’s lifetime —“the ocean-steamer, the railway, the electric telegraph, and the Daguerreotype”<sup>2</sup>—raises the prospect of an interrelated or networked history of technology. These comments by the American historian Henry Adams, made in 1904, were triggered by the unusual convergence of previously unimaginable technological inventions and the new experiential opportunities they presented. His observation implies that it might not be possible to separate these technologies and histories, except through an act of intellectual violence. This insight forces us to integrate the photograph within a larger intersystemic imaging culture including ships, railway and telegraphic systems, the cinema and the newer technologies associated with telephone and computer networks. Although rare, there are examples of this type of integrated approach.

Along with Adams’s unusual attempts to measure the historical impact of the scientific and technological advances of his period, there is one film that addresses modernity’s communications and transportation matrix while simultaneously exploring the nature of its own space. Dziga Vertov’s *The Man with the Movie Camera* (1929) is an exemplary model of an

intersystemic investigation of contemporary communication and transportation technologies in terms of how modern existence is considered in relation to transportation and communications media (locomotives, automobiles, trams, aeroplanes, telephones, etc.).<sup>3</sup> However, Vertov's model has one basic limitation: it was developed in relation to the medium of film. Although Vertov was certainly beginning to think through interrelations between new communications media in pan-human multi-sensory terms, the political situation in post-revolutionary Russia after the late 1920s effectively closed the possibility of cultivating a more complex experimental imaging practice. Since this strategy has not been promoted by other artists or media theorists, one can only speculate on the kinds of histories and media counter-cultures that could emerge from an intersystemic or networked approach to the history and culture of new media (as opposed to a conventional media-specific or multimedia based outlook).

Instead of investigating the various characteristics of a given technology's primary communications channel (the photographic, cinematic, televisual or videographic image) one could focus on the sediment of representations that define technology's ideational spaces. Moreover, one could choose to explore this sediment in the manner of an unconventional archaeologist who was only interested in the spatial and temporal relationships that could exist between representations and ideas. This archaeologist would be interested in exposing the arbitrary narratives that emerged as a consequence of various couplings of images/ideas in the sediment. He or she might even be bold enough to couple sedimentary images and actual three-dimensional artifacts. The conventional idea of a new technology would be undermined and transformed by this type of archaeological activity, because non-linear and trans-dimensional methods of association would replace the quest to establish simple temporal sequences that often serve as the elementary lineages that nourish an evolutionary commodity-based model of history. Since this model sustains the idea that new technological forms create privileged sites for new kinds of sensory activity, this belief would also be undermined through a displacement in point of view and through the creation of new trans-historical and trans-dimensional networks of sensory experience. But where, in the context of these networks, would any new technology begin and where would it end? Would it begin with the images that it produces? With the first sketches of the idea that it finally represents? Or, instead, with arbitrary entry and exit points in a sediment of ideational possibilities?

Insofar as the concepts of 'new' and 'original' are conceived in terms of a progressive model of history, they must also be reformulated to take account of a multitude of possible beginnings and endings, or entry and exit points. Such an approach would also change one's perception

of an artifact's representational status in the cases of imaging systems ranging from photography through to computing technologies, because the artifact could also be treated in the same multiple senses as its means of production. What epistemological and aesthetic results could one expect from this shift in point of view and potentially limitless digression in one's understanding of the relationship between an imaging system and its products through the telescoping of the latter into the former (and vice versa)? How, for example, would a digital image change if its code (the means of production) was rendered visible and treated as an image of equal stature? How would the two be positioned in relation to each other, the software and hardware environments that physically sustain them, and an outer environment that might only be equipped to process one category or kind of visual information? Where would the two representations begin or end, since they are similar yet so radically different? Finally, how would one navigate a design environment that acknowledged these kinds of equalities and insisted on articulating them in relation to a networked history of communications and transportation media? *The Encoded Eye* was designed with such questions in mind.

*The Encoded Eye, the Archive, and its Engine House*

URL: <http://www.cddc.vt.edu/encodedeye/>.

*The Encoded Eye, the Archive, and its Engine House* was designed to investigate the nature of the changes that the book (as object) could be subject to when it was translated through digital media and projected into a new kind of distribution space. However, *The Encoded Eye* did not focus on transformations in the book's textual presentation in the tradition, for example, of British Vorticist or Russian Constructivist typographic explorations and innovations in the spatialization of words. Instead, it considered the book's transformation as a visual and cultural object within the context of a specific architectural model of storage and distribution, while retaining a tension between the two-dimensional physical characteristics of the printed page and the computer screen. Within the context of *The Encoded Eye's* design parameters, these limitations were significant because the computer was conceived of from the beginning as the traditional book's final frontier—its screen being the first and only page.

In keeping with an interconnected history of technology, *The Encoded Eye's* basic structure was derived from a series of correspondences established between two key fixtures from nineteenth century London: The Circular Reading Room of the British Museum and the Camden Town Circular Engine House (also known as the Roundhouse). The Roundhouse was designed by Robert B. Dockray and his assistant Mr. Normanville, under Robert Stephenson for the

North-West Railway, and was built in 1846. The Circular Reading Room's basic design was proposed by Antonio Panizzi in 1852, and its construction was completed in 1857.

These architectural structures can be viewed as highly integrated solutions to the problem of designing large-scale storage, retrieval and distribution complexes for new concentrations of artifacts produced during the Industrial Revolution.<sup>4</sup> The Roundhouse, the first circular railway shed, was designed for the storage and distribution of locomotives; the British Museum's Circular Reading Room was designed for the storage and distribution of print-based knowledge and information. Although both sites were constructed for different kinds of artifacts, similarities in design suggest a series of correspondences in their cultural and historical functions. Moreover, since they provided similar solutions to the problem of storage and retrieval for an age that would radically redefine modes of transportation and communication, their integration into a project designed for a computer-based imaging environment would highlight their importance to any future investigation of the storage and retrieval of large-scale digital artifacts in a new information age. But their displacement and relocation would also create a powerful spatio-temporal fold in history, because a new integrated site would automatically become an interface between the past (as represented by these two remarkably similar architectural sites) and the future (as represented by the technical and aesthetic possibilities of the Internet when conceived as a medium for the production and distribution of alphanumeric and pictorial forms of knowledge). However, my choice of the Circular Reading Room and Camden Roundhouse as the visual references for this Internet book was not just historically inevitable (one could imagine beginning with another key architectural proposal such as Jeremy Bentham's Panopticon). It was spatially and temporally fortuitous because I was personally acquainted with both sites. Hence, the choice of architectural sites and book contents also reflects an autobiographical dimension.

### *The Encoded Eye's* Autobiographical Elements

I would like to think that it was as a bibliophile that I visited the Circular Reading Room in 1997, on the last day that it was open to the public (the British Library having been relocated in a new building). And I would like to think that I visited the empty space to experience, at first hand, the visual texture of its denuded bookshelves and unoccupied tables in the odd, hushed atmosphere of a protracted state of momentous historical closure. Although this is partly true, my visit was also motivated by the pre-existing idea of linking the two sites under the common signs of storage and distribution. I can trace one of the idea's roots to youthful

memories of attending prominent rock concerts in the Roundhouse's cavernous space, and to the derelict site's transformation through the amplified sounds and visual grain of an efflorescent counter-culture. These memories envelopped my visit to the Reading Room in the empty and deracinated space of a key historical site left to drift in the crosswinds of history, but also of its possible recuperation, in another context, in the name of revolutionary change and the future. Hence, I felt, as I entered the Circular Reading Room, that I was looking, listening, and moving through a potent liminal space that was already situated in the future/past. (One must not forget that the Reading Room's bookshelves were also empty shortly after it was constructed.) Thus it was under the sign of the future/past and its new 'uchronic' possibilities that the Roundhouse fused with the Circular Reading Room's functions in a way that opened to the possibilities of new visual forms and distribution networks, in particular, those forms and networks most closely associated with the transformation of print-based knowledge in a digital age.<sup>5</sup> But this fusion was made possible because it took place through the operations of a powerful visual metaphor that was designed to transport people and ideas between different spaces and times. For the Roundhouse is not only a key fixture in my imaginary, it served as a storage shed for locomotives which I have also used in miniature form in artworks, installations and performances that function as media archives and parallel uchronic sites. Moreover, inasmuch as locomotives (along with photography) belong to Adams's group of im/possible technologies of transportation and communication, *The Encoded Eye* is, in this same im/possible sense, also the locomotive's imaginary matrix—an actual turntable linking history to autobiography and vice versa.

It is worth emphasizing yet again the significance of Adams's phrase because it points to a relational history of representation, where different technologies and systems of representation are not treated in isolation but, in Adams's sense, as im/possible conjunctions in relation to a spectator's (and reader's) historically attuned imagination. It seems to me that we will always remain the victims of a Benthamian panoptically governed history of representation, so long as we continue to compartmentalize media (photography, film, television, video, virtual reality) and continue to insist on separating imaging technologies from their products. The question is, or should be: How does one dissolve inherited disciplinary boundaries in a way that foregrounds the tension between im/possible histories? The correspondences between the Roundhouse and Circular Reading Room allowed me to address this question within the context of the Internet and CD-ROM formats.

The choice of a new transgeographical context for these nineteenth century architectural sites was important because it allowed me to exploit the placeless character of the Internet and the fact that it resembles the nineteenth century library, both in its archival range and trans-locational character. In this connection, I think that Michel Foucault's heterotopian definition of the nineteenth century library captures with great acuity the paradoxical sense of this institution's peculiar placelessness.<sup>6</sup> Inasmuch as the Internet now functions as a kind of infinite archive of information, this new communications medium is the natural heir to the library, just as the computer is the natural, if awkward, heir to the book insofar as each computer terminal is a kind of page-like surface and point of Internet access. The Internet also allowed me to turn the traditional library inside out so that it would exist inside the page, as opposed to functioning as the latter's transcendent architectural container.



*The Encoded Eye, the Archive, and its Engine House. View of Wind Tunnel (1996–97). This portion of the overall site is an autonomous work that served as a prototype for *The Encoded Eye*.*

in a way that is exemplified by a photograph attributed to Fox Talbot. This undated Talbotype is part of a series of images, probably produced in the early 1840s, of an engineering model steam locomotive. It is therefore one of, if not the first, photographic image of a locomotive—but it is the photograph of a model. The model's image sits uneasily in its new photochemical environment, just as the environment itself appears to be the nervous host of this strange emergent form. The fusion of two new communication and transportation technologies reinforces the impression that the permanently emergent model (it is after all fixed in its own time and space) has moved through space and time encased in its photochemical medium, with the insularity and enigma of a spaceship—that gravity defying double of Foucault's exemplary placeless place: the ship. The image was initially transformed into a wire-frame object by David Bergevin, *The Encoded Eye's* engineer, for an earlier web site entitled *Wind Tunnel* (1996–97).

*Wind Tunnel* (which is also integrated as a reference and archive in *The Encoded Eye*) was specifically designed to function as a three-dimensional digital archive and archaeological site that



linked visual and acoustic elements from the early histories of photography, steam locomotion, and telephone communication, with phonographic and virtual reality technologies in a way that allows a viewer to follow the site's communication/transportation infrastructures through to their ultimate foundations in its wire-frame construction. The site was also composed of a network of different media, inasmuch as it coupled traditional drawing with digital and sound imaging technologies.

I began to work on *The Encoded Eye* project through my association with *Difference Engine*, a British electronic journal. The journal had republished an article in which I explored the relationship between railway locomotion and virtual reality (it figures in edited form as one of *The Encoded Eye's* chapters). Lachlan Brown, the journal's founding editor, was interested in exploiting web publication/distribution and was looking for other projects, in particular book-length projects, for an expanded version of his journal. In the aftermath of *Wind Tunnel's* design, I was looking for an opportunity to take a closer look at the im/possibilities of virtual intermedia linkage (in the context of uchronic histories of imaging systems that could be deployed in a Virtual Reality Modelling Language space).

### **The Circular Storage/Archive Site as Cultural and Design Metaphor**

A principal objective of *The Encoded Eye, the Archive, and its Engine House* was to explore the various cultural facets and visual dimensions of a key design matrix of modernity: a circular, integrated and centralized storage and distribution site organized as a sequence of berths or tables that radiate from a kind of central turntable. A further aim of the project was, as I have suggested, to bring the earlier architectural forms of the Camden Roundhouse and the Circular Reading Room into contact with the new digital spaces and architectural possibilities of the Internet, in a way that might eventually raise alternative historical and aesthetic questions about the latter. *The Encoded Eye's* design was a direct outcome of the possibilities suggested by this contact.

*The Encoded Eye* was conceived as a storage and distribution site for electronic configurations of knowledge that operate in counterpoint to patterns of knowledge that were previously circulated in book form. The site explored the similarities between the Roundhouse and Reading Room, while transforming them so that they might function as key references and interfaces with new imaging and communication technologies—technologies that are beginning to transform the nature of academic research and the storage, retrieval and distribution

of print-based knowledge. Again, it is important to emphasize that the site was crafted to operate between historical references, and that these were situated in the present, not in the past. Moreover, the tension between the site's autobiographical, academic and aesthetic dimensions ensured that the references and interfaces also functioned, in keeping with the site's three-dimensional form, as a kind of narrative and disciplinary turntable.

