GUEST EDITOR *Sharon Helmer Poggenpohl*

WORDS IN SPACE

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VISIBLE LANGUAGE 34.1

Special Project of Visible Language in Two Issues

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Poggenpohl

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Jem Cohen's LOST BOOK FOUND

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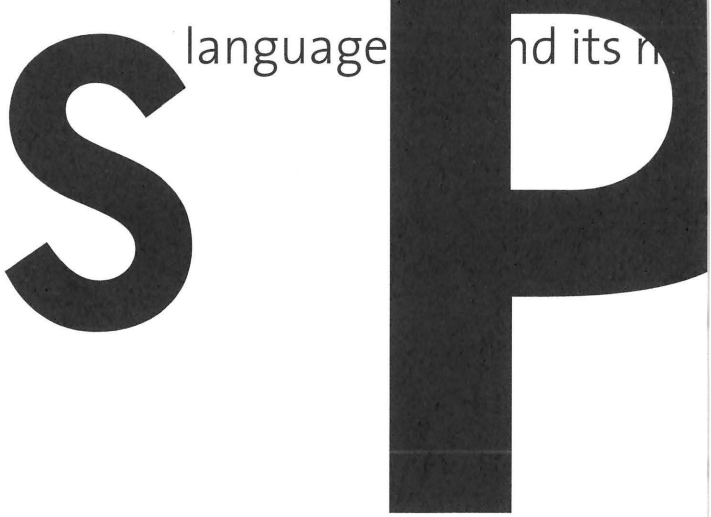

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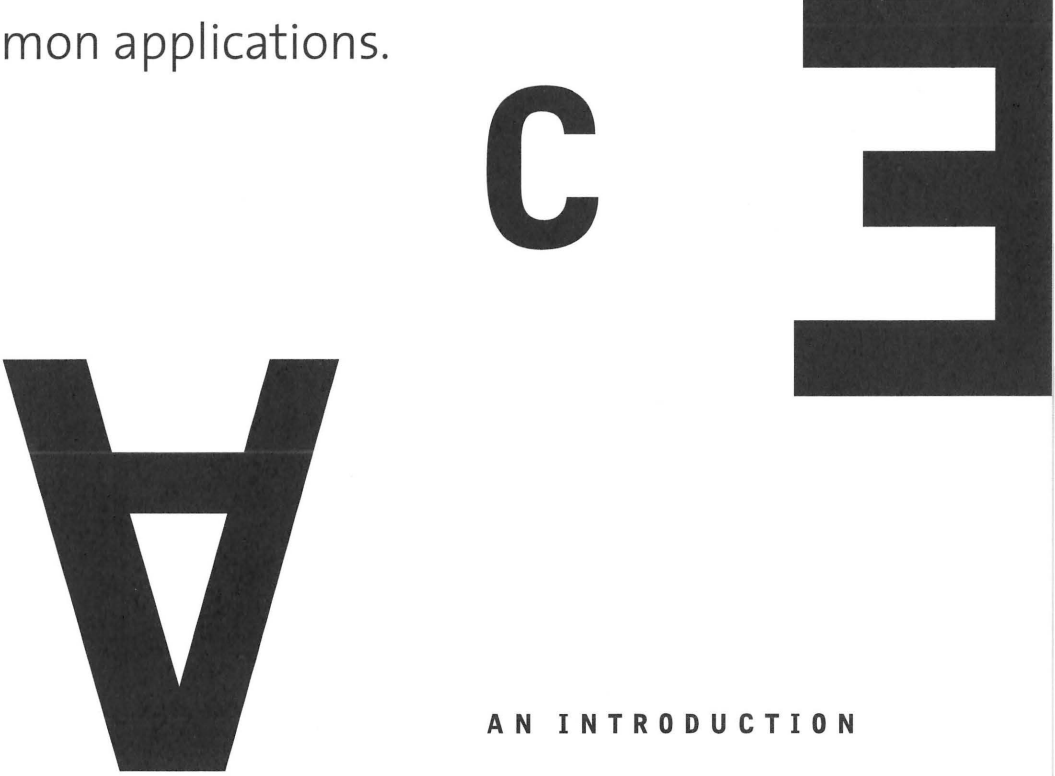

AN INTRODUCTION

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Visible language is ubiquitous, taken for granted; it is often
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PRESERVATION may seem an odd point of departure for this series of essays, but traversing a distant space – memorializing and stabilizing the written word is a primary benefit of visible language. Elizabeth Eisenstein in her classic book *The Printing Revolution in Early Modern Europe* states: "Of all the new features introduced by the duplicative powers of print, preservation is possibly the most important."[1] The first essay, a collaboration between Sang-Soo Ahn and Sharon Poggenpohl, "Preserving Words: The Korean Tripitaka," is an homage to the wisdom transferred through written language and generations of human care. It is the woodblocks themselves, dating from 1251, from which countless impressions can be made that the authors celebrate here. This durable artifact and its printed product is now joining the digital age. Will digital preservation, an invisible language, outlast the physical wooden record's nearly seven-and-a-half centuries?

The reader is invited to re

PART ONE SHARON HELMER POGGENPOHL

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REMEDIATION,[2] the transference of the character or structure of one medium into another, particularly that of an old medium into a new, anchors the second essay, "Bookcover as Intertitle in the Cinema of Jean-Luc Godard." In Kevin Hayes essay, textual reference also plays its part as a book, presented visually – its cover or spine revealing a title – it deepens meaning and signals structural shifts within a cinematic presentation. It reminds us of the importance of narrative in books, in movies, in life itself. Here a movie quotes not a passage but an entire book, which in turn is quoted in this article as a film clip. Remediation continues – it supports reference and memory.

INTERPRETATION, whether cursory or hermeneutic, colors the everyday experience of making sense of the city. Mark Owens' essay, "Reading the City: Writing and the Construction of Urban Space in Jem Cohen's LOST BOOK FOUND explores the materiality of writing within New York City in the technically modest but lyrical Cohen film. Ephemeral writing, its decay and fragmentation and the subsequent rewriting of the urban substrate stand in contrast to preservation. The "lost book" with its strange categories is at the core of a series of nested events that include the city and its instantiation of the categories as well as the essay itself as it encapsulates both "lost book," film and city. Sorting and organizing ideas and experience into categories or lists is, according to Jack Goody, a significant attribute of the literate mind.[3] Here the literate mind reads, meditates and transfers categories beyond the page.

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age through these essays.

NAVIGATION, using the Global Positioning System, renders a visible record of movement or position in time. "Visualizing Place," Andrea Wollensak's essay, explores the possibilities for expression using triangulations from satellites to record traces of memory and movement. Diagramming position, experiencing space technologically in response to human action and visceral experience, whether reflecting an old culture or new, whether stable or moving, opens a performative space that is both human and precise.

ENDNOTES

1 Eisenstein, Elizabeth. 1983. *The Printing Revolution in Early Modern Europe.* London: Cambridge University Press, 78.

2 Bolter, Jay David and Richard Grusin. 1999. *Remediation, Understanding New Media.* Cambridge: MIT Press.

3 Goody, Jack. 1977. *The Domestication of the Savage Mind.* London: Cambridge University Press, 17.

A view between the open open slats showing the Tripitaka in storage.

Preserving Words

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Visible Language, 34.1
Ahn and Poggenpohl, 8-13

SANG-SOO AHN
AND SHARON POGGENPOHL

The Korean Tripitaka

THE KOREAN TRIPITAKA, created between 1236 and 1251, becomes the object of a brief meditation on the "lastingness" of the visual record in analog or digital form as expressed through natural or technical materials.

Words as spoken are fleeting, difficult to re-embody from faulty memory, subject to approximation and re-interpretation. Words as written, take on a stable embodiment, become authentic, reliable and lasting. Even better, words as printed, amplify the written word through authentic distribution that eliminates re-writing, while it provides a widespread foundation for discourse. Now the era of digital storage and access on the web provide nearly unlimited distribution and the ability to search indepth – to search not only *for* a document, but *through* its inner workings as well.

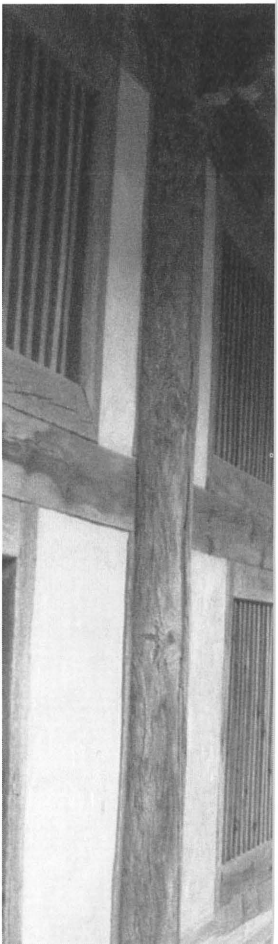
THE KOREAN TRIPITAKA

In the mountains of central South Korea, near Taegu, at Haein-sa (Reflection on a Calm Sea Temple), a Korean national treasure resides, the Korean Tripitaka.[1] Carved by Buddhist monks between 1236 and 1251, the Buddhist canon was expressed on 81,340 woodblocks, carved on both sides. There are 322 characters on each side or a total of 52,382,960. A bow before carving each character was customary – the result is a perfect record, reported to have no typographical errors. The uniform calligraphic style appears to be the work of one hand. The Tripitaka consists of 6,791 volumes. If a reader read one volume a day, it would take eighteen years to complete the reading.

A MATERIALITY IN CONTROL

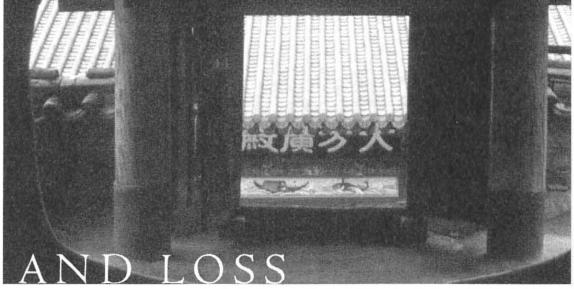
The material for the woodblocks is a variety of tall trees, including silver magnolia, white birch and cherry. The wood was carefully prepared by being submerged in seawater for three years before it was sawn into planks, which were then boiled in seawater and allowed to slowly dry in the shade before carving. The woodblocks have been carefully stored for centuries.

Behind the main temple at Haein-sa is a rectangular compound consisting of two long buildings, constructed in 1488, which house the Tripitaka, separated by two small buildings used for printing the woodblocks. The ground on which the buildings stand was prepared with charcoal, powdered lime and clay to control humidity. The building itself is open to the elements through a system of alternating vertical, wooden slats and open spaces that allows temperature and humidity change to act slowly and evenly on the organic blocks; they expand and contract with the weather. Over the centuries the woodblocks have been mold-free, until they were moved into a modern, climate controlled building which was designed and built expressly for their storage. When mold was noticed on the woodblocks, they were removed to their original, ancient storage buildings.



A view along the side of one of the storage buildings.

Entrance to the library where the Tripitaka is stored.



A HISTORY OF INVASION AND LOSS

The Korean Tripitaka, also called the Second Koryo Edition was based on the careful work of a monk named Sugi, who was charged to recreate the canon after the Mongols in a 1232 invasion burned the monastery where the first Koryo Edition was kept. Cultural domination has often been expressed through the destruction of valued text. Ironically, Koreans believed that the Tripitaka was a talisman against invasion. Sugi, in classic editorial fashion, recreated the canon through the examination of comparative texts and through consultation with experts. He left an account of the procedure he used for editing the canon, preserved as a woodblock.[2]

A DIGITAL FUTURE

Over the past years, in response to digital technology and its ability to make the Tripitaka widely accessible, its printed form has been digitized and made available through a searchable database. Begun by the University of California at Berkeley, an input site was set up in Shanghai, where the first two million characters were entered. The monks at Haein-sa led by Chongnim Snim took over the project with the support of the Samsung Foundation. The scale of this undertaking is impressive.

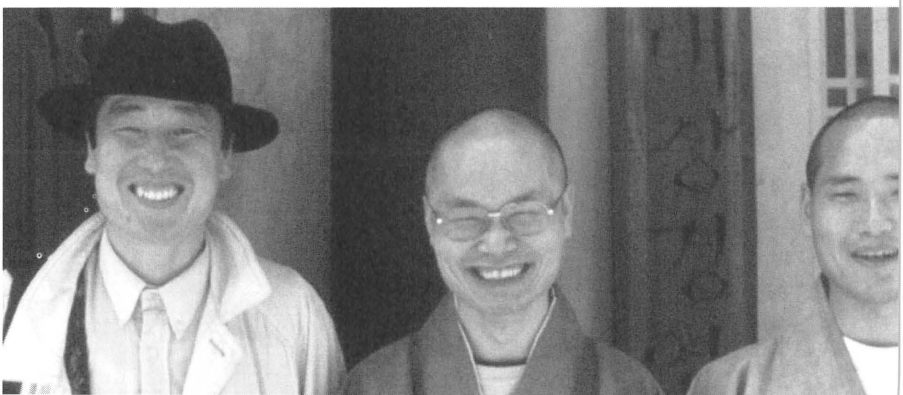
Now, the monks at Haein-sa are planning to digitally photograph the woodblocks themselves as high resolution images. An equally daunting task to the previous one, the authors estimate that it would take a monk eight years of diligent work to record the woodblock images. What is even more overwhelming is the digital storage necessary to contain the high resolution records. While visiting Haein-sa, the authors discussed the digital challenge with the monk in charge of this project, who is also a computer scientist.

What is at issue is the lastingness of the digital record. When compared to the more than seven centuries of woodblock endurance and use, a look back over even seven years yields many digital files that are unreadable due to the volatility of both hardware and software. The preservation community must look twice at such a record. Like the contemporary storage building that failed in its task, digital storage can itself become an invisible language record as compared to the physical, wooden, low-tech, "words in space" record that has travelled so well through time and space.