Although the Roundhouse and Reading Room are similar in form, their amalgamation was not obvious. Designing in response to existing architectural sites posed particular problems related to scale, authenticity, architectural integrity and integration, especially when possible solutions were measured against the project's theoretical parameters and the site's position in a new kind of space. An articulated design process was adopted, where the solution to one set of problems would provide a context for new problems and their solutions, and so on. Actual measurements and recent architectural plans (in the case of the Roundhouse) and historical information on the Reading Room's critical dimensions, provided a means of solving the problems of scale (both sites are full-scale), authenticity and architectural integrity. However, since the objective of the project was not to construct a realistic model of an historical site, but on the contrary, to design a different type of storage and distribution site, these initial solutions were subject to adjustment in the context of other problems (especially in the case of the Reading Room). Four key stages in *The Encoded Eye's* design were isolated in relation to the project's references and objectives: access; the meta-architecture of the integrated site; deployment of the chapters; and finally, the linkage between the two major architectural sites, the chapters and illustrations. Since the objective of this chapter is to present an overview of the project, I will simply itemize the solutions and outline the reasons why they were adopted.

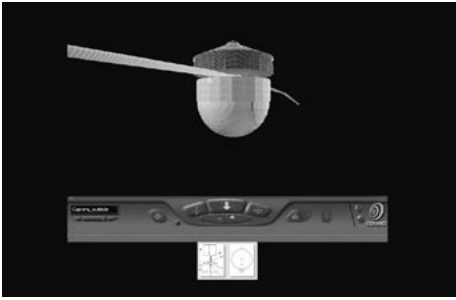
i) **Access:** The logic underlying the interface between a potential reader and the site was based on what a reader had to go through to get a book in the Circular Reading Room. The interface consists of seven diagrams derived from a modified plan of the round Reading Room which was available to visitors. Each of the diagrams has a number of 'buttons' that allow for forward or return movement. The first diagram has a button marked "introduction" and another marked "return." The position of the introduction button corresponds to the place in the Reading Room where one could get copies of the plan and other information leaflets. Clicking on this button brings a reader to the site's introduction, which is built around the Reading Room's central desk (which serves as another button). After reading the introduction, a reader can click on this button, which will bring her/him to a third diagram which has three buttons (plus the ubiquitous return button). The three buttons are labelled "on-line

catalogues,” and clicking on any one of them will bring the reader to a fourth diagram, which has a button marked “application for the book.” Activating this button will trigger the animation of another diagram with the label “book delivery service.” If the reader clicks on this diagram she or he will be presented with a sixth diagram containing the labels “engine house” and “book chapter” (reproduced three times). Clicking on the engine house button will bring the reader to the Roundhouse portion of the site and clicking on the book chapter buttons will trigger an additional step in the interface. In this case, the previous diagram is eclipsed, leaving the chapter labels floating in space without their corresponding buttons. However, the return and engine house labels retain their corresponding buttons (which are active).

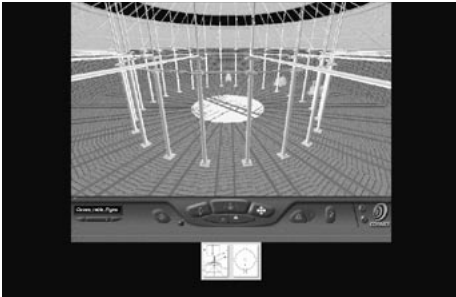
The extended interface was adopted for two reasons. First, in order to reproduce a similar (but not necessarily identical) sequence of events that corresponded to the steps that one might have to go through in order to obtain a book in the Circular Reading Room. The sequence was developed in order to create a tension between the spatial, temporal and institutional dimensions of the original site and a completely different kind of screen-based experience. In this sense, a reader is continuously, if not always consciously, brought back to an experience that was translated into a reproduction—like an image in a photograph or the plan of a room. Here there was no question of reproducing a pure on-line experience, but rather there was an attempt to position the reader between two worlds, the one more or less physical (but now non-existent) and the other more or less virtual (but entirely present). Secondly, the use of diagrams produced a two-dimensional experience that duplicated a computer screen’s two-dimensional surface while simultaneously creating a certain amount of distance through reference to drawings and diagrams that had initially been used to design the interface.

**ii) Architecture of the Site:** The basic problem in designing the site’s principal architectural structure was to find a solution that preserved the integrity of the two architectural components within the context of a structure that linked them together by way of a common logic, while nevertheless allowing for a certain amount of change to be introduced.

Initially, I decided to preserve the original dimensions of the Roundhouse and Circular Reading Room. Since these dimensions were tolerably close, any links and interfaces between the two produced an additional mirroring between virtual and non-virtual environments. Moreover, the Roundhouse was depicted in terms of an ‘old world’ realism, while the Reading Room was treated in a more experimental fashion, thus highlighting the similarities and differences between two models of the world. Almost immediately a solution was adopted which placed the Roundhouse on top of the Reading Room (which was inverted, thus allowing an interface



*The Encoded Eye, the Archive, and its Engine House.* Exterior view of the articulated site composed of the Camden Engine House and the Circular Reading Room.



*The Encoded Eye, the Archive, and its Engine House.* Interior view of the Camden Engine House with the three locomotive/chapters in place.

the Roundhouse, Circular Reading Room and *The Encoded Eye's* three chapters. These translucent green avatars operate in a new electronic space that is their uneasy host, not only because these strange enigmatic visitors are from an earlier time and space, but also because the new space has been designed to serve as a gestational medium for novel images and relationships that might not normally include nineteenth century locomotives, except under the guise of nostalgia or historical reconstruction.

Finally, since the Circular Reading Room was denuded of books (its original inhabitants), it was treated as a new kind of reading room where the bookshelves were replaced by a rotating circular surface that carried the site's underlying code. This created the possibility for a new

to be automatically created between the two ground-plans).

The solution allowed for the efficient circulation of artifacts (locomotives/book chapters) from one architectural site to another. This solution presented itself as the one that would best respect a certain temporal logic (the Roundhouse was built before the Reading Room). The spatial logic and transportation artifacts could then be used to produce, through transposition and translation, a new kind of reading experience which was tied to virtual architectural sites rather than real sites or books. The Roundhouse site could then be used for storage, while the other became a kind of distribution site, thus redistributing design functions in the new virtual complex. The two architectural components were linked by way of a railway line in the shape of a Möbius strip which allowed for animated locomotives to move between the inverted sites.

Cloned versions of the Talbot engineering model provide the animated linkage between

kind of reading experience, while preserving a space for an older style of reading rooted in the contents of each chapter. This strategy was also adopted for the locomotives. Each of the locomotives contains a rotating code-inscribed cylinder. A reader can eventually uncover one of these rotating cylinders by penetrating a locomotive's surface and discover that they provide a direct link to a floating architectural site (also situated in a large rotating code-inscribed cylinder). (The cylinder and site serve as a context for the chapter illustrations.) This discovery leads to the realization that the locomotive's rotating cylinders are, in fact, the same rotating cylinders that host the illustrations and their architectural settings, thus collapsing the loop between locomotive, illustrations, and the former's underlying software codes.

These solutions allowed for the construction of a virtual architectural complex that was, in keeping with the project's practical and theoretical parameters, delicately balanced between periods, structures, artifacts and experiences.

**iii) Contents and Deployment of the Chapters:** The print-based facets of the site consist of three chapters plus an introduction. The chapters were chosen specifically for their reference to the locomotive. This reference functioned as an autobiographical and analytical interface with the site's architecture, while the common storage and distribution logic became the key reference for the chapters's deployment. One of the chapters focused on family photographs that related in some way to René Magritte's *La Durée Poignardée* (1938). Another chapter focused on early trainspotting activities and their extensions into films such as Chris Marker's *Sans Soleil* (1982), Wim Wender's *Tokyo-Ga* (1985), and Andrei Konchalovsky's *Runaway Train* (1985). A third chapter explored the theoretical implications of linking virtual reality to steam locomotion. Through the linkage of architectural form, a common storage and distribution logic, and thematically tailored chapters, I felt that there was an opportunity to create an unusual archive situated at the threshold of print and digital cultures.

However, in keeping with the site's architectural references and the design possibilities of environments based on Virtual Reality Modelling Language (VRML), the chapters do not function linearly. There is no progressive sequence between a first and concluding chapter. Instead, the chapters are deployed in a circular matrix based on an amalgamation of the two architectural sites, and can be accessed in any order as simultaneously linked and yet distinctly autonomous textual entities.

The spatial deployment of the chapters was linked to an overlay of three architectural ground-plans (produced in 1848, 1853 and 1856) of the Camden Engine House with its engine

berths, the Circular Reading Room with its Reader's tables, and an original sketch by Panizzi, dated April 18th, 1852, which now exists only as a reproduction. Although the Camden Engine House originally housed twenty-three engine bays and one entrance/exit, and the Circular Reading Room contained thirty-five reading tables and one principal entrance/exit, *The Encoded Eye* only includes three berths/tables/chapters. This number was deduced by drawing on the correspondence between berths and desks in each architectural site, and the placement of three similar but unidentified elements in the Panizzi sketch. The overlay of three types of drawings made it possible for the chapters to be positioned on the basis of a common logic that linked each architectural component to an initial idea in the shape of a lost sketch, which now only exists as a copy.

**iv) The Deployment and Architecture of the Illustrations:** Deployment of the illustrations presented a particularly sensitive design problem because of their intimate links to each chapter and their status as independent visual elements. How was I going to juxtapose text and illustrations in a logical manner while retaining ties to the conventional book and the possibilities presented by the new environment (with its virtual architectural complex)? I needed to find a way to link the illustrations with the basic logic of the complex in a manner that respected its overall historical, cultural and technological parameters.

The irregular movements of what could be interpreted as a hypothetical 'first reader' in the original Panizzi sketch provided a solution that effectively linked the various dimensions of the complex to the fiction (and utopia) of a virtual two-dimensional presence, the movements of which were registered in the form of an intermittent, irregular graphic line. The discontinuous nature of the lines also complicated the idea of a coherent movement, suggesting that this type of experience might only be possible in a new kind of space. In this sense, a twenty-first century reader is again balanced between the visible and invisible, the possible and the impossible. Finally, each change of direction was interpreted as this first virtual reader's response to an interesting event which was defined, in this case, as the presence of an illustration. Here the virtual complex's various dimensions were extruded through the fiction



*The Encoded Eye, the Archive, and its Engine House. View of the 'Memoirs of a Trainspotter' chapter.*



*The Encoded Eye, the Archive, and its Engine House.* View of the 'Thresholds of Identity' chapter.



*The Encoded Eye, the Archive, and its Engine House.* View of the 'Vaporized Memories & Pixelated Dreams' chapter.

of an original reader's hypothetical movements in the utopian two-dimensional space of a sketch for a specific placeless place—a library. But not just any library: the Circular Reading Room of the British Museum.

The illustrations were situated in three different architectural settings, and each one was associated with a given chapter. These settings were designed on the basis of a complex set of references mediated by transparent overlays positioned between contemporary illustrations of the Camden Engine House (1846–47, 1848) and its three engineering/architectural ground-plans (1848, 1853, and 1856). The illustrations were deployed in the two-dimensional 'in-between' space of these visual references—a space that, paradoxically, could only exist in a three-dimensional form.

While each floating architectural site is different, the illustrations from the chapters are all present. However, illustrations that relate to another chapter are not activated. Thus, one is confronted with active and inactive

illustrations, the former allowing for a passage between text and image.

Clicking on the title of each chapter causes all text to be eclipsed with the exception of individual words that are links to particular illustrations. This choice provides the reader with two alternative reading experiences. The first is conventional and content-driven. This method of presentation is juxtaposed with a means of accessing the text as a string of words that scroll behind a small window at the bottom of the screen, like a landscape or cityscape would if one were looking out of a railway carriage. In this instance, there is no link between text and illustrations. The second choice transforms words into a type of concrete poem, since they remain in the same place that they occupy in the text. The minimal nature of this kind of reading experience is emphasized by the fact that each isolated word is linked to a

particular image (as opposed to an illustration). Here the context that defines the illustrative function of an image is eliminated, and chapter content is translated into a predominantly visual set of relationships between the illustrations embedded in the text and their doubles, which are deployed in a VRML space within the rotating cylinders.

Although a reader can proceed systematically through the site while accessing various camera positions which provide fixed points of view, there is, at all stages in a reader's engagement with *The Encoded Eye*, the possibility for alternative or deviant readings. It is simply a question of moving off the railway line, so to speak, or of moving off the chart presented by the site map. Tangential readings can uncover some of the site's secret elements and effects.

Finally, I have implied that a reading experience is solely the product of an individual interaction with the site. However, since the site can exist in different forms which are nevertheless tied to the computer terminal, there are a number of other possible relationships between a reader and *The Encoded Eye*. For example, it can be viewed in isolation (like an individual book) or as an installation composed of a minimum of two terminals linked to LCD projectors.

In the latter case, reading experiences are rendered public (as in the case of a new form of public library) and a spectator can plot the progress of two or more readers as they simultaneously engage with *The Encoded Eye*. This form of presentation transforms *The Encoded Eye* into a three-dimensional installation, thus highlighting its relationship to text-based performance/installations.<sup>7</sup> *The Encoded Eye* was conceived as a threshold environment (between the traditional book and the computer), but its references, parameters and modes of presentation place it in an indeterminate space between the book, computer and installation art.