Six experts assembled by the *New York Times* to discuss millennial strategy with regard to the creation of a time capsule for the year 3000, roundly and unanimously counted out digital storage as a viable strategy. One expert observed that digital storage was an all-or-nothing proposition, as once the ones and zeroes of that record begin to break down, the entire record is unreadable. This is in contrast to analog records whose broken surfaces and missing elements still yield enough information to allow for reconstruction. Yet another expert wanted to be certain that paper itself was given its due importance as paper can last a thousand years under the right conditions.[3]

Understanding of the physical world – wood, climate, safekeeping – still exceeds our technological sophistication. Yet the benefits conferred by the technological and the digital in particular remain significant, in particular the ability to search and to find. Analog and digital records will coexist, achieving different benefits in use resulting from their differences in character. The stability of the analog as the model or archetype is complemented by the dynamic, maleable nature of the digital.

Professor Sang-Soo Ahn with the digital monk (center) and his associate.



Sang-Soo Ahn is a professor of design at Hong-Ik University in Seoul, South Korea. He is one of Korea's premier typographers and a practicing designer. Presently, he is a vice-president of the international organization ICOGRADA.

Sharon Helmer Poggenpohl edits and publishes this journal and teaches in the graduate design program at the Institute of Design, Illinois Institute of Technology in Chicago.

ENDNOTES

1 Additionally, UNESCO has given the Tripitaka Koreana woodblocks a World Cultural Heritage designation.

2 The Second Koryo Edition of Sugi is available to readers in a forty-eight volume set of facsimiles of the xylograph rubbings at Haein-sa. *Koryo taejanggyong*. 1976. Seoul: Tongguk University Press.

3 For an interesting discussion of preservation and its many volatile dimensions, including material, code, institutional caretaking, politics and more, see "Built to Last." *New York Times Magazine*, December 5, 1999, 86, 88, 92, 94.

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BOOKCOVER AS

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in the Cinema

Jean-Luc Godard used books in his early films as pa
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Godard began to display extreme close-ups of boo
part of the diegesis. He turned the cover titles in
film intertitles. His tentative use of these extradieg
LE FOU became much more thorough in DEUX
QUE JE SAIS D'ELLE. In this film, Godard used
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KEVIN J. HAYES

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DEUX OU TROIS CHOSES QUE JE SAIS D'ELLE (Two or Three Things I Know about Her, 1966) marks a significant advance in the complexity of Jean-Luc Godard's visual references to books. While he had incorporated numerous books in his earlier films, nearly all of them occur as part of his mise-en-scène and therefore belong to the diegesis of each film. In PIERROT LE FOU (1965), he had tentatively incorporated a few extreme close-ups from bookcovers that were not part of the diegesis, a technique DEUX OU TROIS CHOSES expands upon as it lifts the extradiegetic book to a new level of significance. Though the film contains many books as part of its mise-en-scène, it also displays extreme close-ups from several bookcovers, and their words serve to gloss the images that precede and follow them. In a way, the title words from these bookcovers function similarly to the intertitles of silent films – with one crucial difference. Whereas silent film intertitles were created specifically for their films, Godard's bookcover intertitles take words that have already entered the culture and make them suit the situation as best they can. His use of the extradiegetic book would become increasingly sophisticated in subsequent films over the next few years: MADE IN U.S.A. (1966), the CINÉTRACTS (1968), and LE GAI SAVOIR (The Joy of Knowledge, 1968).

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Visible Language, 34.1
Hayes, 14-33

Deux ou Tro
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Partway through DEUX OU TROIS CHOSES QUE JE SAIS D'ELLE Juliette Janson (Marina Vlady) and her friend Marianne (Anny Duperey), both of whom belong to the world of high-rise housing complexes outside Paris and work as prostitutes to support their suburban lifestyle, visit a frequent client of Marianne's, an American newspaper reporter played by Raoul Lévy, one of the film's producers. As they enter his hotel room, Marianne carries a book with her. After undressing and seating herself on the bed to await him, she opens the book and reads silently. Marianne's act of reading emphasizes her nonchalant attitude toward being a prostitute. Waiting for her client, she reads as others might read while waiting for a bus or a train, as Bruno Forestier reads his copy of Maurice Limat's *J'Ecoute l'Univers* IN LE PETIT SOLDAT (1960) to kill time during a railway journey. Like Bruno's, Marianne's book is the work of a prolific science fiction writer, for she reads *Un Remede á la Melanc* a translation of Ray Bradbury's collection of short stories, *A Medicine for Melancholy*. The book's title conveys the general idea that Marianne, Juliette and others like them who are caught within modern consumer culture desperately need a cure for their malaise. In addition, the presence of the book emphasizes the gap between the imaginative world Bradbury represents and the quotidian world of suburban Paris in the mid 1960s.

With the Bradbury volume, Godard also continues to use books as references to contemporary filmmakers, for the book obliquely alludes to François Truffaut. Earlier that same year Truffaut had released his Bradbury adaptation, FAHRENHEIT 451. Godard

CHOSES
Sais d'Elle

had visited Truffaut at Pinewood Studios shortly before shooting began,[1] and Truffaut had paid tribute to Godard in the film with a reference to À BOUT DE SOUFFLE (Breathless, 1960). During the book-burning sequence at the house of the old woman who hoards books, Truffaut had included an issue of *Cahiers du Cinéma* displaying a picture of Jean Seberg as Patricia Franchini on its cover. With the Bradbury reference, Godard returns the favor, though the implications of his Truffaut allusion may not be entirely flattering. Regardless of their artistic kinship, Godard was indebted to his friend in a more tangible way, for Truffaut, like Raoul Lévy, was one of the producers of DEUX OU TROIS CHOSES. Casting one producer as a prostitute's client and using her book to allude to another, Godard exposes her to both and therefore doubly reinforces an ongoing critique extending at least as far back as LE MÉPRIS (Contempt, 1963). Paralleling the prostitute's task with the film director's, Godard presents one of his "most deep-rooted theories":

"to live in Parisian society today, at whatever level or on whatever plane, one is forced to prostitute oneself."[2]

The particular edition of the Bradbury work Marianne reads belongs to the science fiction series, Presence du Futur. The series title reinforces a persistent theme in Godard's work, the interrelationship of past, present and future. It also echoes an idea Godard articulates in his whispered voiceover during the memorable coffee cup sequence in DEUX OU TROIS CHOSES as he explains how the "lightning advances of science give to future centuries a haunting presence" and anticipates a time "when the future is more present than the present, when distant galaxies are at my door."

Some may argue that expecting viewers to identify the series of a paperback book which appears on screen for only a few seconds may be demanding too much from them. The obvious response is: who ever said Godard was not demanding?

Actually, the series may have been more quickly recognizable to contemporary audiences than the individual book. Works published in the same series often share similar cover graphics. With its white cover splashed with orange, the series to which *Un Remede à la Melancolie* belonged would have been familiar to anyone who browsed the science fiction shelves of Paris bookshops during the mid 1960s.

The copy of Bradbury is one of many different printed objects appearing in DEUX OU TROIS CHOSES. While Marianne is busy with the American, Juliette gazes at photographs in an issue of *Life* magazine. Several interiors are decorated with airline travel posters which supply additional contrast. Those dwelling in suburban Paris live their lives against the backdrop of exotic locales. Instead of promising thrills and excitement, however, the posters serve as reminders of destinations the working class will never afford. Godard's use of travel posters recalls Julien Duvivier's LE BELLE EQUIPE (They Were Five, 1936), in which Jean, an out-of-work character played by Jean Gabin, stares longingly at a winter-vacation poster. The colorful postcards at Marianne's beauty shop, reminiscent of the postcards Françoise (Jacqueline Laurent) keeps tacked to her bedroom wall in Marcel Carné's LE JOUR SE LÈVE (Daybreak, 1939), reinforce the disparity between exotic destinations and the commonplace existence of the Parisian working class. Boxes of detergent and numerous other packaged products also form important motifs throughout the film. Even the airline flight-bags the American has Juliette and Marianne place over their faces belong to the print culture, for they are silk-screened with the corporate logos, TWA and Pan-Am. In his voiceover narration, Godard sardonically describes the burgeoning significance of words as part of the visual culture:

There is increasing interaction between images and language.

One might say that living in society today is almost like

Emphasizing the graphic elements from paperback bookcovers, Godard associates books with the numerous other manifestations of print in DEUX OU TROIS CHOSES and, in so doing, locates the intellectual world within the realm of the consumer.

By no means does Marianne's copy of Bradbury represent the only series of books Godard includes in DEUX OU TROIS CHOSES. Throughout the film, he makes significant use of another series of books, for he inserts several extreme close-ups from the covers of paperback books in the Idées series published by Gallimard. Each image is similar, for each book cover has a mottled blue background with title words in white or yellow. Using similar cover graphics, publishers enhance the continuity of a series and allow separate works to sell one another by visual association. Though primarily a marketing tool, bookcover graphics nevertheless imply a continuity of thought among the various works included within a single series.

The extreme close-ups of the bookcovers contribute to the film's continuity and link together the different ideas the title words express. Godard inserts the series title, Idées, multiple times, too. Its similar visual appearance to the individual book titles reinforces the associations among them.

The bookcovers from the Idées series in DEUX OU TROIS CHOSES are reminiscent of the bookcovers in UNE FEMME EST UNE FEMME (A Woman Is a Woman, 1961). In both films, selected title words from the front covers of paperback books are used to convey meaning. There is, however, one crucial difference between the way the bookcovers are presented in each film. In UNE FEMME EST UNE FEMME,

living in a vast comic strip."

Angéla and Emile use their hands to frame the title words they wish to display, yet none of the characters in DEUX OU TROIS CHOSES handle the books from the Idées series. In other words, the books in UNE FEMME EST UNE FEMME are part of the film's diegesis while the books from Gallimard's Idées series in DEUX OU TROIS CHOSES are extradiegetic. There are many other books that are part of the diegesis in DEUX OU TROIS CHOSES – Marianne's Bradbury, the stacks of books which Bouvard (Claude Miller) reads from and Pécuchet (Jean-Patrick Lebel) transcribes, the book that the prize-winning author Ivanov (Jean-Pierre Laverne) inscribes for a school-girl (Blandine Jeanson), and the copy of *A l'Assaut de la Pyramide Sociale*, a translation of Vance Packard's *The Pyramid Climbers*, Robert Janson (Roger Montsoret) reads in bed near the end of the film – but the books from the Idées series are not.

In DEUX OU TROIS CHOSES, Godard, as narrator and filmmaker, assumes the place of Angéla and Emile in UNE FEMME EST UNE FEMME. Like them, he carries on an argument using title words from book-covers. While theirs is a private lovers' quarrel, however, Godard's is a public forum between a filmmaker who has assumed the role of social commentator and the audience who watches, hears and reads the film. Where the two lovers use their hands to frame the title words for their silent argument, Godard uses the motion picture frame. These inserts have the quality of chapter titles in a book or, to make a comparison to another Godard film, they resemble the intertitles that separate the different tableaux in VIVRE SA VIE (My Life to Live, 1962). Julia Lesage has characterized the inserts as Brechtian footnotes,[3] yet the term intertitle suits them better,

for they function less as appended references and more as texts establishing ways of perceiving subsequent images.

The first insert from a book in the Idées series appears immediately prior to an early sequence depicting homelife with Robert and Juliette Janson:

DIX-HUIT LEÇONS SUR LA SOCIÉTÉ INDUSTRIELLE

Understood in relation to the sequence, this intertitle suggests that the promised lessons will come in the form of exempla depicting people living within the industrial society. The words are from the cover of Raymond Aron's economic analysis of modern society, *Dix-Huit Leçons sur la Société Industrielle*. Discussing DEUX OU TROIS CHOSES, Godard acknowledged his debt to Aron and asserted that the film "endeavors to present one or two lessons on industrial society."[4] Aron's work initiated debate about what constitutes industrial society and how best to regulate it. Comparing Western society with Soviet society, Aron found that neither capitalist nor Marxist approaches offered the ideal solution. Instead of taking sides and concluding that one better fostered economic growth than the other, Aron questioned the overall value of economic growth as a necessary goal. DEUX OU TROIS CHOSES, though sharing some of Aron's ideas, is more polemical than the book. While Godard refrains from offering an alternative, there is little question that the film indicts the burgeoning consumer culture. Godard does not necessarily side with Marxism here, but the ideas he conveys reveal his receptivity to the communist notions he would embrace during the next few years.

There were hundreds of books in Gallimard's Idées series, but unlike Bouvard and Pécuchet in the Elysée-Marbeuf café sequence, Godard does not choose his books at random. The sequel to *Dix-Huit Leçons* supplies Godard's next insert from the Idées series. Creating two consecutive intertitles from different books by the same author, Godard signifies his careful and deliberate choice of titles. The insert reads:

DE CLASSES
NOUVELLE LEÇONS
SUR LES SOCIÉTÉS
INDUSTRIELLES

The words come from the cover of *La Lutte de Classes: Nouvelles Leçons sur les Sociétés Industrielles*. Cutting off the first two words, Godard takes out the struggle (la lutte), suggesting that his is a story of classes without struggle. In so doing, Godard confirms ideas contained within Aron's book, which generally argues that the history of modern society is no longer one of class struggles but the story of a general escalation toward high mass consumption. Instead of struggling, Godard implies, people in modern society accept their station with lethargic indifference and succumb to a world controlled by material impulses. Cutting off "la lutte" would become unthinkable for Godard over the next few years during which he would embrace Maoism, a doctrine emphasizing the importance of understanding how the class struggle evidences itself in all aspects of human existence.[5] In terms of both title and intertitle, Godard would restore the struggle. The sequence involving a sportscar-farm tractor crash in WEEKEND, for example, contains the intertitle:

LA LUTTE DE CLASSES

And LOTTE IN ITALIA (Luttes en Italie, 1970), as the title indicates, explicitly addresses the class struggle.

A later insert in DEUX OU TROIS CHOSES presents the title of a work by another prominent economist, Jean Fourastie:

LE GRAND ESPOIR DU XXe SIÈCLE

The title occurs between two shots of construction sites and thus implies that industry and modernization are the great hope of the twentieth century. The intertitle, therefore, contributes irony to the sequence. While expressing a belief in progress many contemporaries held true, it simultaneously questions the validity of that belief. The irony of this intertitle nicely complements the ambiguity of the construction shots throughout DEUX OU TROIS CHOSES. These images question the value of so much new construction, yet Godard's display of the construction, in Eastman Color and Techniscope, makes them beautiful and therefore creates ambiguity.

During the rendezvous between Juliette and a tall, pimple-faced Metro worker, the following intertitle appears:

INTRODUCTION À L'ETHNOLOGIE

The words provide viewers with one way to perceive the film, that is, to regard it as an ethnological work. Alfred Guzzetti, recalling that Godard studied ethnology at the Sorbonne, has suggested that the words have a personal dimension and has argued that the young man in this scene is a stand-in for a young Godard and that the young man's tryst with the prostitute marks a step in his ethnological education.[6] The book Godard used as the basis for the intertitle, which Guzzetti does not identify, makes possible a somewhat different interpretation yet one retaining a personal dimension. The French title of the book, *Introduction à l' Ethnologie*, is really a misnomer, for the work is not an ethnological work per se. It originally appeared in English with the title, *They Studied Man*. Edited by Abram Kardiner and Edward Preble, *They Studied Man*

is an anthology of extracts from several major thinkers who pondered the human condition – Charles Darwin, Emile Durkheim, Sir James Frazer and Sigmund Freud, among others. Alluding to this compendium of thought, Godard linked his cinematic meditation on modern man with the ideas of great thinkers before him. Godard thus places himself and his own work within the Western intellectual tradition.

The intertitle:

PSYCHOLOGIE DE LA FORME

Godard borrowed from the French translation of Wolfgang Köhler's *Gestalt Psychology*. In a brief article in *L'Avant-Scène du Cinéma* the year after the film appeared, Godard contemplated DEUX OU TROIS CHOSES, and his remarks provide a good gloss for this reference to Köhler's work. Godard urged viewers to look beyond the specific objects and attitudes depicted in the film in order to discover "certain more general forms" and to discern "not a generalized overall truth, but a certain 'complex feeling.'"[7] Godard's reference to Gestalt psychology in the film functions as a plea for audiences to perceive DEUX OU TROIS CHOSES, not as a collection of shots, settings, motifs, images and sounds, but as a distinct whole.

Continuing to contemplate DEUX OU TROIS CHOSES after finishing the film, Godard wrote, "Actually, when I come to think about it, a film like this is a little as if I wanted to write a sociological essay in the form of a novel."[8] His words deliberately echo another intertitle from the film:

SOCIOLOGIE DU ROMAN

Godard took these words from the cover of Lucien Goldmann's *Pour une Sociologie du Roman*.[9] The reference to Goldmann's work brings together the economic ideas from earlier intertitles with the search for an overall pattern that the reference to Gestalt psychology had implied. Goldmann theorized that the essential structure of the modern novel parallels the economic structure of market society. Godard applies Goldmann's theory to convey the impossibility of telling a modern fictional story without also telling the truth about the social conditions that make the story imaginable.

Godard's use of title words from the works of others recalls Edgar Allan Poe's idea about the power of words: once articulated,

words survive indefinitely.

While Poe's "The Power of Words" specifically concerns the spoken word, Godard's use of bookcover graphics extends Poe's idea to the written word. Book titles in sidewalk bookstalls or on display shelves inside bookstores and department stores provide modern-day analogues for the idea. Poe has the spoken word float about in infinite space. In modern consumer culture, the written word becomes part of the environment, the visual landscape. Attractively printed on dust jackets of hardbound books or the covers of paperbacks, book titles enter the public vocabulary, fair verbal game for anyone to use as they will. For Godard, book titles are a recyclable commodity. His short film, LE GRAND ESCROC, borrows its title from Herman Melville's *Le Grand Escroc*, as *The Confidence-Man* was known after it was first translated into French in 1950. LE GAI SAVOIR, to cite another example, borrows its title from Friedrich Nietzsche's *The Gay Science*.

Made

In MADE IN U.S.A., a film Godard made the same year as DEUX OU TROIS CHOSES, he again used books from Gallimard's Idées series. The film tells a story about Paula Nelson, a private detective who investigates the mysterious disappearance of her friend Richard. As part of her investigation, Paula questions one Doctor Ludwig, the physician who certified Richard's death. As she questions the doctor, he consults a copy of Georg Groddeck's *Au Fond de l'Homme, Cela*. This psychoanalytic work originally appeared as *Das Buch vom Es* in 1923. Groddeck came up with the idea of "das Es" or "the It," a term borrowed from Nietzsche which Groddeck used to refer to an indivisible force determining a person's mental and physical health and well-being. More therapist than theorist, Groddeck ran a clinic at Baden-Baden where he attempted to cure physical ailments through psychoanalysis. The mid 1960s saw a revival of interest in Groddeck, whose therapeutic approach found many new readers among a generation amenable to such holistic ideas.

The reference to Groddeck in MADE IN U.S.A. functions similarly to the allusion to Gestalt psychology in DEUX OU TROIS CHOSES, for both convey the value of understanding the world holistically. Psychoanalyzing his patients, Groddeck attempted to discern more deep-seated causes of physical ailments. As Paula questions Doctor Ludwig, he avoids giving her a straight answer concerning the cause of Richard's death, yet he does let her know that Richard was lonely. Paula responds that loneliness could hardly be the cause of death whereupon the doctor expresses confusion: "I don't understand. You really think there might be a connection between loneliness and an organic illness?"

[N U.S.A.

His words clearly show that he has not learned anything from Groddeck whose fundamental theory is based precisely on the connection between mental and physical well being. Through the character of Doctor Ludwig, Godard implies that those in authority have no idea how to diagnose the problems facing them. Godard's use of Groddeck also functions at the macrocosmic level. Curing society's ills, he implies, means taking a holistic approach toward healing the body politic.

Later in MADE IN U.S.A., Godard displays the cover of another book from the Idées series, Marc Paillet's *Gauche, Année Zéro*. Paillet's work treats modern French politics, government and economic policy. In a contemporary comment, Godard specifically described how this particular title functions in the film. The last time the title appears, he explained that

"the beginning of a movement of Schumann's Fourth Symphony is heard. Unless you're blind and deaf, it's impossible not to see that this shot, this mixture of image and sound, represents a movement of hope. You can call it false, ridiculous, childish, provocative, but it is what it is, like a scientific object."[10]

Godard's comment reinforces the visual significance of Paillet's title and, in so doing, reinforces the care with which he chose the book titles that appear throughout his oeuvre.

Ciné

Godard's CINÉTRACTS, made in May 1968 to depict the revolutionary events unfolding then, also incorporate close-ups of multiple bookcovers, which are inscribed with handwritten messages. The inscriptions convey the idea that

print culture alone is insufficient for conveying thought.

Godard's growing skepticism toward print culture parallels his changing attitude toward cinema during the late 1960s. Book publishers, after all, performed an analogous role to film producers. In their essence, both represent the money that mediates between creative genius and the final product the public sees. During the turbulent days of May 1968, Godard, among other filmmakers, realized that the way to create moving images honestly reflecting the revolutionary events taking place was to create brief cinétracts so cheap that anyone with a camera could make them: no producer necessary. At the same time, many people expressed themselves – their ideas and their frustrations – through graffiti, a medium of expression Godard's CINÉTRACTS incorporated. The analogy is clear: graffiti is to the book what the cinétract is to commercially-produced feature film. Graffiti provides a succinct way for anyone with a spray-can or a stick of chalk to publish their written ideas, to publish them, that is, in the original sense of the word, to make them public:

no publisher necessary.

TRACTS

One CINÉTRACT makes use of Hachette's L'Univers des Connaissances, a series of books similar to Gallimard's Idées. One shot depicts the front covers of two books with the series title prominently displayed on the covers of both. The left side of the frame shows Hans Freudenthal's *Mathématiques et Réalités*. The right side of the frame contains Jürgen Kuczynski's *Les Origines de la Classe Ouvrière*. In his work, Freudenthal, an important mathematics educator, discusses wide-ranging practical and realistic applications for mathematics. Kuczynski's work, on the other hand, examines the history of the labor class. Depicting the two books within the same frame, Godard replicates their position in the Hachette series, for Kuczynski's work comes directly after Freudenthal's in the series. In his early short film, CHARLOTTE ET SON JULES (1958), Godard had expressed the idea that any utterance necessarily has a connection to the one preceding it. Though Freudenthal and Kuczynski worked in two completely different fields, their proximity in the Hachette series necessarily implies a connection between their distinctive works.

The cover inscriptions reinforce the connection between the two volumes, for a horizontal line with arrowheads at each end connects one cover to the next. More than a simple connector, the horizontal line resembles the x-axis of the Cartesian coordinates; a dark vertical line between the two books forms the y-axis. The word "cinéma" is inscribed above the horizontal line on the Freudenthal cover and below the horizontal line on the Kuczynski cover. Since Freudenthal's book conveys the value of the practical applications of mathematics, Godard's placement of it adjacent to Kuczynski's study of the labor class suggests social reform as one possible application for mathematics. Inscribing both covers with the word "cinéma," Godard implies that cinema is the cultural location where mathematics can be brought to bear on social causes.

The graffiti-like inscriptions Godard experimented with in the CINÉTRACTS he used more extensively in LE GAI SAVOIR, which also depicts several bookcovers. Though the bookcovers in LE GAI SAVOIR often appear close-up, many are tilted sideways.

The sideways bookcovers implicitly question the value of their titles and their texts for conveying truth. Many of the covers are inscribed with hand-written messages. While the printed titles appear sideways, the inscriptions appear upright. Godard's hierarchic juxtaposition of manuscript and print suggests that he was questioning the value of print for expressing truth.

Two of the sideways books in LE GAI SAVOIR deserve particular attention, for both concern how language creates meaning. One is *Le Langage*, the French translation of Edward Sapir's *Language, An Introduction to the Study of Speech*. First published in 1921, the work had remained in print, earned a reputation as a minor classic in the study of language, and been translated into multiple languages. The French translation had been reprinted the year before LE GAI SAVOIR appeared. Godard depicts the book tilted to the left with the word "savoir" inscribed on its cover so that the printed title and the inscription appear at right angles to one another. Savoir – knowledge – comes not from print culture but from manuscript culture, a form of writing unmediated by a publisher. The next bookcover depicted is Jacques Derrida's *De la Grammatologie*. First published in 1967, Derrida's work had yet to gain the cult status it now holds. *De la Grammatologie* appears tilted to the right with the word "savoir" inscribed at a right angle in block capitals.

Godard's use of Sapir and Derrida is playfully complex. Sapir's work perpetuates the traditional binary opposition that privileges speech over writing, while Derrida challenges the hierarchic elevation of speech over writing and, indeed, all hierarchic binary oppositions. Godard, while using a copy of Derrida's book nevertheless situates it within several binary oppositions. Taken together, Sapir's and Derrida's books juxtapose old versus new and tradition versus

innovation. Turning the books sideways and inscribing words on their covers at a ninety-degree angle, Godard depicts a fundamental Cartesian duality, the printed title forming the y-axis and the handwritten word the x-axis. Godard's juxtaposition of print and manuscript shows that writing, regardless of its relationship to speech, contains another opposition within itself, print versus manuscript. Though Kaja Silverman has argued that LE GAI SAVOIR challenges Descartes and follows Derrida,[11] Cartesian thought underlies Godard's most fundamental beliefs. The visual appearance of the bookcovers in the CINÉTRACT and LE GAI SAVOIR explicitly reveal his Cartesian outlook. Furthermore, Godard's theory of the image, which he had exemplified in practice yet had not articulated fully, is based on analogy, a method of comparison with its roots in Cartesian thought. Godard's reluctance to abandon Descartes for deconstructionism may explain Derrida's subsequent belligerence toward his work. Years later, when asked what influence Godard's oeuvre had had on the history of thought, Derrida, first apologizing for his brutal sincerity, replied, "Not the least influence, to my knowledge."[12] Derrida's derogatory comment, on the other hand, may simply reflect intellectual snobbery, the philosopher refusing to acknowledge one who works in a popular medium.

While Godard hesitated to accept the fundamental ideas underlying Derrida's thought, he was amenable to the general notion of challenging the ways of thinking and perceiving people take for granted. His juxtaposition of print and manuscript on a bookcover, while reinforcing several binary oppositions, does challenge another: public versus private. For centuries, print had been a public medium, one designed to disseminate ideas to a general readership while manuscript was a largely private medium, a way for individuals to express themselves from one to another. DEUX OU TROIS CHOSES and MADE IN U.S.A. critique the role of print within the consumer culture, yet the bookcovers displayed in both films retain the capacity to express important ideas. By the time LE GAI SAVOIR appeared two years later, however, Godard had begun to question seriously the capacity of print for conveying truth.

Kevin J. Hayes, associate professor of English at the University of Central Oklahoma, is the author of A Colonial Women's Bookshelf *(1996) and* Folklore and Book Culture *(1997). His latest work,* Poe and the Printed Word, *will soon be published by Cambridge University Press. The present article is from a book-length work-in-progress that examines the books that appear in the films of Jean-Luc Godard.*

ENDNOTES

1 Truffaut, François. 1966. "Journal of FAHRENHEIT 451." *Cahiers du Cinéma in English*, 5:11.

2 Godard, Jean-Luc. 1968. "One or Two Things." In Mussman, Toby, editor. *Jean-Luc Godard: A Critical Anthology*. New York: E. P. Dutton, 278.

3 Lesage, Julia. 1979. *Jean-Luc Godard: A Guide to References and Resources*. Boston: G.K. Hall, 78.

4 Godard, "One or Two Things," 278.

5 MacCabe, Colin. 1980. *Godard: Images, Sounds, Politics*. London: BFI, 68.

6 Guzzetti, Alfred. 1981., *Two or Three Things I Know about Her: Analysis of a Film by Godard*. Cambridge Massachusetts: Harvard University Press, 155.

7 Godard, Jean-Luc. 1972. *Godard on Godard*. Jean Narboni, editor and Tom Milne, translator. (Reprinted, New York: Da Capo, 242.)

8 *Godard on Godard*, 242.

9 Annie Goldman gives DEUX OU TROIS CHOSES a sociological interpretation in *Cinéma et Société Moderne: Le Cinéma de 1958 à 1968: Godard – Antonioni – Resnais – Robbe-Grillet*. Paris: Denoël, (1974), 161-166, yet makes no mention of Gard's allusion to her Husband's work.