## Conclusion

The new meta-architectural site provides a navigator/reader with a different kind of reading experience that nevertheless interfaces with traditional print experiences. It does so by structuring the navigator/reader's experience according to the integrated storage and distribution logic upon which both the Circular Reading Room and the Roundhouse were founded. On the one hand, there is an amalgamation and integration of the architectural, cultural and communicative functions of both architectural sites, in a way that provides an historically resonant interface between old and new architectural forms, as well as old and new methods of presenting, storing and distributing print-based knowledge. On the other hand, the site provides the interface and passageway between two models that have been modified to take



account of each other's historical similarities and peculiarities. However, since such an experience can only be simulated in a VRML-type space and is, moreover, a product of this space, the experience is as much an artifact of the Internet's communications and distribution logic and its VRML and hypermedia logics. Thus, *The Encoded Eye* becomes a chimera conjured up through the machination of a new type of engine house: a digital engine house.

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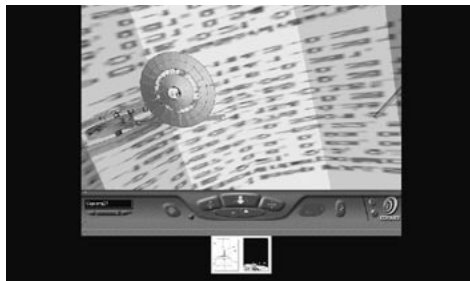
## POSTSCRIPT

*The Encoded Eye, the Archive, and its Engine House* is the culmination of my exploration of photography and other media, forms of knowledge and disciplines that began in the mid-1970s with works on the history of physics and the Experimental Photographic Structures of the early 1980s. It provides another answer to the question of how one might construct a visual artifact on the basis of a movement between disciplines. In this case, the visual work takes as its model the academic book that was hidden in the background of many visual works of the late 1970s through to the 1990s. However, there is no attempt to engage with this model in terms of its relationship with the artwork or photograph. The model is acknowledged, but only in an oblique fashion, since *The Encoded Eye's* objective is to speculate on the book's transformation (in relation to forms of knowledge and disciplines) when it is the product of a movement between disciplines, technologies and media. From this viewpoint, it is equivalent to the Experimental Photographic Structures. If the latter were conceived in relation to specific locations, *The Encoded Eye* takes the book as its context but only after virtualizing it. Photography remains visible in this virtual space, but only in relation to other technologies (locomotive) and media (painting, film). *The Encoded Eye* is conceived as a virtual three-dimensional installation and it represents another attempt to produce a visual work that can take account of its own culture and logic of production, and transform them into a new visual context and work. The site is also structured around the question of the author's relationship to the architectural sites and chapter contents in a manner that refers back to the question of the photographer's insertion in the 1980s Experimental Photographic Structures and performed installations. Finally, the 'book' represents the amalgamation of academic text and performed installation in a virtual context where both have been forced to take account of each other's cultures and references.

There are other dimensions to the *The Encoded Eye* that are worth noting. It represents an attempt to produce a book that exists at the interface of theory and practice in the sense that it embodies a set of theoretical presuppositions derived from the ones that were developed in relation to the Experimental Photographic Structures: that the university is now the frame of reference for the production of artworks; that one can only produce visual works that exist



*The Encoded Eye, the Archive, and its Engine House.* View of the relationship between a specific illustration and the VRML space associated with a specific chapter (The Memoirs of a Trainspotter).



*The Encoded Eye, the Archive, and its Engine House.* View of the VRML space for the illustrations to the “Vaporized Memories & Pixelated Dreams” chapter.

as a consequence of a movement between disciplines; that one cannot isolate technologies of reproduction and media from each other; and that works must take account of their culture, its logic, and the university’s frame of reference. These must be their context of production.

*The Encoded Eye* is an example of the kind of convergence of picture-making practices that I noted in the first page of my foreword to this book. In its space, book chapters, photographs, locomotives and architectural sites cohabit in a configuration of storage and distribution, and they do so in a way that highlights the tension that can exist between the two-dimensional physical characteristics of the printed page and the computer screen. The photographer, who first animated the Experimental Photographic Structures, has vanished, to be replaced by a diffused virtual autobiographical presence: a network of personal visual and textual references that radiate throughout the architecture, chapter contents and accompanying photographs.

If the new meta-architectural site provides a navigator/ reader with a different kind of reading experience that nevertheless interfaces with, or references traditional print experiences, then this is because *The Encoded Eye* is a digital engine house conjured up through the machination of a transcultural figure who is caught between the known space of the university and the unknown spaces between disciplines.





### 1.1 FOR A NEGATIVE PRACTICE OF PHOTOGRAPHY: AN INTERVIEW WITH ALBERTO CAMBROSIO

1. By placing emphasis on the syllable “*voir*” in the verbs *pouvoir* (to be able) and *avoir* (to have) and the noun *savoir* (knowledge), David Tomas stresses the visual aspect of these words and what they represent (*voir* = to see) in a way that cannot be rendered in translation. *Trans*.

### 1.2 FROM GESTURE TO ACTIVITY: DISLOCATING THE ANTHROPOLOGICAL SCRIPTORIUM

1. Pierre Clastres, “Of Torture in Primitive Societies,” in *Society Against the State: Essays in Political Anthropology*, trans. Robert Hurley and Abe Stein (New York: Zone Books, 1987), 177.
2. Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1984), xix.
3. Jean Starobinski, “The Natural and Literary History of Bodily Sensation,” in *Fragments for a History of the Human Body*, ed. Michel Feher, Ramona Naddaff, and Nadia Tazi (New York: Zone, 1989), 353.
4. See, for example, James Clifford, “On Ethnographic Surrealism,” in *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art* (Cambridge, Mass.: Harvard University Press, 1988), 133: “The body, like a culture semiotically imagined, is not a continuous whole but an assemblage of conventional symbols and codes.”
5. James Clifford and George E. Marcus, ed., *Writing Culture: The Poetics and Politics of Ethnography* (Berkeley: University of California Press, 1986). See also, Jonathan Spencer, “Anthropology as a Kind of Writing,” *Man* 24, no. 1 (1989): 145–64.
6. James Clifford, “Introduction: Partial Truths,” in *Writing Culture: The Poetics and Politics of Ethnography*, ed. James Clifford and George E. Marcus (Berkeley: University of California Press, 1986), 21, 20.
7. *Ibid.*, 3, 2, 6, 2.
8. See Paul Rabinow, “Representations Are Social Facts: Modernity and Post-Modernity in Anthropology,” in *Writing Culture: The Poetics and Politics of Ethnography*, ed. James Clifford and George E. Marcus (Berkeley: University of California Press, 1986), 245; Deborah Gordon, “Writing Culture, Writing Feminism: The Poetics and Politics of Experimental Ethnography,” *Inscriptions* 3/4 (1988): 7–24; and Frances E. Mascia-Lees, Patricia Sharpe, and Colleen Ballerino Cohen, “The Postmodernist Turn in Anthropology: Cautions from a Feminist Perspective,” *Signs* 15, no. 1 (1989): 13.
9. See Clifford, “Partial Truths,” 24, 5.
10. Clifford, “Partial Truths,” 1. In “Writing Culture, Writing Feminism,” Gordon has also drawn attention to the Tyler photograph; not, however, in terms of its authorship, photography’s relationship to postanthropological writing, or in relation to oppositional activities that might be situated transdisciplinarily. However, the feminist concerns she and other feminist anthropologists have raised in connection with

Clifford's position must remain central to the development and/or critique of any type of postanthropological oppositional practice or activity.

11. See Rabinow, "Representations Are Social Facts," 243; Clifford, "Partial truths," 1.
12. Clifford, "Partial Truths," 26, 4.
13. See Teresa de Lauretis, *Technologies of Gender: Essays on Theory, Film, and Fiction* (Bloomington: Indiana University Press, 1987), 2.
14. Clifford, "Partial Truths," 4.
15. Clifford, "Partial Truths," 2. The sociolect of ethnographic writing is, in Clifford's opinion, determined in "at least six ways." See Clifford, "Partial Truths," 6:
  1. contextually (it draws from and creates meaningful social milieux);
  2. rhetorically (it uses and is used by expressive conventions);
  3. institutionally (one writes within, and against, specific traditions, disciplines, audiences);
  4. generically (an ethnography is usually distinguishable from a novel or a travel account);
  5. politically (the authority to represent cultural realities is unequally shared and at times contested);
  6. historically (all the above conventions and constraints are changing).

Clifford goes on to point out that "these determinations govern the inscription of coherent ethnographic fictions."

16. Myopia is also very much in evidence in Clifford's contribution to a 1989 collection of essays on the theme "Traveling Theories: *Traveling Theorists*," published in the journal *Inscriptions*, where theory is ethnologized and invariably considered as a mode of writing, and travelling is considered as something that seems to be technologically value-free. It is hardly surprising, therefore, that we find in Clifford's contribution, the following observation: "How does theory travel and how do theorists travel? Complex, unresolved questions..."—to be succeeded by a brief reference to the "immigrant boat" and "plane" as pertinent modes of transportation (see Clifford, "Notes on Travel and Theory," *Inscriptions* 5 (1989): 179, 185). Unfortunately, such questions will remain unproblematized and unresolved until they are linked not to travel but to transportation, and the means of transportation is itself theorized as a colonial or postcolonial construct. Incidentally, the photograph that (ironically?) adorns the front cover of this collection of essays is of a railway accident. For preliminary examinations of the colonial preconditions of nineteenth and early twentieth century ethnographic observation in British anthropology see David Tomas, "An Ethnography of the Eye: Authority, Observation and Photography in the Context of British Anthropology, 1839–1900," Ph.D. diss. (Montreal: McGill University, 1987), and David Tomas, "Tools of the Trade: The Production of Ethnographic Observations on the Andaman Islands, 1858–1922," in *Colonial Situations: Essays on the Contextualization of Ethnographic Knowledge* (HOA 7), ed. George W. Stocking (Madison: University of Wisconsin Press, 1991).
17. See George E. Marcus and Dick Cushman, "Ethnographies as Texts," *Annual Review of Anthropology* 11 (1982): 25–69; George E. Marcus and Michael M. J. Fischer, *Anthropology as Cultural Critique*:



- An Experimental Moment in the Human Sciences* (Chicago: University of Chicago Press, 1986); and James Clifford, "On Ethnographic Allegory," in *Writing Culture: The Poetics and Politics of Ethnography*, ed. James Clifford and George E. Marcus (Berkeley: University of California Press, 1986).
18. See Eric Partridge, *Origins: A Short Etymological Dictionary of Modern English* (New York: Greenwich House, 1983), 446.
  19. See Johannes Fabian, *Time and the Other: How Anthropology Makes its Object* (New York: Columbia University Press, 1983); and Tomas, "An Ethnography of the Eye."
  20. See Clifford, "Ethnographic Surrealism"; and George E. Marcus, "The Modernist Sensibility in Recent Ethnographic Writing and the Cinematic Metaphor of Montage," *SVA Review* 6, no. 1 (Spring 1990): 2–12, 21, 44.
  21. See chapter 1.1. This interview was originally published under the title "David Tomas, Pour une pratique négative de la photographie : entretien avec Alberto Cambrosio," *Parachute* 37 (1984–85): 4–8.
  22. See Clifford, "Partial Truths"; "Ethnographic Allegory"; and *The Predicament of Culture*.
  23. Roland Barthes, "Writers, Intellectuals, Teachers," in *The Rustle of Language*, trans. Richard Howard (New York: Hill & Wang, 1986), 320.
  24. Roland Barthes, "On Photography," in *The Grain of the Voice: Interviews 1962–1980*, trans. Linda Coverdale (New York: Hill & Wang, 1985), 360.
  25. See Gordon, "Writing Culture, Writing Feminism"; Frances E. Mascia-Lees, Patricia Sharpe, and Colleen Ballerino Cohen, "The Postmodernist Turn in Anthropology," 13–14; and Lawrence Grossberg, "Wandering Audiences, Nomadic Critics," *Cultural Studies* 2, no. 3 (1988): 389 n. 7.
  26. See Clifford, "Partial Truths," 2.
  27. *Ibid.*, 2.
  28. See Gordon, "Writing Culture, Writing Feminism," 8.
  29. See Rabinow, "Representations Are Social Facts," 253.
  30. Clifford, "Partial Truths," 3.
  31. See Janice Radway, "Reception Study: Ethnography and the Problems of Dispersed Audiences and Nomadic Subjects," *Cultural Studies* 2, no. 3 (1988): 367; and Grossberg, "Wandering Audiences, Nomadic Critics," 377–91.
  32. Rabinow, "Representations Are Social Facts," 241–47.
  33. Roland Barthes, "Mythology Today," in *The Rustle of Language*, trans. Richard Howard (New York: Hill & Wang, 1986), 66, 68, 67, 66.
  34. Clifford, "Partial Truths," 2.