10 Godard, Jean-Luc. 1967. "The Left and MADE IN U.S.A.?" In Godard, Jean-Luc. *Made in USA*. Michael Kustow, editor. London: Lorrimer.

11 Silverman, Kaja and Harun Farocki. 1998. *Speaking about Godard*. New York: New York University Press, 118.

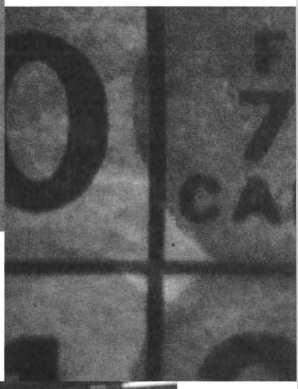
12 Desbarats, Carole and Jean-Paul Gorce. 1989. *L'Effet Godard*. Toulouse: Editions Milan, 110.

MARK OWENS

READING THE

WRITING AND THE CONSTRUCTION OF URBAN SPACE IN JEM COHEN'S

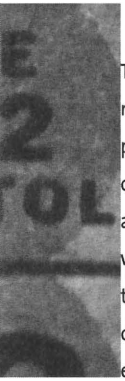
LOST BOOK



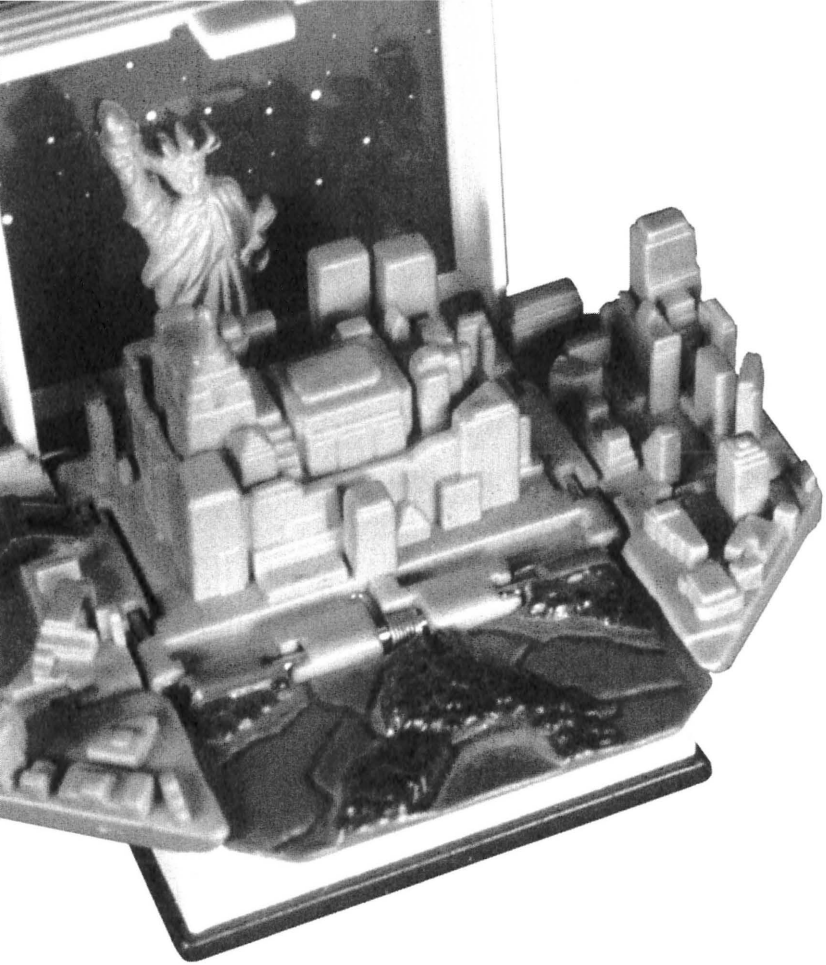
Yale University
New Haven, Connecticut
Visible Language, 34.1
Owens, 34-55

CITY:

READING THE FOUND



This essay takes the short film LOST BOOK FOUND (1996) by Brooklyn-based filmmaker Jem Cohen as an exemplary meditation on the materiality of writing in contemporary urban space. The film brings the materiality of the book form and the textuality of the city into contact through the memory of the narrator, who makes frustrated attempts to "read" the city and locate himself in urban space through various forms of writing: handwritten notices and flyers on the street, degraded and palimpsestic typography on the sides of buildings, prices and signs in store windows, various found objects and scraps of paper, blowing garbage tracing patterns on the sidewalk. The essay analyses these scenes of writing with reference to a number of important theorizations of urban space and argues that the film's attention to sites of low-capital exchange and street-level commerce represents an attempt to map the individual's relationship to a volatile urban fabric responding to postindustrial modes of investment and exchange that can occasion the rapid refashioning of entire city blocks. So doing, the film seizes on the spatialization of writing and the materiality of the book form as potentially redemptive sites for grasping the urban future and for understanding the city as a text that is ultimately authored by the material practices of those who walk its streets every day.



In beginning a discussion of a film that I take to be an exemplary meditation on the materiality of writing in contemporary urban space, it seems appropriate to begin, not simply with a quotation, but with an object. It is a souvenir keychain in the form of a small book titled, *New York Story*, and as the title promises, the tale this particular volume narrates takes in the scope of the entire urban landscape. For, when pressed, a button on the side triggers the spring-loaded cover of the book to open, revealing a model of Manhattan in miniature. Oriented to the south, the model is fronted by the green expanse of Central Park, with the Empire State Building and Twin Towers clearly legible in the cluster of buildings that forms its center, the Statue of Liberty looming larger-than-life in the background. Perhaps amusing enough as a clever piece of kitsch engineering, the keychain also embodies in a particularly condensed form the tension between the desire to grasp the complexity of contemporary urban space as a totality (meant here literally, as a holding in the hand) and the materiality of the book form that structures Brooklyn filmmaker Jem Cohen's remarkable film LOST BOOK FOUND (1996).[1]

Indeed, the keychain seems fetched from one of the many New York curio shops and discount stores that Cohen documents in such lush detail. Moreover, in its form as a book the keychain resonates with a number of foundational texts in the theorization of contemporary urban space that have drawn parallels between the city and the written text, among them a passage from Henri Lefebvre's *Right to the City*:

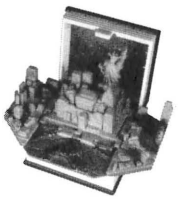
The city was and remains object, but not in the way of particular, pliable, and instrumental object: such as a pencil or a sheet of paper. Its objectivity, or 'objectality,' might rather be closer to that of the language which individuals receive before modifying it, or of language (a particular language, the work of a particular society, spoken by particular groups). One could also compare this 'objectality' to that of a cultural reality, such as the written book, instead of the old abstract object of the philosophers or the immediate and everyday object. Moreover, one must take precautions. If I compare the city to a book, to a writing (a semiological system), I do not have the right to forget the aspect of mediation. ...On this book, with this writing, are projected mental and social forms and structures. [2]

Here, Lefebvre uses the comparison to the written book in order to point up the specifically textual, or linguistic, character of urban space as a socially constructed form. As a souvenir that attempts to conceptualize the city in its totality through an exaggerated miniaturization of urban space through the form of a book, the keychain both embodies this textual understanding of the city and points up its inevitable failure. For, as Susan Stewart has remarked, the souvenir "is by definition always incomplete," standing in a metonymic relation to a now lost, supposedly "authentic" experience.[3] Just as the keychain seems to desire to "translate" the city into a book that can be grasped as a whole (from cover-to-cover), so too, LOST BOOK FOUND turns to the materiality of writing and the book form in an effort to grasp the disorienting space of the contemporary city as a readable text. Nevertheless, as Cohen's narrator discovers, the fragmentary writing that makes up the city is always inevitably a partial representation of the ever-shifting urban totality,

a jumble of handwritten notices,

decaying signs, and

scraps of paper.



Loosely documentary in format and composed largely of short scenes shot in Super-8 on the streets of New York during a six-year period in the early 1990s, LOST BOOK FOUND is semi-autobiographical, a fictionalized account based on Cohen's own experience as a street vendor when he first moved to the city. The film opens with several shots of Manhattan rooftops at night, as we hear the voice of the film's narrator attempting to locate himself in the urban landscape:

High above the city, there are thousands of views like these. I'm looking down from an office building and twenty-six floors below almost all of the executives and secretaries have long since caught their taxis and commuter trains home. I look west, wondering how far over you can see, if it is possible to find Ninth Avenue from any of these office windows. Far away, I hear a sound like the ocean – traffic, I guess. I can't see the west side of the city at all.

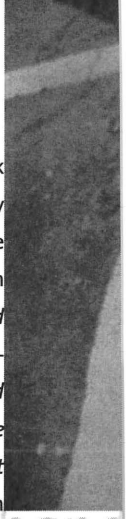
The scenes that accompany these remarks are sped-up time lapse images shot from the upper floors of a skyscraper. Figures jitter and move in the windows of adjacent buildings, and traffic lights streak haltingly along the avenue below. As Michel de Certeau has noted in his essay, "Walking in the City," traditionally this kind of view of the city from on high – atop the World Trade Center, in his example – enacts a scopic fantasy, a god's-eye view that would make the complexity of urban space readable in its totality as a "transparent text."[4] It is the dream, too, of the souvenir keychain, whose exaggerated topography attempts an impossible view of the whole of Manhattan. In opposition to this model, de Certeau insists that the city is actually written in the everyday practices and movements

of city dwellers walking on the streets, those who "follow the thicks and thins of an urban 'text' they write without being able to read it." (93) "The networks of these moving, intersecting writings," he insists, "compose a manifold story that has neither author nor spectator, shaped out of fragments of trajectories and alterations of spaces." (93) Similarly, Cohen's narrator cannot locate himself from the office building window – one of thousands of possible views. His gaze is partial, incomplete, and the remainder of the film thus turns to those who populate the city streets – the push-cart vendor, window shopper and pedestrian – in order to examine the fragmentary urban text as it is written at street-level.

Told in voice-over along with short, primarily black-and-white scenes of push-cart vendors, roughly the first third of the film following the rooftop scenes recalls the narrator's job ten years prior selling roasted peanuts on Ninth Avenue. The narrator explains that his position behind the cart provided a unique view of the city:

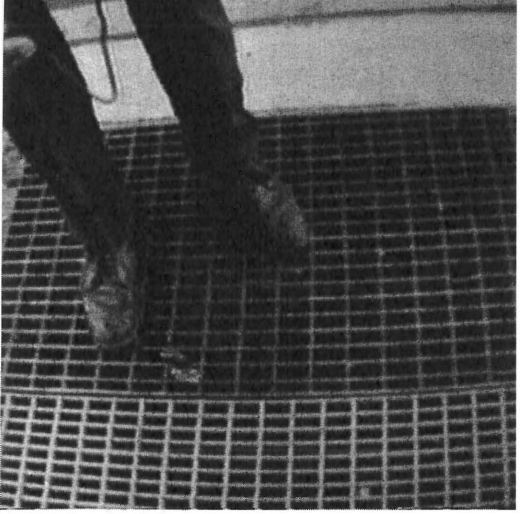
"I discovered that simply by standing behind the cart and selling I had put up both a wall and a window from which I could watch what happened on the street, on the block, on that long corridor of businesses and passersby. And as I became invisible I started to see things that had once been invisible to me."

Instead of the view from on high, it is this "window" made possible by a kind of street-level commerce that shapes both the narrator's and filmmaker's vision of the city. The remark is also accompanied by one of the first of many scenes of writing in the film, a jump-cut close-up of a faded sign painted on the side of an apartment building; a crumbling capital 'S' and 'H' straddle a window, the remnant of a piece of signage spelling out 'FISH' along the length of an entire floor. The scene suggests that the new invisibility made available to the narrator by his job as a push-car vendor includes an awareness of the various forms of writing that make legible changes in urban space over time.



The narrator goes on to describe an encounter with a sidewalk fisher, a man who gathers objects that have fallen through subway gratings, and it is in this figure that what Lefebvre might call the "objectality" of the city finds its most concrete representative in the film. The narrator explains that the sidewalk fisher had *"devised a wide range of systems and instruments for retrieving objects depending on their weight, shape, and how they'd fallen. He could tell a lot about certain metals by their distant appearance in the shadows under the iron gridwork, and he knew a great deal about the city."* Here Cohen presents a ground-level reader of the urban text, one for whom the city is legible in its discarded, neglected, and lost objects. The narrator goes on to explain that previously the sidewalk fisher had sold other objects, *"scrap metal, clothes, electronics, used books,"* and after asking if he had anything left to trade or sell the street fisher had returned with a peculiar book:

It was a composition notebook full of handwritten listings, page after page of places, objects, incidents, all having something to do with the city. …The book wasn't filthy or falling apart, but you could tell it had been around a long time. It reminded me, a little, on the outside, of something from school, maybe a notebook from a science lab. On the inside, it looked at first like a salesman's records – hundreds of addresses, dates, and so on. But it was carefully divided into chapters of some kind, and things were grouped with other things for some reason. And some of the groups were given titles or headings. It was those titles that made the whole thing strange.



The narrator borrows the book and reads it for a day, but decides not to purchase it from the sidewalk fisher. The listings, however, begin to haunt the narrator's memory, and the remainder of the film documents the process through which the categories in the lost book come to shape the narrator's experience of the city over the following ten years.

This experience, as the gestures to de Certeau and Lefebvre have already begun to suggest, is one in which the very space of the city is understood as a shifting, complex scriptive system, both a text to be read and a place of public writing. In this way, the materiality of the lost book – which is only ever glimpsed in the film as a shadowy object, or a blur of handwritten pages – and the textuality of the city are brought into contact through the figure of the narrator, whose frustrated attempts to locate himself in urban space are interrupted by the remembered voice of the book and its listings, dates, times and categorizations. Often these categorizations are heard in the background, or as a voice-over to specific scenes: shots of storefronts, signs in windows, graffiti and litter blowing on the sidewalk. For example, the narrator explains that *"'potential versus kinetic energy' was written by a listing of hundreds of liquor stores,"* and elsewhere the book-voice uses similar categorizations: *"atomic number"* describes prices in a grocery store window; *"conservation of matter"* designates a clearance sale display, *"the alchemist"* a pawn shop, *"Mendel's Law"* a men's clothing boutique, and *"the observatory"*

an establishment for off-track betting. Further, as the narrator explains, his attempt to make sense of the categorizations and their relation to the space of the city takes on a specifically textual dimension:

"And parts of the book come back in flashes, bits and pieces; sometimes the listing is triggered by reasons I couldn't guess. Certain places, things, incidents, that seem to fit like words in a crossword puzzle with a shape that's always changing, whose subject I was never sure of in the first place."