35. de Certeau, "Dedication," in *Practice of Everyday Life*.
36. See Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (London: Flamingo/Fontana, 1984), 42–43; and Rabinow, "Representations Are Social Facts," 251–52.
37. See, for example, Roland Barthes, "From Speech to Writing," in *The Grain of the Voice: Interviews 1962–1980*, trans. Linda Coverdale (New York: Hill & Wang, 1985), 7:
- In writing, what is *too* present in speech... and *too* absent from transcription... namely the body, returns, but along a path which is indirect, measured, musical, and, in a word, *right*, returning through pleasure, and not through the Imaginary (the image). It is, after all, this voyage of the body (of the subject) through language which our three practices (speech, the written, writing) modulate, each in its fashion... speech, the written, and writing engage a separate subject each time, and the reader—the listener—must follow this divided subject, different depending on whether he speaks, transcribes, or formulates.
38. Clifford, "Partial Truths," 26.
39. Barthes, "Writers, Intellectuals, Teachers," 321, 322, 321.
40. James Clifford, "Notes on (Field)notes," in *Fieldnotes: The Makings of Anthropology*, ed. Roger Sanjek (Ithaca: Cornell University Press, 1990), 51, 52, 47.
41. *Ibid.*, 54.
42. *Ibid.*, 53.
43. *Ibid.*, 52.
44. *Ibid.*, 63.
45. See Tomas, "Tools of the Trade."
46. See Rabinow, "Representations Are Social Facts," 251–54.
47. Edward W. Said, "Representing the Colonized: Anthropology's Interlocutors," *Critical Inquiry* 15 (1989): 212.
48. James Clifford, "Introduction: The Pure Products Go Crazy," in *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art* (Cambridge, Mass.: Harvard University Press, 1988), 15–16, 17.
49. James Clifford, "On Ethnographic Authority," in *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art* (Cambridge, Mass.: Harvard University Press, 1988), 23.
50. See Rabinow, "Representations Are Social Facts," 242–47.
51. Barthes, "From Speech to Writing," 6. It is worth keeping in mind the full implications of the following observation by Barthes:

In the debate of ideas, very widespread today thanks to mass communication, each subject is led to situate, to mark, to position itself intellectually, which means: politically... the concern is... to present to the public, then to the reader, a kind of theater of intellectual occupations, a staging of ideas (this reference to the theater does not in the least discredit the didactic or analytic interest, the sincerity or the objectivity of the views exchanged).

52. Roland Barthes, "Rhetoric of the Image," in *Image—Music—Text*, trans. Stephen Heath (Glasgow: Fontana/Collins, 1977), 38.
53. See Barthes, "From Speech to Writing."
54. See Barthes, "The Photographic Message," and "Rhetoric of the Image," in *Image—Music—Text*; "On Photography," in *The Grain of the Voice: Interviews*; and *Camera Lucida*.
55. Barthes, "From Speech to Writing," 5.
56. Clifford, "Partial Truths," 12.
57. Barthes, *Camera Lucida*, 89.
58. Barthes, "Rhetoric of the Image," 45.
59. Rabinow, "Representations Are Social Facts," 251.
60. de Certeau, *Practice of Everyday Life*, 201.
61. Clifford, "Partial Truths," 2.
62. See Clifford, "Partial Truths," 3, 26; "Pure Products Go Crazy," 10, 13; "Ethnographic Authority," 51; and "Ethnographic Surrealism," 146.
63. Rabinow, "Representations Are Social Facts," 243, 244.
64. Clifford, "Partial Truths," 12.
65. Rabinow, "Representations Are Social Facts," 243.
66. See Tomas, "An Ethnography of the Eye."
67. See Clifford, "Partial Truths," 26; and Clifford "Pure Products Go Crazy," 13.
68. Clifford, "Ethnographic Surrealism."
69. *Ibid.*, 142, 146.
70. *Ibid.*, 146.
71. *Ibid.*, 146–47.
72. Clifford, "Pure Products Go Crazy," 12.

73. Said, "Representing the Colonized," 213.

74. *Ibid.*, 217.

75. Clifford, "Partial Truths," 3.

76. Clifford, "Ethnographic Surrealism," 147.

77. Clifford, "Partial Truths," 4.

78. In this connection see, for example, Clifford's directive for a new "postliterary" neo-exoticism in "Ethnographic Surrealism," 151, n. 6:

When the 'coefficient of weirdness' floats free from the 'coefficient of reality,' the result is a new sort of exoticism. The strangeness that's produced does not inhere in the culture or world of the peoples represented. This exoticism is different from earlier varieties—romantic, Orientalist, and poetic—for what has become irreducibly curious is no longer the other but cultural description itself.

79. Rabinow, "Representations Are Social Facts," 249–50.

80. See Barthes, "Surrealists Overlooked the Body," in *The Grain of the Voice: Interviews 1962–1980*, 245.

81. The Barthesian epigraph, concerning interdisciplinarity and the derivation of a "new object" at the head of Clifford's essay "Partial Truths," is followed a few pages later by a claim that "ethnography is an emergent interdisciplinary phenomenon" (p. 3). Such a claim is, however, predicated on a deliberate denial of its disciplinary attributes, also clearly overlooked in statements such as "Ethnography is actively situated *between* powerful systems of meaning. It poses its questions at the boundaries of civilizations, cultures, classes, races, and genders. Ethnography decodes and recodes, telling the grounds of collective order and diversity, inclusion and exclusion. It describes processes of innovation and structuration, and is itself part of these processes" (p. 2–3). No attempt is made to qualify the list of declarations with probing questions concerning who might control the ethnographic decoding and recoding and to what purposes one could use such processes of innovation and structuration. Furthermore, the genealogy of this uncritical disciplinary optic is traced to a diverse group of academics that include no women, persons of colour, or artists. There is no question, in other words, that interdisciplinarity is, in this case, conceived in relation to male-dominated disciplinary strategies and that their epideictic surfaces are preserved within the covers of the book, *Writing Culture*:

This complex interdisciplinary area, approached here from the starting point of a crisis in anthropology, is changing and diverse. Thus I do not want to impose a false unity on the exploratory essays that follow. Though sharing a general sympathy for approaches combining poetics, politics, and history, they frequently disagree. Many of the contributions fuse literary theory and ethnography. Some probe the limits of such approaches, stressing the dangers of estheticism and the constraints of institutional power. Others enthusiastically advocate experimental forms of writing. But in their different ways they all analyze past and present practices out of a commitment to future possibilities. They see ethnographic writing as changing, inventive... (p. 3).

82. One notes that Clifford does not explore differences between interdisciplinary, hybrid and creolized activities in any definitive detail. Moreover, his understanding of hybridity is erroneously based on the projection of homogeneous disciplinary activity (disguised in terms of avant-garde practices of writing) across disciplinary boundaries: “Ethnography is hybrid textual activity: it traverses genres and disciplines.” See Clifford, “Partial Truths,” 26.
83. Gregory Bateson, “Comment on Part II,” in *Steps to an Ecology of Mind* (New York: Ballantine Books, 1972), 153–54; and Clifford, “Ethnographic Surrealism,” 147.
84. See Tomas, “Tools of the Trade.”
85. Gregory Bateson, “Pidgin English and Cross-Cultural Communication,” *Transactions of the New York Academy of Sciences* 6 (1944): 141.
86. *Ibid.*, 139.
87. Having said this, one must also heed Franz Fanon’s warning that communication in pidgin does not necessarily imply equality between speakers. As Fanon points out in *Black Skin, White Masks*:
- To speak pidgin to a Negro makes him angry, because he himself is a pidgin-nigger-talker. But, I will be told, there is no wish, no intention to anger him. I grant this; but it is just this absence of wish, this lack of interest, this indifference, this automatic manner of classifying him, imprisoning him, primitivizing him, decivilizing him, that makes him angry (p. 32).
- Accordingly, one must therefore remain vigilant as to the actual dangers and difficulties of conceiving third cultures in terms of colonial linguistic paradigms. Although creolization is a fruitful point of departure for addressing the possibility of critical oppositional activities, one must not forget that the creole’s linguistic master was and is *Homo occidentalis*.
88. Lee Drummond, “The Cultural Continuum: A Theory of Intersystems,” *Man* (N.S.) 15 (1980): 372.
89. *Ibid.*, 370.
90. Umberto Eco, *Semiotics and the Philosophy of Language* (London: Macmillan Press, 1984), 223.
91. Martin Jay distinguishes between a dominant Cartesian ocular regime—perspectivalism—and two other moments of “unease” in this dominant regime: one associated with the descriptive naturalism of Dutch seventeenth century ‘topographic’ vision and the other associated with the visual ecstasies of Baroque vision. While one must remain cautious as to their ultimate coherence as regimes, Jay’s comments on “the virtues of differentiated ocular experiences” and the “possibilities opened up by the scopic regimes we have already invented and the ones, now so hard to envision, that are doubtless to come” suggest that ‘envisioning’ is, as yet, an unexplored contemporary problem. Martin Jay, “Scopic Regimes of Modernity,” in *Vision and Visuality: Dia Art Foundation Discussions in Contemporary Culture*, No. 2., ed. Hal Foster (Seattle: Bay Press, 1988), 16, 20.
92. See chapter 1.1.

93. Michel Foucault, "Of Other Spaces," trans. Jay Miskowicz, *Diacritics* 16, no. 1 (1986): 22.
94. Said, "Representing the Colonized," 211.
95. *Ibid.*, 212.
96. Jay, "Scopic Regimes," 20.
97. Said, "Representing the Colonized," 224.

#### CHAPTER 2.I THE RITUAL OF PHOTOGRAPHY

1. Edmund R. Leach, *Culture and Communication: The Logic by which Symbols are Connected*. (Cambridge: Cambridge University Press, 1976), 78.
2. Victor Turner, "Betwixt and Between: The Liminal Period in *Rites de Passage*," in *Reader in Comparative Religion: An Anthropological Approach*, 3d ed., ed. William A. Lessa and Evon Z. Vogt (New York: Harper & Row, 1972), 338, 340.
3. Edmund R. Leach, "Ritualization in Man in Relation to Conceptual and Social Development," in *Reader in Comparative Religion: An Anthropological Approach*, 3d ed., ed. William A. Lessa and Evon Z. Vogt (New York: Harper & Row, 1972), 334.
4. Arnold Van Gennep, *The Rites of Passage*, trans. Monika B. Vizedom and Gabrielle L. Caffee (Chicago: University of Chicago Press, 1960), 13–14.
5. *Ibid.*, 4–9.
6. *Ibid.*, 12.
7. Mary Douglas, "Pollution," in *Reader in Comparative Religion: An Anthropological Approach*, 3d ed., ed. William A. Lessa and Evon Z. Vogt (New York: Harper & Row, 1972), 200.
8. Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*, (New York: Praeger, 1966), 121.
9. The notation  $\equiv$  is used in this chapter as a symbol for "is visually identical to."
10. John Berger and Jean Mohr, *A Seventh Man* (Harmondsworth: Penguin Books, 1975), 13.
11. C. E. M. Joad, *Mind and Matter: The Philosophical Introduction to Modern Science* (New York: G. P. Putnam's Sons, 1925), 47.
12. Jean Piaget, *The Construction of Reality in the Child*, trans. Margaret Cook (New York: Basic Books, 1954), 3–96.
13. Jack Burnham, *The Structure of Art*, rev. ed. (New York: George Braziller, 1973), 45.

14. Ibid.
15. Douglas, *Purity and Danger*, 38.
16. Claude Lévi-Strauss, "Postscript to Chapters III and IV," in *Structural Anthropology*, trans. Claire Jacobson and Brooke Grundfest Schoepf (New York: Basic Books, 1963), 95.
17. Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken Books, 1969), 220.
18. Ibid., 224–26.
19. See Leach, *Culture and Communication*, 45.
20. Douglas, *Purity and Danger*, 35.
21. Van Gennep, *The Rites of Passage*, 20.
22. See Edwin H. Land, "Absolute One-Step Photography," *Photographic Science and Engineering* 16, no. 4 (1972): 247.
23. For a discussion of the Kodak camera, see Reese V. Jenkins, *Images and Enterprise: Technology and the American Photographic Industry, 1839–1925* (Baltimore: Johns Hopkins University Press, 1975), 112–17.
24. The direct positive daguerreotype (1839) and the positive wet collodion processes (1851) were also 'site' bounded, but for different reasons. As processes they both proved to be chemically sensitive and perishable. The preparation and development of the prints were also restricted to the photographic site; as a result they proved technically complex and were therefore out of the range of competency of most 'amateur' photographers. The introduction of the dry plate process in the late 1870s opened the way for 'amateur' participation in the photographic ritual by releasing the photographer from on-the-site development. The site consequently became deritualized in proportion to the rise in the autonomy of the rites of passage. (The territorial passage associated with the darkroom could be relocalized away from the photographic site.) The SX-70 represents a return to the earlier photographic context, but it is no longer similarly constrained. It represents a 'choice' while creating a modified ritual structure.
25. Edwin H. Land, "A New One-Step Photographic Process," *Journal of the Optical Society of America* 37, no. 2 (1947): 63.
26. Figure 2 is reproduced with the permission of the Polaroid Corporation.
27. Portable darkrooms were associated with both the daguerreotype and wet collodion processes. See Jenkins, *Images and Enterprise*, 17, fig. 1.13; 40, fig. 2.4.
28. See C. B. Neblette, *Photography: Its Materials and Processes*, 5th ed. (Toronto: D. Van Nostrand, 1952), 234–35.
29. See Kurt I. Jacobson and Ralph E. Jacobson, *Imaging Systems: Mechanisms and Applications of Established and New Photosensitive Processes* (New York: John Wiley and Sons, 1976), 86–87.

30. Edwin H. Land, "If you are able to state a problem it can be solved," *Life* (October 27 1972): 48.
31. See Edwin H. Land, "Absolute One-Step Photography," *Photographic Journal* 114 (1974): 338–45.
32. See Jenkins, *Images and Enterprise*, 112, 115.
33. See Allan Porter, ed., "A Concise Chronology of Instant Photography: 1947–1974," *Camera* (October 1974): 29.
34. Land, "Absolute One-Step Photography," 342.
35. Land, "If you are able to state a problem," 48.
36. Van Gennep, *The Rites of Passage*, 189.