The categorizations seem to represent attempts to systematize the city's complexity through natural laws and logics, and are used throughout the film to designate various locations of low-capital economic exchange, including informal sidewalk bazaars, discount stores, resale shops and souvenir stands. This yoking of the scientific, the economic and the spatial resonates strongly with another foundational theorization of the modern city, Georg Simmel's "The Metropolis and Mental Life." In this essay Simmel argues that the very discontinuity of life in an urban money economy, its density of sensory phenomena and emotional intensity, gives rise to an increased dependence on quasi-scientific modes of calculation:

> The calculating exactness of practical life which has resulted from a money economy corresponds to the idea of natural science, namely that of transforming the world into an arithmetical problem and of fixing every one of its parts in a mathematical formula. It has been money economy which has thus filled the daily life of so many people with weighing, calculating, enumerating, and the reduction of qualitative values to quantitative terms.[5]

As Simmel explains, this predominance of systematization in the metropolis organizes life from the outside, "to the exclusion of those irrational, instinctive, sovereign human traits and impulses which originally seek to determine the form of life from within."(328-329) At the same time, however, Simmel finds that the contemporary division of labor into ever-greater specializations, combined with the sheer proximity and density of individuals in the metropolis, necessitates an increased need for self-individuation, leading to "the strangest eccentricities, to specifically metropolitan extravagances of self-distanciation, of caprice, of fastidiousness..." (336) That Cohen's narrator compares the lost book to *"a notebook from a science lab"* and *"a salesman's records"* locates the materiality of its writing within the scriptive practices of bureaucratization and the division of labor that Simmel delineates, while its idiosyncrasy suggests its function as a signifier of difference. Here, we might also remember that the sidewalk fisher is described as having developed *"a wide range of systems and instruments for retrieving objects."* Recalling Lefebvre, this parallel suggests that the narrator's memory of the book's lists are informed by a similar desire to understand the city in its "objectality," as a mysterious system, book or language that might be "read" through it's various forms of textuality – objects, notes, signage, graffiti, litter.

This connection between capitalism, textuality and urban space is made more explicit by Cohen's narrator near the end of the film, when he wonders aloud about the author of the lost book:

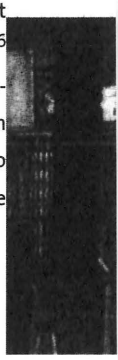
Who wrote the lost book? Are there really any laws and systems, scales, balances? What is the city made of? Sometimes it seems as if the city is the rubble of stories and memories, layers and layers, and that objects, all the remnants of things, are like the city's skin. Many of these objects, these leavings, are the relics of commerce, the simple exchange of goods and services. Most people spend most of their lives earning

a living. One man or woman's loss is another one's gain. Time is money. A man is selling puppets at the corner of 6th Avenue and 40th. It's 1993, and I'm watching from my car. Across the street to my right is a giant clock covered in plastic. Somewhere along the avenue I hear the

sound

sweeping. *of*

At this moment Cohen's narrator begins to reproduce the language of the lost book, recording the precise location and date, even as he questions the very idea of a system that would make sense of the city. But it is the unlocatable sound of sweeping *"somewhere"* on the avenue that nevertheless points to the processes of capitalism and exchange that continue unabated. This understanding of the city as a totality that escapes the perception of the individual, but which is nevertheless somehow legible in the material byproducts of capitalism – what I want to call its *"writing,"* understood in the broadest sense – points to a final series of critical terms that I want to bring to bear on a number of specific scenes of textuality in LOST BOOK FOUND. First, in its thematization of the city as a syntactic, scriptive system, the film could be seen to stand as an exploration of contemporary practices of "cognitive mapping." Working from terms developed by Kevin Lynch in *The Image of the City*, Fredric Jameson has explained that the practice of cognitive mapping, or the "mental map" of city space that shapes each inhabitant's personal relationship to the urban totality, becomes increasingly difficult to maintain with the expansion, alienation, and constant flux of the contemporary city.[6] Extrapolating this concept in order to describe the increasingly unmappable relationship of individual experience to the interconnected systems of global capital, Jameson calls for the development of an "aesthetic of cognitive mapping" that would begin to offer tactics for grasping those connections, thereby enabling political praxis and the development of a new sense of collectivity on a global scale.



LOST BOOK FOUND can, I think, be seen to contribute to this larger political enterprise, but in order to do so it is necessary to understand Cohen's own debt to earlier theorizations of modern capitalism and city space. Some clues as to this critical backdrop are offered by Cohen himself, when he describes the process of making the film: "I found connections between the street vendor, [Walter] Benjamin's '*flaneur*,' and my own work as an observer and collector of ephemeral street life."[7] Also, in the credits to the film Cohen mentions both Benjamin and *The Dialectics of Seeing*, Susan Buck-Morss' book on Benjamin's *Passagen Werk*, or *Arcades Project*.[8] For Benjamin, the *flaneur*, or the idle walker and observer of the nineteenth-century city was a liminal figure in the development of modern capitalism, someone whose "mode of life still surrounds the approaching desolation of city life with a proprietary lustre" and who occupies an uncertain economic and political position, neither a member of the urban collective, nor fully inscribed within the middle class.[9] As representative instances of this incipient modernity Benjamin turns to Baudelaire and the Paris Arcades, glass-roofed precursors of the shopping mall, which had become glorified flea markets by the early twentieth century, perfect analogues to the discount stores and clearance sales that Cohen documents in LOST BOOK FOUND.

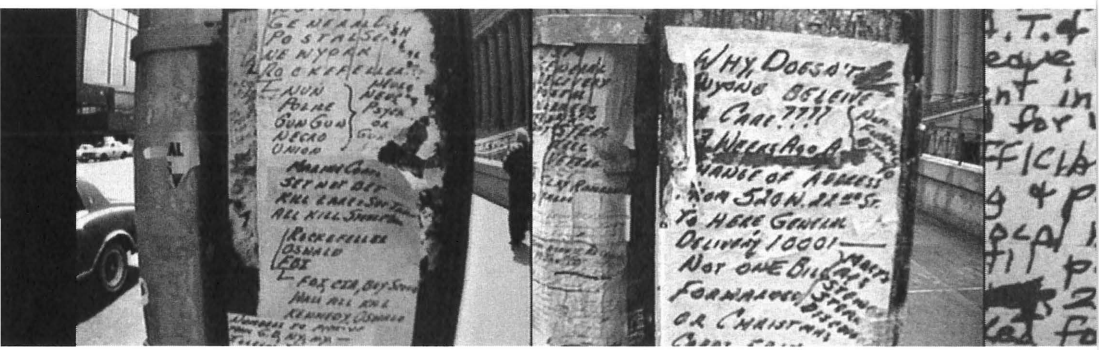
In his notes for the *Arcades Project* Benjamin seizes on the way in which the fetishized commodity comes to shape Baudelaire's remembered experience of the city. This characterization also resonates with the attention to discarded objects and textual ephemera that structure Cohen's film. Paraphrasing Benjamin, Buck-Morss explains that for Baudelaire:

> Experience is 'withered,' a series of 'souvenirs.' The 'souvenir' is the schema of the transformation of the commodity into a collector's item.' In Baudelaire's poetry, the experiences of his own inner life are subject to this same fate. ... Baudelaire, 'incomparable as a ponderer,' inventoried the moments of his past life as a clutter of discarded possessions, trying to remember their meaning, trying to find their 'correspondences.'[10]

These remarks return us forcefully to the territory of the souvenir keychain with which we began and ramify outward to implicate the specific "New York Story" that LOST BOOK FOUND has to tell. Just as Baudelaire is seen to relate to his past experience as a "clutter of discarded possessions" with hidden "correspondences," in the film the lists and categorizations of the lost book are often heard along with scenes or locations of discarded and outmoded objects and commodities – found items sold on the street, souvenir stalls with wind-up toys spilling onto the sidewalk, discount store window displays, "for rent" and "going out of business" signs. These locations also shape the narrator's experience of the city and his memories of the lost book, as he remarks:

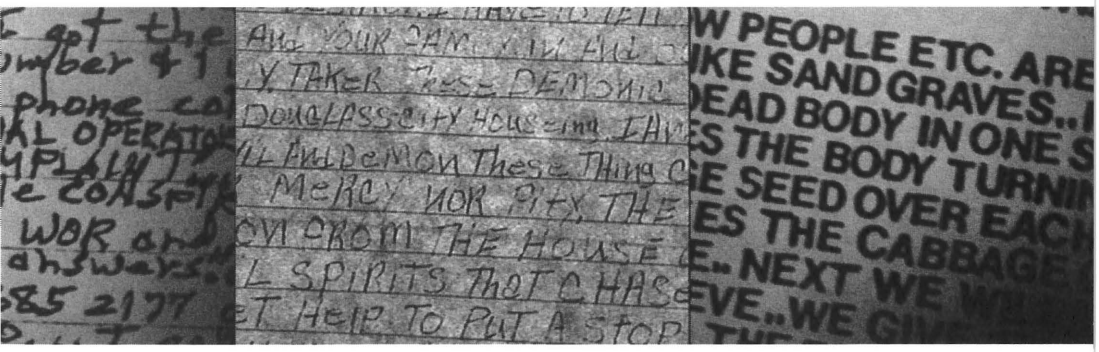
"The lists, the book memories, seem to be triggered by certain objects and places that have something in common. Perhaps most strongly of all I hear them in the discount stores and [video] arcades, where there isn't any weather, and the seasons are marked by different kinds of sales."

As we have already noted, these street-level spaces are also the locations of many of the scenes of writing in the film. These texts sometimes take the form of flyers that insist on "correspondences" similar to those expressed in the lost book, as the narrator remarks:



There are handmade notices around the city, xeroxes, broadsides, posters. I often see them in front of the main Post Office. A lot of them are religious. Sometimes they're about things that happened to someone, about how the Post Office is holding their checks, or somebody in government has it out for them, detailed connections between agencies, doctors, officials. Others are harder to figure out. Something about reading clouds for faces and messages, systems of numbers, patents, theories of electricity, science and business schemes. I used to read these broadsides, and whenever I saw hand-written messages I read them too. I might have been looking for clues, or maybe it just got to be a habit."

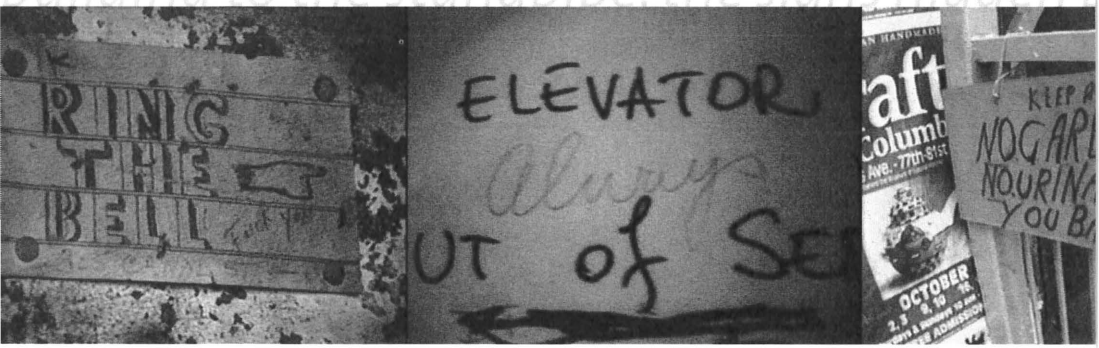
These scenes of writing locate the lost book within a larger category of urban textuality that seize on urban space as a forum for "disruptive" expression and critique. Conspiracy theories, personal crusades, unhinged metaphysical speculations: all of these forms of writing address a presumed public audience and exhibit a particular discursive impulse, the desire to make connections, to wrest meaning from the flux of urban experience. It is an impulse



that the film's narrator comes to share as he reads the handwritten texts he encounters. In a number of instances these objects bear the material traces of human interaction: a notice reads "Ring the Bell," with a crude "Fuck You" scrawled beneath it; a note reading "Elevator out of service," "Always" inserted between the lines in another hand. In addition, several of these handwritten forms of textuality are explicitly commercial in nature, including marked-up lottery tickets and scratch games, a sign inviting consumers to "Get loose and shop," and a note that reads: "To Mom may you get lots of money Love Kisha."

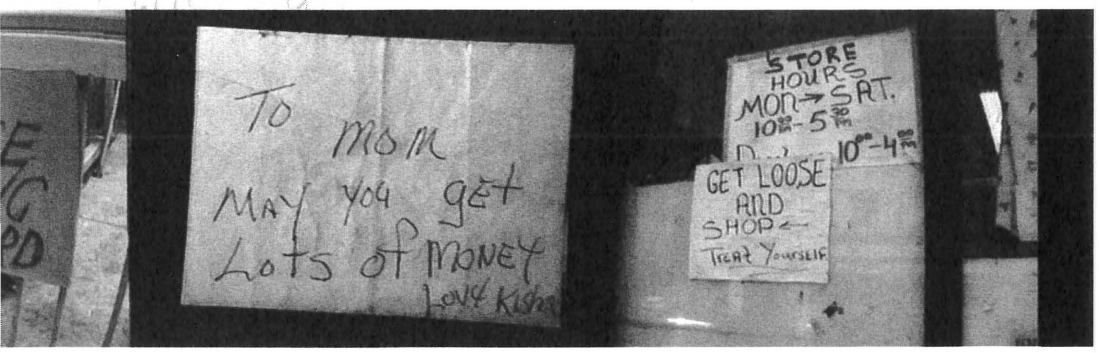
A final category of texts in the film are architectural, signs on buildings with degraded, palimpsestic, or missing typography, and while these are not obviously forms of public writing in the same sense as the various handwritten messages in the film, they do suggest the way in which the contemporary city is also characterized by rapid, large-scale spatial changes on the level of real estate that contribute centrally to the alienation and dislocation of the individual. This connection is made explicit near the end of the film when Cohen's narrator remarks:

I can't tell why one place feels like another, what ties parts of the city together. I can't even remember what buildings used to be here just a month or so ago. I know that everything can't be important. A business card printed for one reason and dropped for another, the measured distance from the building to the standpipe, the signs hidden behind other sign on the sides of buildings.



Here, the shifting textuality of the city is seen to extend in scale from the discarded object – the dropped business card that stands in for all of the textual 'leavings' of everyday capitalist exchange – to the buying and selling of urban space itself, a trajectory that could be said to trace the expansion and abstraction of capitalism from modernity to postmodernity, from industrial modes of production rooted in business and manufacture to more abstract modes of production like land speculation, finance, and the stock market.

This trajectory thus brings us back to the question of how LOST BOOK FOUND, and specifically its attention to the materiality of writing practices and the book form as a way of grasping the complexity of contemporary urban space, might be seen to contribute to a contemporary aesthetic of cognitive mapping. As Jameson has argued in a recent article, land speculation, along with finance capital, represents one of the most abstract forms of postmodern investment and can be seen to have shaped the massive repurposing of space in New York City over the course of the twentieth century, during which large areas have been converted from manufacturing and small businesses to office space for financial, insurance and real estate companies.[10] While his subject is architecture, and Rockefeller Center in particular, the connection Jameson makes between "the spatial history of New York" and postmodern modes of investment allows us to locate the instances of cognitive mapping in LOST BOOK FOUND, both the peculiar taxonomies of the lost book and their effect on the film's narrator's experience of city space, within the problematic posed by Jameson's aesthetic of cognitive mapping. That is, the sense of placelessness and dislocation repeatedly expressed by

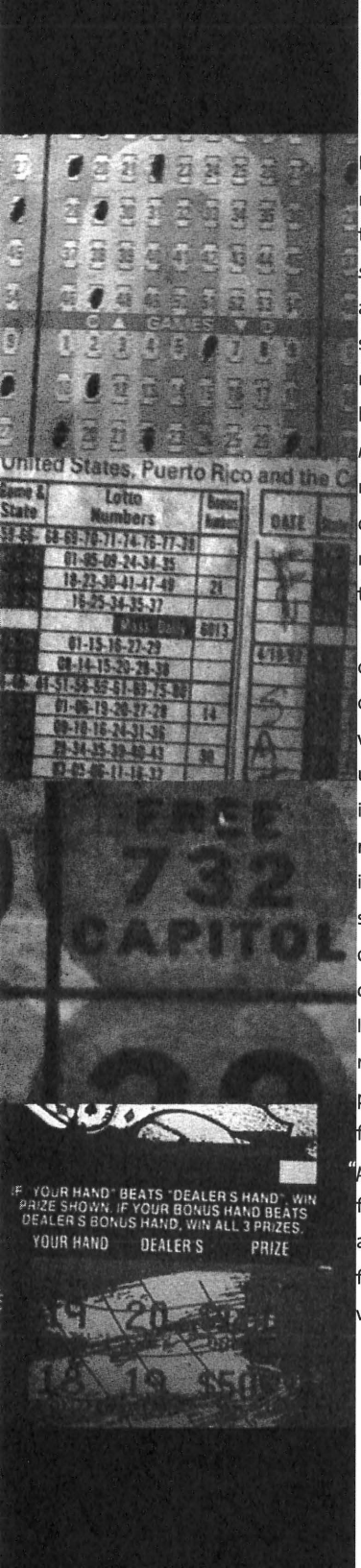


the narrator of LOST BOOK FOUND can be seen as a response to the volatility of an urban fabric constantly being reshaped by modes of investment and exchange that can occasion the rapid refashioning of entire city blocks. This phenomena is mentioned when Cohen's narrator recalls returning to the city after a period of absence.

When I moved back there were whole areas I didn't recognize... Blocks of buildings had given way to new office towers, but a lot of them were unable to find tenants. It was while I was driving in midtown looking at some of the new buildings that another one of the book's headings came back to me, and that was the phrase, 'Glass is a liquid.'

Cohen's narrator repeatedly expresses this sense of exasperation and dislocatedness; he *"can't even remember what buildings used to be here just a month or so ago,"* and remarks that the categories of the lost book *"began to seem more and more useless and crazy, the idea that anyone thought that they could connect so many things, that there was any kind of order."* But despite this sense of bewilderment, in his attention to the materiality of writing, locations of low-capital exchange and the book form the film's narrator does, I think, begin to suggest something on which an aesthetic of cognitive mapping can find purchase. In the final moments of the film the narrator explains the way in which the remembered categories in the lost book and his subsequent attention to the numerous forms of textuality in the city have forever changed his experience of urban space:

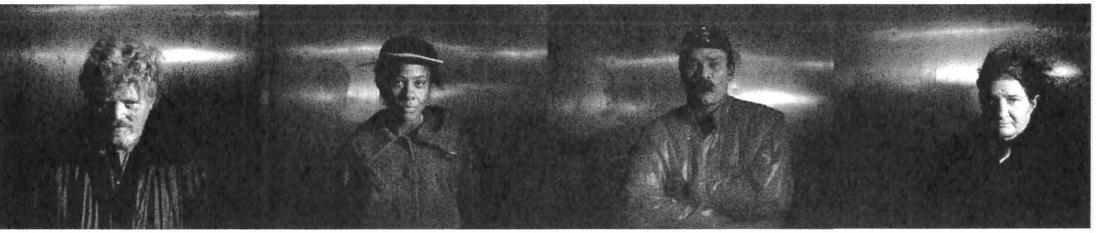
It's ten years since my job as a pushcart vendor. I pass over the streets of the city and I still find myself asking: who wrote the lost book? Sometimes I still hear their voices making lists in my head. I walk into a hallway and see twenty other hallways; one store window becomes fifty store windows; one store for rent, one thousand stores for rent. I look and see a scrap of paper, face down – a weight loss program, a job application, a torn up letter. I keep seeing other pieces of paper, and I have to turn them over, too. I'm riding in an elevator and the numbers keep on going, past the number of floors in the building, past the prices of the discount sale, past the numbers of this week's lottery.



If not precisely a vision of coherence, at this moment Cohen's narrator does articulate a sense of spatial interconnection, a multiplication and condensation – *"one store for rent, one thousand stores for rent"* – that reverses the *"thousands"* of partial views available from the office window at the opening of the film. These scraps of paper, flyers, signs, and textual ephemera, like the commodities in the discount sales and sidewalk bazaars that populate the ever-shifting urban landscape, are those *"relics of commerce"* that form the material texture of our own embattled, postmodern urban spaces, connecting them. What Cohen's narrator describes is a kind of urban hypertext whose reading requires a new kind of exponential thinking, an expansion and proliferation along the material byproducts of postmodern capitalism.

Through the figure of the *flaneur* Benjamin looked to the outmoded, kitsch commodities of urban industrialism at the turn of the century for their residual revolutionary potential, for the way in which they held within their very material form a kind of utopian, collective wish. In the so-called postmodern or post-industrial era of the turn of our own century, in which cybernetic modes of investment and global commerce appear to be displacing more traditional kinds of exchange, Cohen's attention to spaces of street-level commerce seizes on the city both as a space of public writing and as a text that is written by the public.[11] The collective potential of this sense of urban textuality is glimpsed, I want to suggest, in the closing moments of the film when Cohen moves from scenes of the city, in which individuals only ever appear as parts of the crowd – either moving past the camera or from behind, gazing into store windows – to a series of thirteen *"portraits"* shot in front of Madison Square Garden. These images follow the narrator's final question, *"Who wrote the Lost book?"*, and suggest that anyone could have written it. In this way the future of the city, its inevitable, ongoing authorship by those who walk its streets every day, is left an open and enabling question.

It is appropriate, then, that LOST BOOK FOUND concludes with a return to the street fisher, who is seen at beginning of the film pulling something up from a subway grating. In the final seconds of the film this object is retrieved and handed to the camera. The camera cuts to a round metal tag with "CABLE NO. N.Y.TEL.CO." inscribed on its surface, lit in the same dim light in which the lost book was glimpsed earlier in the film. It is a nondescript bit of urban detritus whose written surface nevertheless points to its origins in the massive system of global communications networks administered by the New York Telephone Company, better known as Bell Atlantic. The street fisher's open hand is the only gesture out to the viewer in LOST BOOK FOUND, and thus might stand in for Cohen's own gesture in making the film. Shot largely in the outmoded medium of Super-8 and available only on video – itself an increasingly endangered medium – the film offers a vision of the postmodern city as an interconnected fabric of transitory texts whose very materiality might help us begin to grasp our relationship as individuals to the infinitely complex spatial dynamics that shape our world.



THE AUTHOR WOULD LIKE TO THANK JEM COHEN FOR HIS SUPPORT OF THIS PROJECT AND PAUL ELLIMAN FOR HIS EXAMPLE.

Mark Owens is a graduate student in the Graphic Design Department at Yale University. This essay is part of an ongoing thesis project exploring writing, space and the city; it is his first publication.

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obal Positioning System (GPS), are new tools
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f 'being within' that merges the personal and
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VISUALIZING PLACE

ANDREA WOLLENSAK

Satellite technologies, specifically Glo

for naming orienting, locating and rec

Like words, places are articulated by a thousand usages. They are

GPS permits a mode of performance o

thus transformed into "variations" – not verbal or musical, but

political and questions contemporary/

spatial – of a question that is the mute motif of the interweaving

paper, I explore these concerns throug

of places and gestures: where to live. These dances of bodies

using GPS technologies. Gesture, mer

haunted by the desire to live somewhere tell interminable stories

poetics within an absolute lattice of

of the Utopia we construct in the sites through which we pass.

of the individual's place is re-construct

They form a rhetoric of space. They are steps (dance figures), glances

munication of the movement of gestur

(composing mobile geographies), intervals (practices of distinction),

navigational-numerical space, the ex

criss-crossings of solitary itineraries, insular embraces. These ges-

new starting point for aesthetic and se

turations are our everyday legends. They open up unpredictable

THE VISIBLE LANGUAGE OF PLACE is a myriad and inter-

spaces in an order of sites. They also play within the labyrinth of

related communication of the civic and the personal, the contem-

city signs (street names, advertising slogans, historic landmarks,

porary and the historical. Place is understood in a very individual

commercial, political or academic identities), in the same way in

way as socio-geographical perceptions become internalized as

which the voice wanders, delinquent, stubborn, through the net-

memory. Place is apprehended dualistically – with cognizance of

works of the linguistic systems, tracing pathways foreign to

distinct cartographic and topographic realities. In the naming and

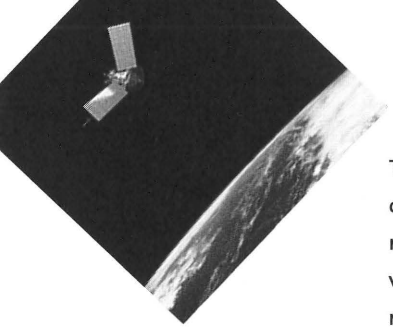
the meaning of the sentences.[1] MICHEL DE CERTEAU

defining of territory, place directly comports our demographic

reality, giving us a sense of belonging to our original place, and

helping us to reify the otherness of

elsewhere.



The relationship of individual expression to place belies our cultural needs to name, to identify and to own. But within this relationship lies decidedly more profound opportunities to develop modes of expression beyond claiming territory or documenting our passage through the places of the world. Global Positioning System (GPS),[2] a technology that increasingly helps us to define with precision where we are going and to orient and refine our bearings, has a unique capacity to record our passage within an absolute terrestrial grid. This permits a mode of expression quite different from prior filmic technologies, which necessitate the privileged and obfuscatory vantage-point of a camera's location. GPS is the terrestrial panopticon of place, position and movement – an invisible virtual space of concrete data. In contrast to the optic representation of landscape through the naked and surveilling topography of photographic satellites, GPS is most concerned with the numerical relationship of one subject moving towards a destination.

My recent artwork has focused on the relationship of gesture, memory and notational traces of place within – the context of GPS technology. The gesture of movement within the absolute lattice of GPS coordinates is explored to reveal the powerful and expressive visuality of place in the context of exact individual locality. The literal recording of the individual's place is re-constructed through my art as visible gestural communication. As such, the user/technology relationship is redefined with relevance quite different than the standard GPS goal-directed quantification of bearing, heading and correctable margin of error. Instead of constricting language to a narrow navigational-numerical space, the user/technology relationship becomes a starting point for aesthetic and semantic creativity.

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l from dancers exploring the urban landscape of

The Mexican project connects art inspired by local

petroglyphs with a real-time realization (and his-

sualization) by the artists in flight. The New York

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Both projects record the gestures of movements

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On July 18, 199

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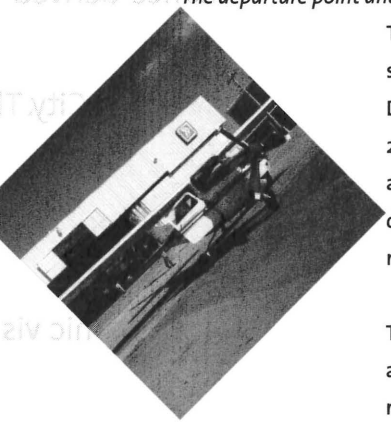
in the air to complete.



The departure point and southern boundary of the drawing was the town of Chihuahua.

The northern point of the drawing was the airport at Juarez, a small border town near El Paso, Texas. Most of the Chihuahuan Desert – the largest desert in North America covering more than 200,000 square miles – extends into parts of New Mexico, Texas and sections of southeastern Arizona. The topography of the desert varies from dry flat land to moderately mountainous terrain. There is also some agricultural farmland near the town of Chihuahua.