## 2.2 A MECHANISM FOR MEANING: A RITUAL AND THE PHOTOGRAPHIC PROCESS

1. Pierre Bourdieu et al., *Photography: A Middle-brow Art*, trans. Shaun Whiteside (Cambridge: Polity Press, 1990), 77.
2. Susan Sontag, *On Photography* (New York: A Delta Book, 1978), 172.
3. *Ibid.*, 178–79.
4. See Bourdieu et al., *Photography: A Middle-brow Art*, for class, profession and group oriented sociological analyses of photography in French society.
5. Robert Castel, "Images et phantasmes," in *Un Art Moyen : Essai sur les usages sociaux de la photographie*, 2d ed. (Paris: Les Editions de Minuit, 1974), 290–91. This article was not included in the English edition of *Un Art Moyen (A Middle-brow Art)*. Translation by Timothy Barnard
6. Marshall McLuhan, *Understanding Media: The Extensions of Man*, 2d ed. (New York: A Mentor Book, 1964), 171.
7. Walter Benjamin, *Illuminations*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken Books, 1969), 219.
8. See Gisèle Freund, *Photography and Society* (Boston: David R. Godine, 1980), 8–18.
9. John Berger, *About Looking* (New York: Pantheon Books, 1980), 57.
10. Benjamin, *Illuminations*, 224–26.
11. Emile Durkheim, *The Elementary Forms of the Religious Life* (London: George Allen & Unwin Limited, 1954), 119–23.
12. See, for example, Freund, *Photography and Society*, 20.
13. Benjamin, *Illuminations*, 224.



14. See Castel, “Images et phantasmes,” 330.
15. See Bourdieu et al., *Un Art Moyen/A Middle-brow Art*; Sontag, *On Photography*; Berger, *About Looking*; Roland Barthes, *Image—Music—Text*, trans. Stephen Heath (Glasgow: Fontana/Collins, 1977); and Roland Barthes, *La Chambre Claire : Note sur la Photographie* (Paris: Cahiers du Cinéma, Gallimard, Le Seuil, 1980).
16. Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (London: Flamingo/Fontana, 1984), 26–27.
17. *Ibid.*, 27–28.
18. *Ibid.*, 27.
19. See, for example, Barthes, “The Photographic Message” and “Rhetoric of the Image” in *Image—Music—Text*.
20. The concept ‘subject’ is used as an empty category throughout the chapter to denote the ‘subject’ of each photograph, abstracted as a *general* state—that which is *conventionally* photographed and which produces an image on the emulsion: the object of photographic activity. The subject and the image are therefore interchangeable terms.
21. Barthes, “Rhetoric of the Image,” 44.
22. Barthes, “The Photographic Message,” 15.
23. Bourdieu et al., *A Middle-brow Art*, 6–7.
24. Barthes, “The Photographic Message,” 19, 31, 28–31.
25. See chapter 2.1 for the first basic articulation of the equation and ritual production structure.
26. Benjamin, *Illuminations*, 219.
27. Berger, *About Looking*, 51.
28. The notation  $\equiv$  is used in this chapter as a symbol for “is visually identical to.” The term Light  $\equiv$  Absence is used as a sign, the positive photographic print, in contrast to Absence  $\equiv$  Light, which is the sign of that portion of the permutation equation, the latent positive state, that is articulated by the rite of aggregation portion of the rites of passage. At the level of denotation the signs are interchangeable, their elements are considered isomorphic, and symbolically the signs denote the absence of the subject in the conventional sense. However, within the connotative dimension, because of the linear sequencing reversal of the signifier/signified relationship, an emphasis (in the sense of a chemical marking) is placed on the first term of each possible structural sequence: *signifier/signified* or *signified/signifier*. This semantic marking or left/right displacement can be illustrated by reference to the photographic process.  
  
Absence  $\equiv$  Light, as stated in this chapter, connotes an impermanence, a movement *away from a light stasis*, a passing from view (a negative light stasis or darkness) as visually equivalent to order, the

electromagnetic spectrum, as mediator of vision in the form of the means to reveal to the eye (a presence). Physically this contradiction finds its sign in the latent positive state, conventionally identified as the latent presence of a subject state within the photographic process. In contrast Light  $\equiv$  Absence connotes an order, a revealing by the electromagnetic spectrum, the mediator of vision (a presence), as visually equivalent to its absence, an impermanence, a passing from view, a negative light stasis (darkness). Physically the contradiction finds its sign in the final positive print—a chemical light with the full connotations of the production and viewing strategies at its base. It can be argued that the Absence  $\equiv$  Light/Light  $\equiv$  Absence isomorphism is displaced by a concrete and visual emphasis (a marking) of the first term in the sign structure in its present linear formulation. In the first case the signified (absence) is marked, in the second the signifier (light). This emphasis is substantiated by a *physical* absence of a conventional subject in the latent positive state in contrast to its presence in terms of a chemical *light* revealed by *light* in the final positive print. Given the nature of the marking, a different type of comprehension has to be applied to each sign. In the first case the latent image is comprehended, understood to exist because of additional knowledge—optical, mechanical and chemical—involved in the understanding of the physical process. In the second case the subject is understood within a sociocultural matrix surrounding the mimetic articulation of two-dimensional surfaces.

29. Barthes, *Camera Lucida*, 115.

30. *Ibid.*, 113, 115.

31. *Ibid.*, 117.

32. Photographic 'light,' in contrast to light as it is understood within the convention of visual knowledge as used at the beginning of this section, is that area of the electromagnetic spectrum to which the chemical emulsion is sensitive. The two uses of 'light' do not necessarily coincide. However, the fact that the emulsion reveals a photographic 'light' to light as the agent of visual knowledge is understood as meaning either that it expands or it restricts visual knowledge, in terms of the ability of the emulsion to be sensitized by more or less of the electromagnetic spectrum than the human retina (which is understood as the bracket for the use of light as a mediator of visual knowledge).

33. See Edmund R. Leach, *Culture and Communication: The Logic by which Symbols are Connected*, (Cambridge: Cambridge University Press, 1976), 78.

34. For a discussion of these manipulations, see "The Photographic Message," 21–25.

35. *Ibid.*, 16–17.

36. *Ibid.*, 19.

37. Barthes, *Camera Lucida*, 88–89.

38. André Bazin, "The Ontology of the Photographic Image," in *What is Cinema?* vol. 1, trans. Hugh Gray (Berkeley: University of California Press, 1967), 14.

39. Barthes, "Rhetoric of the Image," 44.

40. Benjamin, *Illuminations*, 222.
41. Bazin, "The Ontology of the Photographic Image," 16.
42. *Ibid.*, 14.
43. Barthes, "Rhetoric of the Image," 45.
44. Hubert Damisch, "Five Notes for a Phenomenology of the Photographic Image," *October* 5 (1978): 72.
45. Barthes, "Rhetoric of the Image," 44.
46. Craig Owens, "Photography *en Abyme*," *October* 5 (1978): 73–88.
47. Lewis Carroll [Charles Lutwidge Dodgson], *Through the Looking-Glass, and What Alice Found There* (London: Macmillan and Company, 1872), 10–12.
48. Edmund Carpenter, "The Tribal Terror of Self-Awareness," in *Principles of Visual Anthropology*, ed. Paul Hockings (The Hague: Mouton, 1975), 453.
49. Leon Battista Alberti, *On Painting*, rev. ed., trans. John R. Spencer (New Haven: Yale University Press, 1966), 64.
50. See Bazin, "The Ontology of the Photographic Image," 12 (n).
51. *Ibid.*, 13–14.
52. Joan Gadol, *Leon Battista Alberti: Universal Man of the Early Renaissance* (Chicago: University of Chicago Press, 1969), 67–68.
53. Jean-Louis Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," *Film Quarterly* 28, no. 2 (1974–75): 39–47. It must be noted that Baudry's use of the term 'subject' functions at a different level of analysis; in his words: "We understand the term 'subject' here in its function as vehicle and place of interaction of ideological implications which we are attempting progressively to make clear, and not as the structural function which analytic discourse attempts to locate. It would rather take partially the place of the ego, of whose deviations little is known in the analytic field" (p. 46, n. 6). The apparent origins of Baudry's 'subject' in psychoanalytic discourse (see pp. 44–46) points to the orientation of his analysis toward the area of the pragmatic dimension of semiosis. In contrast, the predominantly syntactic approach developed in this chapter has necessitated a *provisional* suppression of the 'subject' as a locus of, in this case, cinematographic 'effects' in favour of a subject understood as an abstracted and general state (the object of photographic activity).
54. *Ibid.*, 41–42.
55. Clifford Geertz, "Ideology as a Cultural System," in *Ideology and Discontent*, ed. David E. Apter (New York: The Free Press; London: Collier-Macmillan Limited, 1964), 63, 64.
56. Baudry, "Basic Cinematographic Apparatus," 46.

57. Alberti, *On Painting*, 63.
58. Freund, *Photography and Society*, 10.
59. Baudry, "Basic Cinematographic Apparatus," 45.
60. Karl Marx and Friedrich Engels, *The German Ideology: Parts I & III* (New York: International Publishers, 1947), 14.
61. Karl Mannheim, *Ideology and Utopia*, trans. Louis Wirth and Edward Shils (New York: Harcourt, Brace & World, 1970), 265–66.
62. *Ibid.*, 96, 97.
63. *Ibid.*, 192.

### 2.3 TOWARD AN ANTHROPOLOGY OF SIGHT: RITUAL PERFORMANCE AND THE PHOTOGRAPHIC PROCESS

1. Victor Turner, "Frame, Flow and Reflection: Ritual and Drama as Public Liminality," in *Performance in Postmodern Culture*, ed. Michel Benamou and Charles Caramello (Madison, Wis.: Coda Press Incorporated, 1977), 33.
2. Barbara A. Babcock, "Reflexivity: Definitions and Discriminations," *Semiotica* 30, no. 1/2 (1980): 5.
3. *Ibid.*, 6.
4. *Ibid.*, 5.
5. See James W. Fernandez, "Reflections on Looking into Mirrors," *Semiotica* 30, no. 1/2 (1980): 27–39; Barbara Myerhoff and Deena Metzger, "The Journal as Activity and Genre: Or Listening to the Silent Laughter of Mozart," *Semiotica* 30, no. 1/2 (1980): 97–114; and Roy A. Rappaport, "Concluding Comments on Ritual and Reflexivity," *Semiotica* 30, no. 1/2 (1980): 184.
6. Barbara A. Babcock, "Too Many, Too Few: Ritual Modes of Signification," *Semiotica* 23, no. 3/4 (1978): 298.
7. Emile Durkheim, "Individual and Collective Representations," in *Sociology and Philosophy* (New York: The Free Press, 1974), 2; and Emile Durkheim, *The Rules of Sociological Method*, ed. Stephen Lukes, trans. W. D. Halls (New York: The Free Press, 1982), 40. 'Collective representation' will be considered from cognitive and expressive points of view. Photography, for example, displays an ocular mode of sense perception which can be considered to be expressed in the form of photographic cameras. These cameras can also be considered to function as the means by which a form of cultural vision can enter into a reflexive relationship with itself. This chapter will address the type of ritual context by which this relationship can be established. For a discussion of the principal concepts Durkheim used in his work, see Steven Lukes, *Emile Durkheim: His Life and Work—A Historical and Critical Study* (London: Allen Lane, The Penguin Press, 1973), 4–30; and his introduction to Durkheim, *Rules of Sociological Method*, 1–27.

8. Durkheim, "Individual and Collective Representations," 32, 31. In Durkheim's sociological topography, *social facts* were the empirical realities which, by their objective independence 'as things' and *collective* characteristics, were amenable to *sociological* analysis, as opposed to individually oriented psychological analysis. Durkheim argued that they could be characterized by the qualities of 'externality' and 'generality.' He noted that they could function as a method of social constraint, or as an attractive force signifying, for example, a common good. By these means certain collective practices or internalized ideals could operate on the particular individual. These social facts would find expression along a continuum which he characterized as more or less crystalline—that is, institutional. In its most crystalline state, the continuum would be composed of 'morphological' or 'structural' phenomena that would include demographic, architectural, or communicative patterns of social consolidation. In its least rigid form, the continuum would be composed of 'free social currents' that would find collective expression in the fluctuations of public opinion, etc., which had not yet found a definite social arrangement. In between these two poles, Durkheim posited the manifestation of institutionalized norms or rules associated with various domains of social knowledge. These could consist, for example, of the legal, moral, religious, and financial domains. These culturally variable social facts also constituted, in his words "... any way of acting, whether fixed or not, capable of exerting over the individual an external constraint; or: which is general over the whole of a given society whilst having an existence of its own, independent of its individual manifestations" (see Durkheim, *Rules of Sociological Method*, 59). For a discussion of the various problems arising from Durkheim's admittedly provisional formulation of *social facts*, see Lukes, *Emile Durkheim*, 8–15) and his introduction to *The Rules of Sociological Method*, 3–5. For a cogent critique of the ideological assumptions underlying Durkheim's conception of an 'objective,' 'non-political,' and 'scientific' sociology, see Lukes, "Introduction," in *The Rules of Sociological Method*, 11–23. For an alternative, actor-oriented discussion of the problems of the interpretation of interpretation, in the case of anthropology, see chapter 1, "Thick Description: Toward an Interpretive Theory of Culture," in Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973). His discussion underscores the importance of reading social actions and actor-oriented interpretations of those actions. Lukes, on the other hand, has argued in his Introduction to Durkheim's *The Rules of Sociological Method*, "Whatever its shortcomings, Durkheimian dogma has proved a remarkably productive and progressive research programme" (p. 18). This chapter will approach Durkheim's historical contribution to the study of culture in this spirit, and it will seek to reflect its subject from certain facets of his thought in order to gain a broader understanding of the cultural dimensions of the photographic process.
9. Durkheim, *Rules of Sociological Method*, 41.
10. J. G. Peristiany, "Introduction," in *Sociology and Philosophy* (New York: The Free Press, 1974), xxii.
11. Edmund R. Leach, *Culture and Communication: The Logic by which Symbols are Connected*, (Cambridge: Cambridge University Press, 1976), 45.
12. Victor Turner, "Symbols in Ndembu Ritual," in *The Forest of Symbols: Aspects of Ndembu Ritual* (Ithaca: Cornell University Press, 1970), 30.