The projects premise was to overlay the desert with cultural and site-specific gestural line drawings using two Garmin GPS receivers connected to Navstar satellites. The GPS was used as a beacon that informed us where we were and recorded our passage over the site. Beginning at Chihuahua, we left by plane to begin the first detailed component of the drawing. The pilot navigated from a computer screen containing a pre-drawn line superimposed on a scanned map (FIGURE 1). The GPS software allowed the pilot to see our position on the screen visualized as a red crosshair. Surprisingly, the pilot was watching the laptop screen on the passenger seat more than out the front window of the plane.

SATELLITE SITE DRAWINGS OF CHIHUAHUA

The drawing was based on an interpretive composite of regional petroglyphs, celestial signs and local Chihuahuan landmarks (FIGURE 2). The final drawing included a three-dimensional rectangular box-form that signified sculptures located in Chihuahua created by Sebastian, a contemporary Mexican artist and participant of the project. Time was mapped visually through symbol and represented in the drawing as a celestial sign – the sun/moon – indicated by a small circle with larger half-circles enclosing the left side of the center form. The time of the flight and the content of the drawing were interconnected conceptually as the day of the flight was a full moon.

FIGURE 1

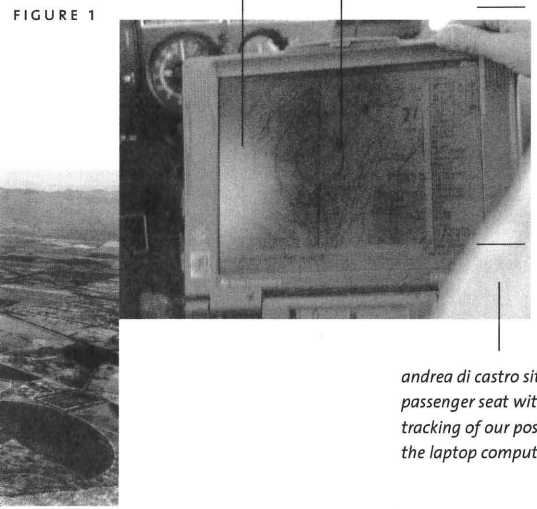


FIGURE 2

There were some differences between the original art drawing and the GPS flight drawing (FIGURE 3). For example, the line traced by the plane permitted no discontinuity, whereas the artist had, in some cases, drawn distinct line segments. The flight drawing altered the geometrically idealized qualities of the original drawing into smooth curves and subtle variations induced by weather and steering. The northern part of the drawing was modified by the need to refuel during the flight and the location of the nearest air-strip. The other significant restriction was that we are not allowed to venture across the border into the United States, which imposed a northern limit on our travel. The freedom of airspace we enjoyed and the clear and unobstructed connection to satellites led to continuous lines and curves in the GPS flight drawing. In contrast, the New York GPS project showed random displacements caused by signals ricocheting between tall buildings.

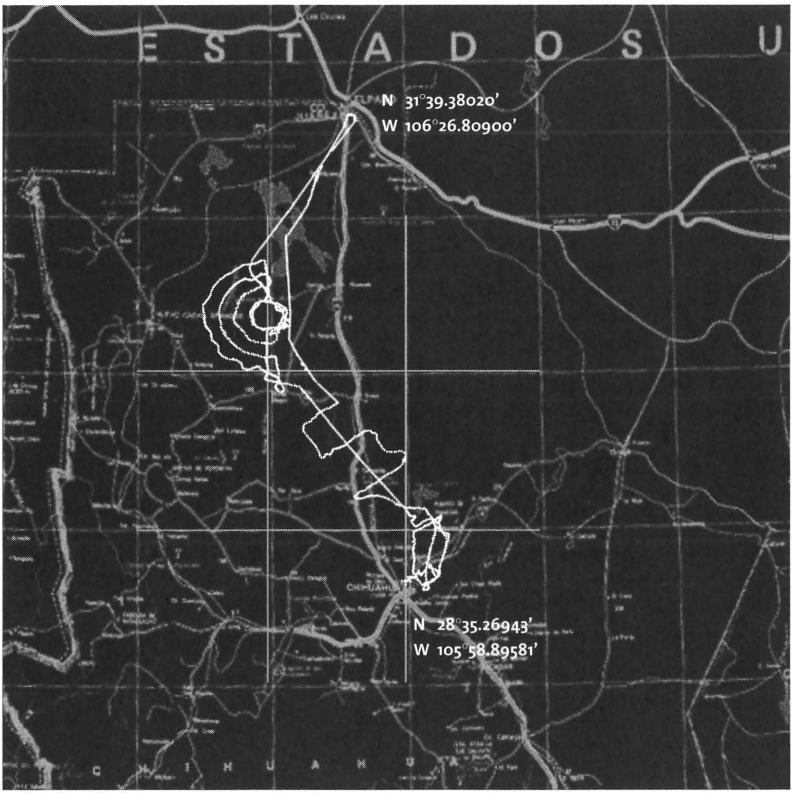


FIGURE 3

Two-dimensional data: Chihuahua drawing, Mexico
flying over the Chihuahua desert in a Cesna for 7 hours stopping in cd. Juarez for a soda

south/north distance of drawing: 334.5082km
DATE: *July 18, 1997 full moon*
TIME: *9:17am – 5:25pm*
TRACK SET UP RECORD: *fill x2*
TIME INTERVAL: *00:00:30*
MEMORY USED: *100%. 1024/1024*

The many representations of cartographic maps – national, socio-demographic, historical and topographic – each imbue the landscapes they define with particular perceptual biases. Although each represents different characteristics and data in a visual form, there are many facets of the landscape that resist the normative cartographic lens. The cartographic form afforded by GPS is unique in recording, in Michel de Certreau's words, the gesturations of itineraries and the dances of bodies in a rhetoric of space. The dynamic and spatial mapping of social movements and social interactions is in marked contrast to static views of geography and population. GPS cartography constructs a personal visible language of movement for the user, marking points of relevance with waypoints.

CARTOGRAPHIC REALITIES

Defining our 'place' in the world is a cornerstone in our notion of identity. Introducing a set of essays entitled Place and the Politics of Identity Michael Keith and Steve Pile note:

"New spaces of resistance are being opened up, where our 'place' (in all its mea considered fundamentally important to our perspective, our location in the wo our right and ability to challenge dominant discourses of power."[4]

GPS can be used as a unique visualization (and quantification) of place that challenges dominant readings of socio-territorial perspective. Keith and Pile continue:

...it may be argued that simultaneously present in any landscape are multiple enunciations of distinct forms of space – and these may be reconstructed to the process of re-visioning and remembering the spatialities of counter-hegemonic cultural practices.[5]

GPS also represents an inversion

of the individual marking the outdoor environment with publicly readable expression. With GPS, expression is realized as a spatial-temporal path marked by the environment a public movement recorded as private data. GPS participates as a technology to map 'sites of resistance' (Frederic Jameson's term), helping to create personal history and to re-orient individuals to their position in the world. In so doing, GPS is a tool in developing what Jameson describes as needed to recover these sites:

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The city represents, to many writers, a vast plurality of semantic readings of landscape, transition and the cultural forms of capitalism. Sharon Zukin argues ***"that the localism, or neighborhood urbanism, of the modern city has been transformed into postmodern transitional space."*** In the creation of the city as cultural category, it's ***"sense of place has succumbed to market forces. Thus, the postmodern urban landscape imposes multiple perspectives which are not only wedded to economic power but also facilitate the 'erosion of locality – the erosion of the archetypal place-based community by market forces.'"***[7] The New York project described below is an exploration of GPS re-visioning the locality of personal significance within the context of the urban environment.

imagination capable of confronting the

ess tangible secrets off the template of

- body, cosmos, city, as all those marked

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stic forms.[6]

EXPLORING THE NEW YORK CITY URBANSCAPE–DRIFTING: MEMORY SPACE

Last summer, I collaborated with choreographer Anita Cheng on a dance project in New York City incorporating GPS for documenting and interpreting movement. This project involved recording three paths determined by dancers wearing GPS receivers, each of which explored different places of personal significance within the city. These sites included areas in west midtown Manhattan, in midtown's East Side and in Northern Little Italy around Mott Street.

The dancers moved about the city collecting GPS data. The coordinates of their movements were recorded and relayed back to the choreographer (FIGURE 4).

FIGURE 4

FIGURE 5
movement data projected from computers onto large screen in dance space

In the studio, the stream of data was downloaded onto a computer and projected onto a screen in the dance space. As more data was fed in, the line drawing became thicker (FIGURE 5). Scale was used to separate different paths visually and to identify distance of urban sites in relation to the studio dance space. The dancers interpreted the stream of digital data into improvisational and choreographed movement.

The choreographic process explored the space/time connection between drawing and movement. Visualizing motion associated with personal memories of particular places became our Rosetta stone. The act of describing a remembered space emerged immediately as the strongest way to generate movement. We wanted to avoid developing steps resembling codified or class conditioned sequences. In planning the project the choreographer explained:

"I was interested in drawing on the individuality and uniqueness of each of the dancers. So I began to ask them personal questions that related to their memories of space. Dancers and non-dancers alike became animated, intent and specific when describing their childhood homes or other significant sites. They would move through the space completely focused and build their personal spaces within the rehearsal space. This was also interesting on camera because the lens picked up on the intensity of their emotional engagement."

Two layers of a new vocabulary emerged in the process of the work: personal memory (a subjective experience of place), and a vocabulary of movement built from the data coordinates. The interpretations of the GPS data used by the choreographer varied from literal recreations of the urban paths into paths on the dance floor, to body shapes and gestures made in space. The distance and angles between some of the GPS data points were used to direct emphasis of gesture and order of sequences (FIGURE 6).

The three site drawings show location (black and white aerial photographs of Manhattan), memory (personal descriptive narratives), the path traversed (a string of crosshairs) and GPS site-specific data. The simultaneous presentation of location, memory, path and data reference back to a performative event involving multiple variables at a particular moment. In the drawings, I chose to highlight this simultaneity in order to characterize the nature of GPS data as parallel streams of longitude, latitude, altitude and time, as well as the duality inherent in experiencing place as an ontological phenomena while simultaneously constructing an ontical-numerical history of place. This reading of place is not immune to the irony that in the recording of the 'here and now,' one is presumably not entirely 'present' owing to the distraction generated through the use of the GPS technology. The pilot's flying our plane in Mexico while looking at the laptop screen instead of out the window is a fitting example.

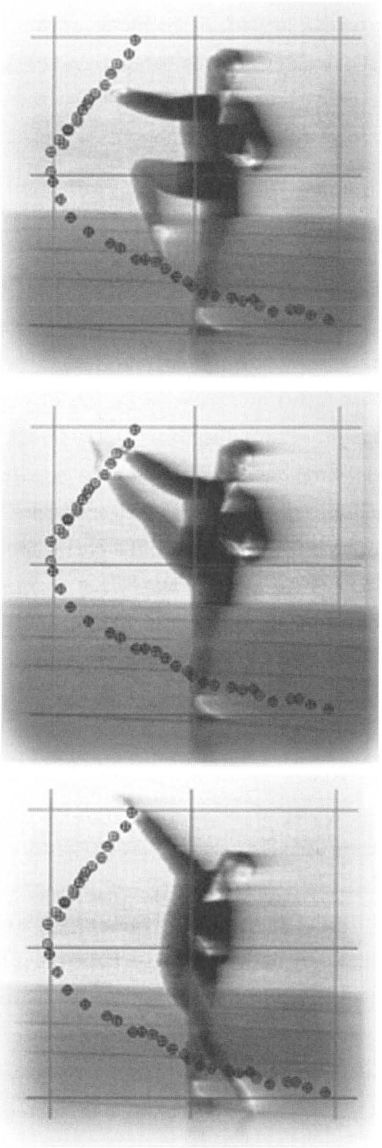


FIGURE 6

Dancer interpreting data gesture in studio space. Images created by Anita Cheng and Ronaldo Kiel. 1999.

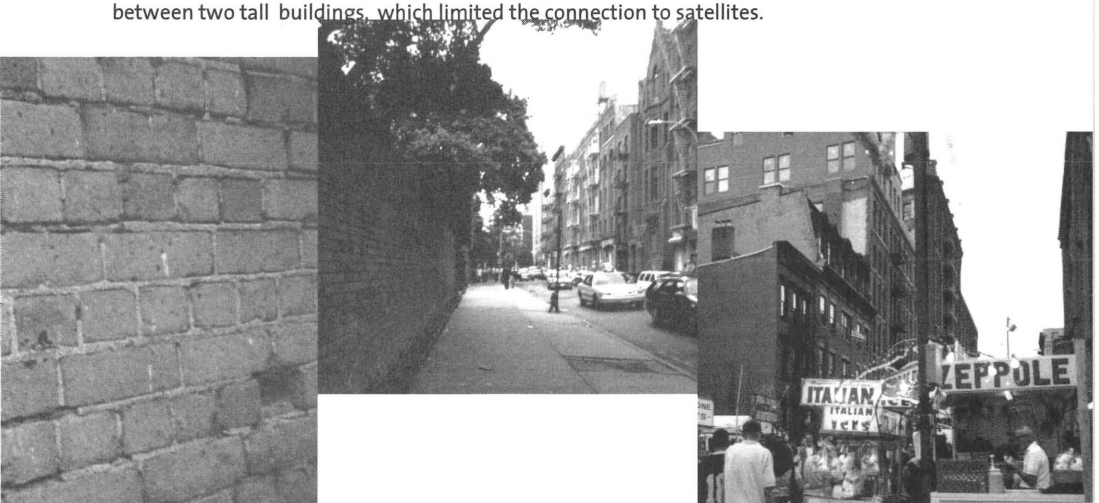
DESCRIPTIONS OF THE NEW YORK GPS SITE DRAWINGS

The meeting place (FIGURE 7) described a walk from the Empire State building to the neighborhood of the Chrysler Building. The dancer recalled memories of that walk as she retraced her steps passing familiar landmarks and social formations (elderly ladies waiting in line for the Madison bus). The walk occurred at noon when the streets were hectic.

The houseguest (FIGURE 8) was a walk on the West Side of Manhattan to a neighborhood that the dancer had not been to in fifteen years. Revisiting the neighborhood allowed her to remember her first visit and her mindset of moving to the city.