13. Talcott Parsons, "The Life and Work of Emile Durkheim," in *Sociology and Philosophy* (New York: The Free Press, 1974), liv. Parsons observes, for example, that "The essential conclusion of Durkheim's thinking is that for the sociologist the boundary between 'individual' and 'society' cannot be that of common sense. If we interpret the former concept as something like the human personality, it must *include* a sector of the social system, more specifically, the normative aspect of that system, the *shared* beliefs and sentiments that constitute the *conscience collective*. By this path Durkheim arrived at the crucially important view that essential elements of culture and social structure are *internalized* as part of the personality of the individual."
14. Victor Turner, "Social Dramas and Stories about Them," *Critical Inquiry* 7, no. 1 (1980): 162–63.
15. See Victor Turner, *The Ritual Process: Structure and Anti-Structure* (Ithica: Cornell University Press, 1977); Turner, *The Forest of Symbols*; Turner, "Frame, Flow and Reflection"; Turner, "Variations on a Theme of Liminality," in *Secular Ritual*, ed. Sally Moore and Barbara Myerhoff (Amsterdam: Van Gorcum, 1977); and Turner, "Social Drama."
16. See Turner, "Symbols in Ndembu Ritual" and "Themes in the Symbolism of Ndembu Hunting Ritual," in *The Forest of Symbols*, 19–47, 280–98.
17. Arnold Van Gennep, *The Rites of Passage*, trans. Monika B. Vizedom and Gabrielle L. Caffee (Chicago: University of Chicago Press, 1960).
18. Turner, "Social Dramas," 164–65.
19. Parsons, "Emile Durkheim," liv. Parsons uses these words in connection with Durkheim's *Conscience collective*, but they also apply in the present case.
20. Turner, "Frame, Flow and Reflection," 40.
21. Babcock, "Too Many, Too Few," 291.
22. William M. Ivins, "On the Rationalization of Sight," in *On the Rationalization of Sight: With an Examination of Three Renaissance Texts on Perspective* (New York: Da Capo Press, 1975), 8. In a footnote Ivins continues:

In thinking about symbols it is necessary to remember that while some symbols are defined by their references, other references are defined by their symbols. The more closely a highly organized and purely conceptual subject, such as mathematics, defines its symbols, the wider is the range of variation that may be introduced into the physical forms of the symbols without effecting change in their signification. The more closely symbols (e.g. pictures) define unorganized and concrete subjects, such as the materials of visual sense awarenesses, the narrower is the range of variation that may be introduced into the physical forms of the symbols without effecting change in their signification. Thanks to the pictorial symbol's sensuously immediate definition of its reference, it is basic for many of the recognitions of similarity which must be made before practical knowledge or science is possible (p. 8–9, n. 5).

## 23. Ibid, 7.

In order to have ideas about the returns given us about nature by our five senses, it is necessary to have some system of symbols by which to represent those returns and some grammar or rule by which those symbols are given logical relationships. Lacking such symbols, or a grammar for their use, the task of thinking becomes too onerous to be carried very far. A symbol that cannot be exactly duplicated, or, what comes to the same thing, a symbol that of necessity undergoes fortuitous changes of meaning in the course of repetition or duplication, is of very limited usefulness. A system of symbols without logical schemes, both for its interrelations and combinations within itself and, if it symbolize external fact, for its two-way, or reciprocal, correspondence with that external fact, is also of very limited usefulness. However interesting or important such symbols or series of symbols may be for personal intuition they obviously have little or no value for rationalization.

## 24. Ibid., 9.

25. Ibid. It must be noted that the question of the exact epistemological nature of pictorial symbols in their photographic form is not at issue in this chapter. Instead, the chapter focuses on the means of articulation of these symbols, and specifically on the process of production in terms of which they are to be rendered *immutable* and by means of which they can be *duplicated*.

26. For a discussion of the gradual codification of this technique, see Samuel Y. Edgerton, *The Renaissance Rediscovery of Linear Perspective* (New York: Icon Editions, 1976). Edgerton emphasizes the “realism” of the early use of geometric linear perspective, which he understands to be linked to an “aesthetic experience” (p. 56). In his view, “Visual truth in a picture does not depend upon correct perspective *per se*, but upon the basic moral and philosophical priorities of the civilization itself.” He goes on to point out that “These are the ‘realities’ appropriate to pictures in any given culture” (p. 59). Thus, Renaissance perspective came to order a symbolic representation by creating a “sense of harmony with natural law, thereby underscoring man’s moral responsibility within God’s geometrically ordered universe” (p. 56). As Ivins points out, however, in his discussion of linear perspective, “The most marked characteristics of European pictorial representation since the fourteenth century have been on the one hand its steadily increasing naturalism and on the other its purely schematic and logical extensions” (Ivins, “On the Rationalization of Sight,” 12). Edgerton’s “realism” and Ivins’s “naturalism” might, however, also serve to distinguish the presence of two opposing figures of authority in the history of Western representation. The one would be a transcendent God, and the other could be ‘Rational or Scientific Man.’ These might alternatively have been accorded authoritative priority by a culture or a dominant group within that culture as a means of socializing individuals into their collective practices or social ideals. For further details regarding the differences between a tactile-muscular and a visual intuition of space, see William M. Ivins, *Art and Geometry: A Study in Space Intuitions* (New York: Dover Publications, 1964).

27. Ivins, “On the Rationalization of Sight,” 9–10.

28. See Louis Jacques Mandé Daguerre, *An Historical and Descriptive Account of the Various Processes of the Daguerreotype and the Diorama*, by Daguerre, facsimile of McLean and Giroux editions (1839), introd. Beaumont Newhall (New York: Winter House Limited, 1971), McLean ed., 22. Here we find the following passage from a report by Dominique François Arago to the French Chamber of Deputies on July 3, 1839, which provides a good example of the special position photography would immediately occupy in the representational culture of the period:

To copy the millions and millions of hieroglyphics with which even the outside of all the great monuments of Thebes, Memphis, etc., are covered, scores of years, and whole legions of painters would be required. One individual, with a Daguerreotype, would effect the labour in a very short space of time. Provide the Institute of Egypt with two or three sets of apparatus, and in several of the large plates of the celebrated work, the fruits of our immortal expedition, vast extents of real hieroglyphics will soon replace the fictitious ones; and the drawings will everywhere surpass in copy and local colour the works of the most skilful painters; and the photographic pictures being submitted in their formation to the rules of geometry, will allow us, with the assistance of a very few further data, to attain the exact dimensions of the highest parts of edifices and of those most difficult of access.

29. See, Oliver Wendell Holmes, "Sun-Painting and Sun-Sculpture; with a stereoscopic trip Across the Atlantic," *The Atlantic Monthly* 8, July (1861): 13.
30. Edmund Carpenter, "The Tribal Terror of Self-Awareness," in *Principles of Visual Anthropology*, ed. Paul Hockings (The Hague: Mouton, 1975), 461.
31. Oliver Wendell Holmes, "The Stereoscope and the Stereograph," *The Atlantic Monthly* 3, June (1859): 739.
32. Fernandez, "Looking into Mirrors," 36, 37.
33. Richard Rudisill, *Mirror Image: The Influence of the Daguerreotype on American Society* (Albuquerque: University of New Mexico Press, 1971), 238. The daguerreotype photographic process was a direct positive process in active use from 1839 to approximately 1860. Its distinctive feature consisted of the production of an image on a highly polished silver plated copper plate, in contrast to the use of paper, glass, or celluloid as a means of support for the photosensitive chemicals.
34. A different view on this relationship is proposed by George Wald in "Eye and Camera," in *Perception: Mechanisms and Models*, ed. Richard Held and Whitman Richards (San Francisco: W. H. Freeman, 1972). Wald notes that this represents a case of "convergent evolution." He goes on to point out, however, that it is "peculiar in that the one evolution is organic, the other technological" (p. 94).
35. The two instruments also differ in a number of other significant details. These include the rigidity of the eyeball's form, which is the result of internal fluid pressure, in contrast to the mechanical rigidity and hollowness of the conventional photographic camera, and the curvature of the retina versus the predominant use of a flat photochemical surface in the case of the camera. For a complete description of the human eye,



in particular the function of the retina, see M. H. Pirenne, *Optics, Painting and Photography* (Cambridge: Cambridge University Press, 1970), 24–25. The question of the similarity of the two devices, however, is fraught with difficulties. These include the biological integration of the human eye, the synthetic quality of binocular vision, and the complex structure of the retina when considered, for example, from the points of view of centre versus peripheral or day and night vision; not to mention the equally difficult question of normal versus abnormal vision. Pirenne, for instance, has also pointed out that “the human eye and the photographic camera both are built on the principle of the camera obscura... One should not be misled by this similarity between them. Their purposes are different. While photographs are intended to be looked at, retinal images are not. The photographic camera is not an eye” (p. 50). And furthermore, “the retina may be regarded as a very complex, light-sensitive expansion of the optic nerve, and thus of the brain itself” (p. 25).

While accepting the points made by Pirenne, it must also be noted that the position explored in this chapter concerns the possibility of the existence of a *culturally created* formal and symbolic relationship between the two types of eyes. It would involve the forging and sanctioning of a symbolic correspondence between the two, within the context of a ritual process of production, rather than the psychophysiological question of the formation of a synthetic vision at the level of the individual organism. One could also argue that this type of collective/individual linkage would be forged from a collective as opposed to an individual point of view, although it would be conceived in terms of the individual.

A linkage between the eye and the photographic process could also prove of further interest in that it would serve as an example of the articulation of an element of body symbolism in the history of the technology of Western representation. A correspondence between the two could also pave the way toward a *poetics of technology* and an *anthropology of sight*.

36. The term ‘biological eye’ refers only to the human eye conceived as an optical instrument *mediating* sight. In this case, the retina can be understood to provide the common interface with the brain. On this point, see Pirenne, *Optics, Painting and Photography*, 25.
37. When used in connection with the photographic process, the term ‘light’ covers two overlapping zones of photochemical sensitivity. The first zone covers that area of the electromagnetic spectrum to which the human retina is sensitive. In this case, the sensitivity of the retina is also limited by the overall optical condition of the ‘dioptric apparatus’ of the biological eye. The second zone covers that area of the electromagnetic spectrum to which the various photochemical emulsions prove to be sensitive, and it is also constrained by the optical quality of the camera lens. The former zone would serve to delimit the boundary of visual knowledge by bracketing the overall sensitivity of the biological eye and, in particular, its retina to the photochemical actions of light rays. The latter zone, in contrast, would be defined by ‘chemical light’ which, in turn, would be bracketed by the particular photochemical sensitivity of a given emulsion to the photochemical action of light rays. In all these cases, it is not only the area but also the degree of sensitivity to particular wavelengths of the electromagnetic spectrum that would serve to define the particular characteristics of light. In the case of photography, the compound nature of light would be defined in terms of the relationship between biological eyes (belonging to producers and viewers)

and the particular historical elements constituting the functional structure of any given example of the mechanical eye. This relationship would be articulated in the context of the photographic rites of passage. A particular photograph would therefore be the product of the idiosyncratic manipulation of that collective process.

38. See, for example, Barthes's classic texts, "The Photographic Message" and "Rhetoric of the Image," in *Image—Music—Text*, trans. Stephen Heath (Glasgow: Fontana/Collins, 1977). This particular sequence of operations will be taken as the model for the following discussion. It should be understood, however, that different photochemical processes will produce different characteristics for a photographic ritual. This is in keeping with the view that the symbolic content of a ritual is largely independent of its overall form.
39. This notion of 'process' appears to duplicate William Crawford's conception of "photographic syntax": "In photography, the syntax is technology. It is whatever combination of technical elements is in use. The combination determines how well the technology can see and thus sets the limits on what photographers can communicate through their work." See William Crawford, *The Keepers of Light: A History and Working Guide to Early Photographic Processes* (New York: Morgan and Morgan, 1979), 7.  
  
In contrast to Crawford's emphasis on a syntax directed toward the production of acceptable photographic images, the present approach is directed toward developing a cultural model of the photographic process. It is therefore concerned with *the production of images in a culture* as opposed to a *culture of images*.
40. For a history of the American photographic industry see, Reese V. Jenkins, *Images and Enterprise: Technology and the American Photographic Industry, 1839–1925* (Baltimore: Johns Hopkins University Press, 1975).
41. The ritual dimension of the photographic process could be understood to function as a 'frame' or boundary, which would act to contain the kaleidoscopic pattern of its various fragments in their spatio-temporal dispersion. Correspondingly, the fragmentation of the role of the photographer, across the selfsame pattern, would also be unified in relation to the tripartite ritual process. For an example of the application of the rites of passage to the polaroid process, see chapter 2.1. For an important example of the spatio-temporal extension of the rites of passage ceremony, see Audrey Richards, *Chisungu: A Girl's Initiation Ceremony among the Bemba of Zambia* (London: Tavistock Publications, 1982). Richards points out that the ceremony which she attended in 1931 lasted for over a month and that formerly, the rites would have been spread over six months or more (p. 55). She goes on to note the spatial dispersion of the rites (for a full description of the ceremony, see pp. 60–111).
42. For a discussion of the image-forming characteristics of cameras with pinhole apertures and those with optical lenses, see Pirenne, *Optics, Painting and Photography*, 13–24, 46–50.
43. A similar relationship would also exist in the case of the biological eye.
44. What constitutes a 'conventional photograph' in any given sociocultural situation is a question which can only be answered by developing a historical or contemporary, institutionally oriented definition. It would

have to be negotiated in terms of the particular elements informing the ‘role of the photographer,’ the ‘photographic process of production,’ and an economy based on the ‘process of symbolization’ forged in the context of the historical trajectory of a ‘rationalization of sight.’ That negotiation would also have to take place within the confines of a well defined spatio-temporal context.

45. Claude Lévi-Strauss, “The Effectiveness of Symbols,” in *Structural Anthropology*, trans. Claire Jacobson and Brooke Grundfest Schoepf (New York: Basic Books, 1963), 198.
46. *Ibid.*, 200. Lévi-Strauss’s definition of ‘symbol’ is also implied in Ivens’s use of the same term. Although Ivens does not provide a definition, he does implicitly define it by means of the distinctions he makes in the different modes by which they can be rendered equivalent to their referents. His discussion also implies a distinction between different orders of reality.
47. For further details regarding this transformation, see chapter 2.2. The *Sequence of Reproduction* represents a formalization of the viewing strategy in relation to the production strategy, which was not made in chapter 2.2. It also serves to illustrate an isomorphism between the productive transformation of the symbolic classification and a hypothetical process of re-production by means of which it can be understood to reverse or reconstruct the original sequence of production. This transformation serves to mark the position of a third subject, the viewer, doubling *in place* of the role of the photographer.
48. This interpretation of Genesis is based on Gregory Bateson’s “The Science of Mind and Order,” in *Steps to an Ecology of Mind* (New York: Ballantine Books, 1972), xxi-xxvi. Bateson’s account constitutes an interesting argument for the relations that can be drawn between this myth and the fundamental principles of modern science. Rationalism, in this case, as in the case of the photographic process, could be defined in these distinctive, dualistic, *reproducible* (and therefore *permanent*) terms. For a similar discussion that focuses on the importance of a principle of distinction or separation in relation to a double creation, of light on the first day and of the sun on the fourth day, see Leo Strauss, “On the Interpretation of Genesis,” *L’Homme* 21, no. 1 (1981): 5–20. Strauss also discusses related questions concerning place and local motion.
49. Claude Lévi-Strauss, “The Sorcerer and His Magic,” in *Structural Anthropology*, trans. Claire Jacobson and Brooke Grundfest Schoepf (New York: Basic Books, 1963), 180–81.
50. Lévi-Strauss, “The Effectiveness of Symbols,” 203.
51. *Ibid.*, 204.

### 3.1 PHOTOGRAPHY AND SEMIOTICS: BEYOND THE LIMITS OF AN EXISTING RELATIONSHIP

1. Roland Barthes, “Change the Object Itself: Mythology Today,” in *Image—Music—Text*, trans. Stephen Heath (Glasgow: Fontana/Collins, 1977), 169.
2. Roland Barthes, “Rhetoric of the Image,” in *Image—Music—Text*, trans. Stephen Heath (Glasgow: Fontana/Collins, 1977), 44.

3. For statements on Barthes's 'realism,' see Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (London: Flamingo/Fontana, 1984), 88; and Barthes, "Rhetoric of the Image," 45.
4. See Marc Angenot, "Structuralism as Syncretism: Institutional Distortions of Saussure," in *The Structural Allegory: Reconstructive Encounters with the New French Thought*, ed. John Fekete (Minneapolis: University of Minnesota Press, 1984), 161.
5. Roland Barthes, "The Photographic Message," in *Image—Music—Text*, trans. Stephen Heath (Glasgow: Fontana/Collins, 1977), 16; Barthes, "Change the Object Itself," 166; and Barthes, "Photographic Message," 15.
6. Compare with Omar Calabrese, "Photography: History," in *Encyclopedic Dictionary of Semiotics*, ed. Thomas A. Sebeok (Berlin: Mouton de Gruyter, 1986); and Georges Mounin, "Photography: Theory," in *Encyclopedic Dictionary of Semiotics*, ed. Thomas A. Sebeok (Berlin: Mouton de Gruyter, 1986).
7. Roland Barthes, *Mythologies*, trans. Annette Lavers (St. Albans: Paladin, 1973), 9; Barthes, "Change the Object Itself," 167; and Barthes, *Camera Lucida*, 8, 10.
8. Barthes, *Camera Lucida*, 9.
9. See, for example, Barthes, "Photographic Message," "Rhetoric of the Image," and *Camera Lucida*. For an autobiographical account of Barthes's flirtations and adventures with semiology and its methodology see Roland Barthes, "Lecture in Inauguration of the Chair of Literary Semiology, Collège de France, January 7, 1977," trans. Richard Howard *October* 8 (1979): 10–15.
10. Compare Barthes, *Camera Lucida*, 88–89; Philippe Dubois, *L'acte photographique* (Paris: Fernand Nathan; Brussels: Editions Labor, 1983), 19–108; Christian Metz, "Photography and Fetish," *October* 34 (1985): 81–90; and Mounin, "Photography: Theory."
11. Herbert A. Simon, *The Sciences of the Artificial*, 2d ed. (Cambridge, Mass.: MIT Press, 1984), 7.
12. Barthes, *Mythologies*, 158.
13. Thomas M. Rice and Terrence W. Faulkner, "The Use of Photographic Space in the Development of the Disc Photographic System," *Journal of Applied Photographic Engineering* 9, no. 2 (1983): 52.
14. Terrence W. Faulkner and Thomas M. Rice, *A Description of Photographic Space*. (Rochester: Eastman Kodak Company, 1981), 1.
15. Rice and Faulkner, "Use of Photographic Space," 52.
16. Faulkner and Rice, *Description of Photographic Space*, 1.
17. Ibid.
18. Rice and Faulkner, "Use of Photographic Space," 53.
19. Faulkner and Rice, *Description of Photographic Space*, 2.

20. Ibid.
21. Ibid.
22. Ibid.
23. Ibid.
24. Ibid., 6.
25. Rice and Faulkner, "Use of Photographic Space," 52.
26. Ibid.
27. See Terrence W. Faulkner, "Human Factors in Disc Photography," in *Proceedings of the Third National Symposium on Human Factors and Industrial Design in Consumer Products* (Columbus, Oh.: IDSA/HFS, 1982).
28. Rice and Faulkner, "Use of Photographic Space," 52.
29. Roland Barthes, *Writing Degree Zero and Elements of Semiology*, trans. Annette Lavers and Colin Smith (Boston: Beacon Press, 1970), 96. For relevant semiotic definitions of "image" and "immanence" see Algirdas J. Greimas and Joseph Courtés, *Sémiotique: Dictionnaire raisonné de la théorie du langage* (Paris: Hachette, 1979), 181–82.
30. See Barthes, "Photographic Message," 16; and Mounin, "Photography: Theory," 721.
31. Philippe Dubois, *L'acte photographique*, 9, 94.
32. Rice and Faulkner, "Use of Photographic Space," 53.
33. Ibid.
34. Ibid.
35. Ibid.
36. Faulkner and Rice, *Description of Photographic Space*, 1.
37. Rice and Faulkner, "Use of Photographic Space," 54.
38. Faulkner and Rice, *Description of Photographic Space*, 6.
39. Rice and Faulkner, "Use of Photographic Space," 54.
40. Ibid.
41. Terrence W. Faulkner and Thomas M. Rice, "Human Factors, Photographic Space, and Disc Photography," in *Proceedings of the Human Factors Society, 26th Annual Meeting, Seattle, Washington* (Santa Monica, Cal.: Human Factors Society, 1982), 194.

42. Rice and Faulkner, "Use of Photographic Space," 56.
43. Simon, *Sciences of the Artificial*, xi.
44. See Barthes, "Chair of Literary Semiology," 10.
45. See Barthes, "Photographic Message," and "Rhetoric of the Image"; Dubois, *L'acte photographique*; René Lindekens, "Éléments pour une théorie générale des objets iconisés," *Semiotica* 4, no. 3 (1971): 197–214, and "Éléments pour une analyse du code de l'image photographique," in *Recherches sur les systèmes signifiants*, ed. J. Rey-Debove (The Hague: Mouton, 1973), 505–34; Mounin, "Photography: Theory"; and Angenot, "Structuralism as Syncretism," 161.
46. Mounin, "Photography: Theory," 721.
47. Barthes, *Camera Lucida*, 88.
48. Barthes, *Camera Lucida*, 8; Mounin, "Photography: Theory," 722.
49. Barthes, "Photographic Message," 20; and Juri M. Lotman, "The Sign Mechanism of Culture," trans. Ann Shukman, *Semiotica* 12, no. 4 (1974): 302.
50. Dubois, *L'acte photographique*; and Metz, "Photography and Fetish."
51. See Barthes, "Chair of Literary Semiology," 10.
52. See, Dubois, *L'acte photographique*; 20–21; and Jean-Marie Floch, *Sémiotique poétique et discours mythique en photographie : Analyse d'un 'nu' d'Edouard Boubat*. (Working Papers No 95, Series F) (Urbino: Centro Internazionale di Semiotica e di Linguistica, Università di Urbino, 1980), 3.
53. Floch, *Analyse d'un 'nu' d'Edouard Boubat*, 3–4.
54. Dubois, *L'acte photographique*; Floch, *Analyse d'un 'nu' d'Edouard Boubat*; Mounin, "Photography: Theory"; Barthes, *Camera Lucida*.
55. Barthes, "Change the Object Itself," 166.
56. Simon, *Sciences of the Artificial*, xi, 8.
57. *Ibid.*, 8, 9.
58. *Ibid.*, 131, 132.
59. *Ibid.*, 12, 13.
60. Rice and Faulkner, "Use of Photographic Space," 54, 55–56.
61. Simon, *Sciences of the Artificial*, 151.
62. Howard H. Pattee, "Postscript: Unsolved Problems and Potential Applications of Hierarchy Theory," in *Hierarchy Theory: The Challenge of Complex Systems*, ed. Howard H. Pattee (New York:

- George Braziller, 1973), 132; Simon, *Sciences of the Artificial*, 210; and Rice and Faulkner, "Use of Photographic Space," 57, 56.
63. Herbert A. Simon, "The Organization of Complex Systems," in *Hierarchy Theory: The Challenge of Complex Systems*, ed. Howard H. Pattee (New York: George Braziller, 1973), 5.
64. Faulkner and Rice, *Description of Photographic Space*, 2.
65. See Simon, *Sciences of the Artificial*, 200–209, for a discussion of the evolution of complex systems.
66. Faulkner and Rice, *Description of Photographic Space*, 1.
67. Rice and Faulkner, "Use of Photographic Space," 57.
68. See Simon, *Sciences of the Artificial*, 17: "Artificiality connotes perceptual similarity but essential difference, resemblance from without rather than within... we may say that the artificial object imitates the real by turning the same face to the outer system, by adapting, relative to the same goals, to comparable ranges of external tasks. Imitation is possible because distinct physical systems can be organized to exhibit nearly identical behaviour."
69. Rice and Faulkner, "Use of Photographic Space," 54.
70. Simon, *Sciences of the Artificial*, 222, 223.
71. *Ibid.*, 131–32.
72. Mounin, "Photography: Theory," 721.
73. See Barthes, *Camera Lucida*, 10; and Dubois, *L'acte photographique*.
74. Barthes, "Change the Object Itself," 166, 167.
75. Barthes, *Camera Lucida*, 10.
76. *Ibid.*

#### 4.1 FROM THE PHOTOGRAPH TO POSTPHOTOGRAPHIC PRACTICE: TOWARD A POSTOPTICAL ECOLOGY OF THE EYE

1. The concept of *subject* denotes that which is or has been *conventionally* photographed and which has or will produce an image on a photosensitive emulsion. It is therefore the object of photographic activity. Although 'subject' and 'image' are interchangeable terms at the level of the photograph, the term 'subject/image' is used because of its dual emphasis on the taking and making aspects of photographic production: the *choice* of a subject is symbolized by the frame of a viewfinder (*a taking process*) and defined by the *significant difference* produced by its inscription on a photosensitive support (*a making process*). On the role of the light-presence/darkness-absence binary classification system in photography, see chapter 2.2 and chapter 2.1.

2. See chapter 2.3; Gregory Bateson, “The Science of Mind and Order,” in *Steps to an Ecology of Mind* (New York: Ballantine Books, 1972), xxiii–xxv; and Leo Strauss, “On the Interpretation of Genesis,” *L’Homme* 21, no. 1 (1981): 5–20. The relevant portion of the Judaeo-Christian origin myth is presented in the first ten verses of Genesis (King James Version):
  1. In the beginning God created the heaven and the earth.
  2. And the earth was without form, and void; and darkness was upon the face of the deep. And the spirit of God moved upon the face of the waters.
  3. And God said, Let there be light: and there was light.
  4. And God saw the light, that it was good: and God divided the light from the darkness.
  5. And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day.
  6. And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters.
  7. And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: and it was so.
  8. And God called the firmament Heaven. And the evening and the morning were the second day.
  9. And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear: and it was so.
  10. And God called the dry land Earth; and the gathering together of the waters called he Seas: and God saw that it was good.
3. Some of the general cultural connections between the biological eye, photographic camera and a ritual of photography are outlined in chapter 2.3 (p. 159–162).
4. See Linda R. Waugh, “Marked and Unmarked: A Choice between Unequals in Semiotic Structure,” *Semiotica* 38, no. 3/4 (1982): 303. On the importance of light for biological life and the relation of vision to photobiology, see George Wald, “Life and Light,” in *Lasers and Light: Readings from Scientific American*, ed. Arthur L. Schawlow (San Francisco: W. H. Freeman, 1969), 101–13.
5. Joseph Nicéphore Niépce quoted in Louis Jacques Mandé Daguerre, *An Historical and Descriptive Account of the Various Processes of the Daguerreotype and the Diorama*, by Daguerre, facsimile of McLean and Giroux editions (1839), introd. by Beaumont Newhall (New York: Winter House, 1971), McLean ed. 41. See also the following comments from the first general treatise on photography, Robert Hunt’s *A Popular Treatise on the Art of Photography, Including Daguerreotype, and all the New Methods of Producing Pictures by the Chemical Agency of Light* (Glasgow: Richard Griffin, 1841), facsimile ed., introd. and notes James Yingpeh Tong, (Athens: Ohio University Press, 1973), iii: “The announcement of the discovery of a process by which light—the most subtle of the elements, the mysterious agent of vision—was made to pencil, on solid tablets, the objects it illuminated, and permanently fix the fleeting shadow, possessed, at the same time, so much of the marvellous and beautiful, as to excite more than common wonder.” Today, light is still considered the ‘agent’ of a photographic vision. See for example, *The Manual of Photography*,



- Ralph E. Jacobson, Sidney F. Ray, G. G. Attridge and N. R. Axford, 7th rev. ed. (London: Focal Press, 1978), 13, 20: "PHOTOGRAPHY, as far as the photographer is concerned, starts with light."
6. In Elizabeth Eastlake's terms, photographic *facts* are "neither the province of art nor of description"—both representational mediums embodying an overtly temporal *process of inscription*. Lady Elizabeth Eastlake, "Photography," *Quarterly Review* 101 (April 1857), reprinted in Beaumont Newhall, ed., *Photography: Essays and Images* (New York: Museum of Modern Art, 1980), 94.
  7. On the linear nature of historical knowledge, see Claude Lévi-Strauss, *The Savage Mind* (London: Weidenfeld and Nicolson, 1972), 258.
  8. Elizabeth Eastlake, "Photography," in *Photography: Essays and Images*, ed. Beaumont Newhall (New York: Museum of Modern Art, 1980), 93.
  9. Friedrich Nietzsche, *Twilight of the Idols and The Anti-Christ*, trans. and commentary R. J. Hollingdale (Harmondsworth: Penguin Books, 1968), 38; see also App. C, 190–91.
  10. See the following chapters from Bateson's, *Steps to an Ecology of Mind*: "Form, Substance, and Difference," 448–66; "Pathologies of Epistemology," 478–87; and "The Roots of Ecological Crisis," 488–93.
  11. *Ibid.*, 493.
  12. *Ibid.*, 465. See also, 454, 458–60 for a discussion of this topic.
  13. Friedrich Nietzsche, *The Use and Abuse of History*, trans. Adrian Collins, with an Introduction by Julius Kraft, 2nd rev. ed. (Indianapolis: Bobbs-Merrill, 1957), 6.
  14. *Ibid.*, 8.
  15. *Ibid.*, 9–11, 69. The "super-historical" is a second trans-historical consciousness that functions inversely from the 'unhistorical' because it operates from within the confines of the 'historical' to negate the differences on which the great narrative of history is forged. The 'super-historical' is the condition of all art and religion, a condition that refuses to acknowledge the transience of the present. Instead, it seeks the eternal and continuing through which a historical consciousness cannot exist because it is the product of change and evolution, or in Nietzsche's words, "the process of becoming."
  16. *Ibid.*, 3.

#### 5.1 MIMESIS AND THE DEATH OF DIFFERENCE IN THE GRAPHIC ARTS

1. Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1984), 194.
2. In the original version of this chapter I wanted to consider a very particular form of drawing—drawing without the aid of perspective machines or optical drawing instruments such as *camera obscuras* and

- camera lucidas*. However, the approach also applies to drawings produced with these and similar instruments, and in very interesting ways. For histories of the latter two instruments see John H. Hammond, *The Camera Obscura: A Chronicle* (Bristol: Adam Hilger, 1981) and John H. Hammond and Jill Austin, *The Camera Lucida in Art and Science* (Bristol: Adam Hilger, 1987).
3. de Certeau, *Practice of Everyday Life*, 72.
  4. Roland Barthes, "The Grain of the Voice," in *The Responsibility of Forms: Critical Essays on Music, Art, and Representation*, trans. Richard Howard (New York: Hill & Wang, 1985), 270.
  5. For an early canonical statement on the power of photography to democratize the production of images see William Henry Fox Talbot, "Brief Historical Sketch of the Invention of the Art," in *The Pencil of Nature*, facsimile of original 1844 edition (New York: Da Capo Press, 1969). For an equally canonical statement in connection with the invention of one-step or Polaroid photography see Edwin H. Land, "One-Step Photography," *Photographic Journal* 90, no. 7 (1950): 7. On the industrialization of photography see Reese V. Jenkins, *Images and Enterprise: Technology and the American Photographic Industry, 1839–1925* (Baltimore: Johns Hopkins University Press, 1975).
  6. Walter Benjamin, *Illuminations*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken Books, 1969), 219. For a contemporary statement to this effect, see Edwin H. Land, "One-Step Photography," *Photographic Journal* 90, no. 7 (1950): 7.
  7. Land, "One-Step Photography," 7.
  8. The origins of the word "photography" are discussed in H. J. P. Arnold, *William Henry Fox Talbot: Pioneer of Photography and Man of Science* (London: Hutchinson Benham, 1977), 117.
  9. Talbot, *Pencil of Nature*, Plate xi.
  10. Talbot, *Pencil of Nature*, Plate xxiii.
  11. Marshall McLuhan, *Understanding Media: The Extensions of Man*, 2d ed. (New York: A Mentor Book, 1964), 24, 32.
  12. The standard statement on the technological transformation of the human body can be found in Donna Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," *Socialist Review* 80 (1985): 65–107. For a different approach see my "The Technophilic Body: On Technicity in William Gibson's Cyborg Culture," *New Formations* 8 (1989): 113–29.
  13. On hybridity, interdisciplinarity, and cultural generativity see James Clifford, *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art* (Cambridge, Mass.: Harvard University Press, 1988) and "Introduction: Partial Truths," in *Writing Culture: The Poetics and Politics of Ethnography*, ed. James Clifford and George E. Marcus (Berkeley: University of California Press, 1986), 1–26. For a critique of Clifford's use of the terms hybridity and interdisciplinarity see chapter 1.2 (pp. 54–64).

- A more sophisticated discussion of hybridity, third space, and cultural generativity is presented in Homi K. Bhabha “The Commitment to Theory,” in *Questions of Third Cinema*, ed. Jim Pines and Paul Willemen (London: BFI Publishing, 1989), 111–32 (originally published in *New Formations* 5, 1988) and the interview with Bhabha entitled “The Third Space,” in *Identity: Community, Culture, Difference*, ed. Jonathan Rutherford (London: Lawrence & Wishart, 1990), 207–21. However, Bhabha’s notion of third space is of little use in dealing with intermedia-generated spaces, since it does not acknowledge the possibility of a practice that cannot be “tamed and symbolized in language” (de Certeau, *Practice of Everyday Life*, 61).
14. For a recent discussion of ‘tactile vision’ see Michael Taussig, “Physiognomic Aspects of Visual Worlds,” *Visual Anthropology Review* 8, no. 1 (1992): 15–28.
  15. Marshall McLuhan, *Understanding Media*, 33.
  16. See Claude Lévi-Strauss, *Introduction to the Work of Marcel Mauss*, trans. Felicity Baker (London: Routledge & Kegan Paul, 1987), 63.
  17. Brian O’Doherty, “The Eye and the Spectator,” in *Inside the White Cube: The Ideology of the Gallery Space*, (Santa Monica: The Lapis Press, 1986), 38.
  18. Roger Caillois, “Mimicry and Legendary Psychasthenia,” trans. John Shepley, *October* 31 (1984): 25.
  19. In later years, Caillois rejected his study as “fantastic,” and returned to a more conventional interpretation of insect mimicry: “the insect equivalent of human games of simulation” (quoted in Taussig, “Visual Worlds,” 28, n. 39). Of course, the scientific veracity of Caillois’s theory of mimicry has no bearing on its truth-value in the present case, since I am not dealing with mimicry in the insect world but with questions of media interpenetration and hybridity in connection with a specific art practice. On the other hand, I resist equating mimicry with simulation, especially in terms of its current formulation as a kind of hermetically sealed second-order representational system predicated on a play of copies, since mimicry posits, as its pre-existing condition, a direct perceptual relationship between an original and its copy—a relationship which is, moreover, based on a clear direction of acculturation. The consequences of this relationship and, in particular, the direction of its acculturation (notwithstanding mimicry’s obvious function of confusion *vis-à-vis* an original) are what interest me in the case of photographically acculturated drawings.
  20. *Ibid.*, 25, 27, 28, 27.
  21. *Ibid.*, 28, 32, 30, 31, 28.
  22. *Ibid.*, 32.
  23. Lévi-Strauss, *Marcel Mauss*, 64.
  24. Caillois, “Mimicry,” 30.

25. Ibid.
26. See Clifford, "Partial Truths," 26; and Bhabha, "Third Space," 211. Discussions of hybridity, 'in-between-ness,' third spaces, and cultural generativity do not attempt to specify the mechanisms that operate in these situations as if the use of such words automatically guaranteed the appearance of a new space, culture or identity. As we can see from this case, these words refer to complex processes which more often than not lie beyond their powers of representation.
27. Caillois, "Mimicry," 32.
28. Ibid., 27.
29. de Certeau, *Practice of Everyday Life*, 193–94.

#### 6.1 THE ENCODED EYE, THE ARCHIVE, AND ITS ENGINE HOUSE: FROM A RELATIONAL HISTORY OF TECHNOLOGY TO THE DESIGN OF A THREE-DIMENSIONAL ELECTRONIC BOOK

1. For previous discussions of this approach see chapter 4.1 (pp. 247–249), and David Tomas, *Beyond the Image Machine: A History of Visual Technologies* (London: Continuum, 2004), in particular chapter 7, "Unorthodox Time Machines: Images and Instruments across Space, Time and History."
2. Henry Adams, "A Law of Acceleration," in *The Education of Henry Adams: An Autobiography* (Boston: Houghton Mifflin, 1927), 494.
3. For a discussion of the social and political background to Vertov's work and its relationship to post-revolutionary Russian culture see Annette Michelson, *Kino-Eye: The Writings of Dziga Vertov*, trans. Kevin O'Brien (London: Pluto Press, 1984), xv–lxi; and Stephen Crofts and Olivia Rose, "An Essay Towards Man with a Movie Camera," *Screen* 18, no. 1 (1977): 9–58. For various discussions of the revolutionary nature of this film see: Vlada Petrić, *Constructivism in Film: The Man with the Movie Camera*, (Cambridge: Cambridge University Press, 1987); Annette Michelson "The Man with the Movie Camera: From Magician to Epistemologist," *Artforum* 10, no. 7 (1972): 60–72; and David Tomas, "Manufacturing Vision: Kino-Eye, 'The Man with a Movie Camera,' and the Perceptual Reconstruction of Social Identity," in *Visualizing Theory: Selected Essays from V.A.R. 1990–1994*, edited by Lucien Taylor (New York: Routledge, 1994) 271–86.
4. It is worth noting the similarities between the Circular Engine House, the Circular Reading Room, and Jeremy Bentham's late eighteenth century proposal for a prison to 'store' deviant human beings. For a discussion of the significance of Bentham's Panopticon design see Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage Books, 1979), 200–10.
5. Uchronia is word that identifies works that deal with eccentric or virtual histories and the possibilities they embody. It is based on the nineteenth century French word *uchronie*: a philosophical term that refers to the historical reconstruction of fictive events on the basis of given historical referents.

6. For a general discussion of heterotopias see Michel Foucault, "Of Other Spaces," trans. Jay Miskowicz, *Diacritics* 16, no. 1 (1986): 22–27. Foucault discusses the library and the museum on p. 26.
7. *The Encoded Eye* contains a small archive of installations and performed installations that can be accessed through the link "work" in the chapter entitled "Thresholds of Identity."



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## LES ÉTUDES

The mesmerizing power that the photograph has exercised over our collective imagination has created a situation in which it is hard to imagine other forms for images and image-making activities that might emerge through a reassessment of photography's position in the world of picture-making technologies. Not limited to photography's historical or contemporary rehabilitation, this reconsideration can also change the way that we conceive, construct, use or adapt new technologies, inasmuch as they are structured in a similar way (optical imaging and recording technology) or are conceived and operate within a photographic paradigm of realism (naturalistic and lifelike simulations in the case of digital pictures).

This book presents an unusual model of photography, and traces its elaboration and transformation over a twenty-five year period. In doing so, it also raises questions about the nature and forms of knowledge that might exist between disciplines. For the model of photography proposed is informed by a number of distinct disciplines such as anthropology, art, and the history and sociology of science.

*David Tomas is an artist and writer. He has exhibited internationally and has held visiting research and teaching fellowships at CalArts, Goldsmiths College, London, and the National Gallery of Canada. Tomas is the author of four books: Transcultural Space and Transcultural Beings, an Internet book entitled The Encoded Eye, the Archive, and its Engine House, DUCTION (co-authored with Michèle Thériault), and Beyond the Image Machine: A History of Visual Technologies.*



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