The neighborhood, (FIGURE 9) the final path mapped with GPS in this series, explores the neighborhood around Mott, Houston and Prince Streets. This walk covered less ground and has overlapped areas on Prince Street between Mott and Lafayette. Photographs were used to record the visual external markers on the walk: the texture of the brick wall separating Mott street from Old Saint Patrick's cemetery and Mulberry at Prince streets during the San Gennaro Italian street festival.

The path reveals the characteristics of movement and variations of speed as seen in clustering, dense and stretched-out data in straight and circular lines. The data also showed limitations in positioning through distinctive silences, blank spaces and distortions in the collection of positions. Buildings in urban spaces obscured connectivity to satellites and threw position off considerably. The drawings document the range of error within the city. There are segments of the path that are discontinuous and position points that are nowhere near to the actual path. Much of the range distortion occurred while passing between two tall buildings, which limited the connection to satellites.



Just about noon on a warm, sunny day my walk began from the Empire State Building. It was lunch rush hour, and the smell of greasy food was in the air. As I walked so often in the past, I ventured east to Madison Avenue passing the pierpont and the old ladies waiting at the bus stops. I remember the neighborhood near the Chrysler Building as a place to meet Mike for lunch, it was long ago but little had changed in the visual environment. The buildings, signs and cracks in the sidewalks were the same.

Two-dimensional data
Walking from 34th Street and 6th Avenue east then north on Madison Avenue
DATE: *July 26, 1998. 11:35am – 12:40pm*
TRACK SET UP RECORD: *fill*
TIME INTERVAL: *00:00:10*
MEMORY USED: *100%. 1024/1024*

Drifting: Memory Space #1: The Meeting Place

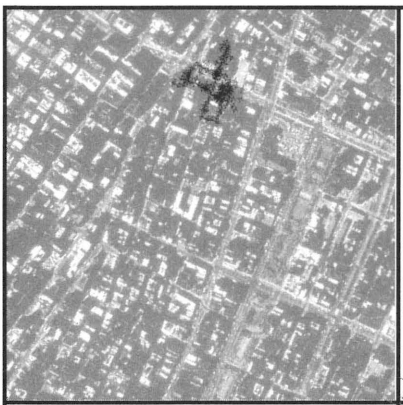
FIGURE 7

The last time I was in this neighborhood was 15 years ago when I moved to the city. I had $150, no job, no apartment but some very supportive friends. I was in this neighborhood back then staying at a friend's place. The walk from the subway to the apartment was clearly unsafe as it still seems the same today. There are some new restaurants, a lot of activity at the street corners, and a couple of sleepers nodding on front stoops and in dusty corners.

Two-dimensional data
Walking in Manhattan in the neighborhood
DATE: *July 26, 1998. 5:04pm – 7:10pm*
TRACK SET UP RECORD: *fill*
TIME INTERVAL: *00:00:10*
MEMORY USED: *100%. 1024/1024*

Drifting: Memory Space #2: The Houseguest

FIGURE 8



It's the end of the day. The light is shifting and making the brick on the church wall a dark and rich color of red earth. So many times I have walked this small area of the city feeling anonymous yet also a participant in a neighborhood which is part of a larger urban fabric. It's a place in the city where the Italians celebrate San Gennaro with street parties. If I wake up and go out for coffee early enough I can walk past the elderly Chinese women stretching in tai chi gesture on the sidewalks.

Two-dimensional data
Walking through the streets of the neighborhood, mott, houston, prince
DATE: *July 26, 1998. 8:42pm – 9:24pm*
TRACK SET UP RECORD: *unfill*
TIME INTERVAL: *00:00:10*
MEMORY USED: *61%. 530/1024*

Drifting: Memory Space #3: The Neighborhood

FIGURE 9

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The work documents 'the deposit of a memory trace' in describing the characteristics of a city plan. Kevin Lynch remarks ***"by appearing as a remarkable and well-knit place, the city could provide a ground for the clustering and organization of meanings and associations. Such a sense of place in itself enhances every human activity that occurs there, and encourages the deposit of a memory trace."***[9] If indeed the amelioration of the urban environment is reflected in the additive deposits of individual meaning, GPS affords us a similar although quintessentially digital modality for attaching meanings to places.

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are multiple perspectives: market

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creative applications. The role of the

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In similar fashion to the development of longitude, GPS enhances our spatial imagination in historical step with technological advances in the precision of time-keeping. As the problem of longitude depended on independent clocks remaining synchronized in spite of inclement weather while at sea, the advent of precise atomic clocks makes possible the timed triangulations necessary for GPS's precision. Thus, the characterization of place made by GPS inherits a temporal bias, by means of which it forms its own virtual cartographic historiography.

Andrea Wollensak is an associate professor of Art and Associate Director at the Center for Arts & Technology at Connecticut College. Her work, which explores the intersections of design, culture and technology, has been presented and published nationally and internationally. Together with Brett Terry, they direct Leverkuhn Studio, an experimental design and sound studio.

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THE AUTHOR WOULD LIKE TO THANK BRETT TERRY FOR PROVIDING SUPPORT AND ASSISTANCE IN EDITING THIS ESSAY.

ENDNOTES

1 de Certeau, Michel. 1985. "Practices of Space." In Blonsky, Marshall, editor. *On Signs*. Baltimore: The Johns Hopkins University Press, 131.

2 GPS and DGPS (Differential GPS) are satellite-based navigational technologies developed by the U.S. Department of Defense. Now available for commercial use, the systems claim to revolutionize the navigation industry, allowing individuals to know their position with unprecedented accuracy anywhere on earth. The system, based on triangulation, is comprised of a constellation of 26 satellites that orbit the earth. The satellites each contain extremely accurate atomic clocks which are perfectly synchronized, which is the basis for measuring the time it takes an encoded radio signal to travel from the satellite to the GPS receiver. When the signal-travel times are calculated from four well-spaced orbiting satellites whose positions are precisely known, the position of the receiver becomes known. Up to date status of Coast Guard DGPS broadcasts is available at *http://www.navcen.uscg.mil*

3 The project was organized by Andrea DiCastro, director of the Multimedia Center at the National Center for the Arts in Mexico City. The crew and collaborators included Jose Férez Kuri, Humberto R. Jardón, Andrea Wollensak, Edmundo Dìaz, Sebastián, Alberto Gutiérrez Chong, Armando López, Héctor Moreno, Carlos Salom, Ignacio Del Rìo and Alejandro Nava.

4 Keith, Michael and Steve Pile. 1993. "Introduction: The Politics of Place." "*Place and the Politics of Identity*. London: Routledge, 6.

5 Keith, Michael and Steve Pile, "Introduction: The Politics of Place," 6.

6 Jameson, Fredric. 1991. *Postmodernism, or the Cultural Logic of Late Capitalism*. London: Verso, 364-7.

7 Keith, Michael and Steve Pile, 7-8. Quoting Zukin "Postmodern urban landscapes: mapping culture and power." In S. Lash and J. Friedman, editors. *Modernity and Identity*. Oxford: Blackwell, 222-240.

8 Anita Cheng, describing to me her interest in personal gesture as a basis for choreographed movement. This exchange led to other collaborative projects including a website titled home of the gesture, architecture and memory between generations," which is a site that explores a remembered architectural space recalled by Anita's grandfather during his childhood in Beijing, China. Gesture, memory and social aspects of architectural spaces inspired by his recall are explored through choreography, mapping and sound. The URL is *http://n2.burnettgroup.com/gesture* created by Anita Cheng, Ronaldo Kiel, Brett Terry and Andrea Wollensak.

9 Lynch, Kevin. 1960. *The Image of the City*. Cambridge: MIT Press, 119.

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PHOTOGRAPHY CREDITS

FIGURES 2-5: Andrea Wollensak
FIGURE 11: Anita Cheng and Ronaldo Kiel
FIGURES 15-17: Andrea Wollensak

REVIEWS

BOOK

ter and Its Evolution

THE PRINTED BENGALI CHARACTER AND ITS EVOLUTION

FIONA G.E. ROSS

Surrey, United Kingdom: Curzon Press, 1999
ISBN 0-7007-1135 X
244 pages, hardbound, illustrated: 110 one color.

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The Printed Bengali Character and its Evolution partially fulfills the need for a literature that addresses the paralyzing gaps in the history of development and use of non-Latin typefaces. Fiona G.E. Ross carefully illustrates each significant development in Bengali type design within its historical context, spanning two centuries. She assembles material from reports, minutes of meetings held by missionaries, journals, biographies, newspaper articles and other relevant literature to narrate a story so novel that it is difficult to put the book down. Ross writes, "This study and evaluation of Bengali type designs and typesetting techniques is intended to be not only informative to the indologist and printing historian, but also to be of practical value to the designer and manufacturer of Bengali and other non-Latin types. Apart from filling one of the many gaps in non-Latin type history, this study should stimulate new lines of approach to non-Latin type design and composition. It is based on the premise that non-Latin typography can, and should, be of comparable quality to that of Latin."

Ross focuses on the complexities and technological requirements of producing printed Bengali, rather than the history of Bengali printing. She begins her story with Charles Wilkins, the "Caxton of Bengal," (though she argues William Carey is the rightful candidate for the title) and designer of the first Bengali font (1778), and ends with her own involvement in the design and implementation of new digital fonts (1978) at the Department of Typographic Research and Development of Linotype-Paul Limited (now Linotype-Hell Limited). She identifies the influences behind the aesthetics of Bengali typefaces, and acknowledges the "constraints imposed by technical limitations, typographic styles and linguistic ignorance and misinformation."

This book consists of three parts. The first part, Development of Moveable [Bengali] Metal Types, is the most extensive. On one hand, she illustrates Wilkins' fantastic achievement of cutting, casting and printing Bengali typefaces – single-handedly – for Grammar in one year, and on the other hand, she systematically represents controversial doubts cast by Caslon and Shepherd on the credits enjoyed by Wilkins. Accompanying figures and diagrams explain Wilkins' methodologies and his development of four typefaces – as she calls them – CW1, CW2, CW3 and CW4. The establishment of a legacy of his initial typographic venture in the Bengali script is beautifully illustrated.

Ross reveals the influence of Wilkins' CW1 design and composition techniques on the subsequent type fonts CP1 of The Chronicle Press set up by Daniel Stuart and Joseph Cooper; and CW3 on a typeface allegedly designed by John Miller. She attributes the authorship of CP1 to Anthony de Souza rather than Aaron Upjohn – which may be a debatable issue.

The largest contribution to the development of Bengali vernacular typography by the nineteenth-century European missionaries is discussed in the chapter 3. This chapter chronicles events leading to the establishment of the Serampore Mission Press and the design of the first Serampore Bengali font – SB1 – under the leadership of William Carey. Ross gives a detailed description of the role played by a local punch cutter, Pañcânana Karmakâra, who worked for Wilkins, Stuart and Cooper at the Chronicle Press,

and, later (along with Manohara his son-in-law and eventual successor) for Carey in the establishment of a typefoundry at Serampore Mission. She demonstrates how Europeans like Wilkins and Carey received most of the credit for translating, composing, casting and printing, though they relied on local assistants not only for Bengali scripts but for other non-Latin scripts such as Arabic, Persian, Nagaree (Devanagari), Talinga, Sikh, Mahratta, Chinese, Orriya, Burman, Carnata and Keshemena.

The design of the second Serampore Bengali type face – SB2 – was begun by an extremely dexterous punch cutter, John Lawson, but completed by native artists. SB2 was "perhaps the most important product to emerge from the Mission's typefoundry" due to its reduced type size of all non-Latin Serampore fonts. SB2 displayed a harmony in the design of its letterforms and maintained a clear and legible imprint, reducing the cost of paper and printing.

The number of typefoundries on the Indian subcontinent increased in the beginning of nineteenth century. "The missionaries thus continued their practice of producing new type designs which effectively improved the standards of Bengali typography. Their reluctance to be satisfied with only one font for each non-Latin script is to their credit," Ross explains. Her analysis of some of the later Serampore Bengali designs (SB3, SB3R, SB4) is well presented.

As a result of a controversy at Serampore Missionary, John Lawson and others founded the Calcutta Baptist Mission Society and ultimately their own press, where significant work continued in the development of Bengali typography. Ross beautifully illustrates the production of Bengali types BM I, BM II, BM III and BM IV under the leadership of Lawson. These faces display a transition from penned forms to constructed letterforms, and have subtle similarities to Roman and italic styles. Ross leaves no stone unturned, it seems, to reveal the significant roles played by various missionaries and local talent in the development of Bengali typography. Henry Townsend, the first printer at Bishop's College Press, observed that the non-Latin fonts brought from England were incomplete and at times inappropriate "to answer for every species of work." Ross feels that "the need, peculiar to non-Latin fonts, to be able to generate new letterforms is equally pertinent today."

The difficulties encountered by pioneers in typefounding several hundred punches to complete a vernacular font is the central thesis of Ross's book. In describing William Bolt's failure in satisfying legibility to Bengali type, she writes, "The ability to perceive the unsuitability of certain designs for type manufacture is essential to the successful creation of a typeface." In reference to an illustration she adds: "It reveals Bolt's poor understanding of the basic Bengali syllabary and an inability to differentiate between

cursive and decorative styles of Bengali manuscript." Joseph Jackson, a reputed type-founder, who displayed his ability to capture in metal the fineness of calligraphic strokes for a Devanagari font designed by William Kirkpatrick, reproduced Bengali type models given him by Bolt. Ross quotes Talbot Baines Reed, "Bolt's failure in this particular reflects no discredit on Jackson."

Subsequently, Ross discusses the commercialization of non-Latin typefounding in England, Europe and the Indian subcontinent. Vincent Figgins (a one-time apprentice of Jackson), receptive to new ideas and sensitive to subtleties in non-Latin fonts, produced very inventive designs, including VF1. Ross illustrates this beautiful font with a double-spread broadsheet, Pica Bengali, that lists 370 sorts. VF1 was adopted by Oxford University Press. Richard Watts' contribution of types in sixty-seven non-Latin fonts, including RW1, is discussed at length. Ross's research on the emergence of commercial non-Latin font manufacturing in England is fascinating.

Ross introduces the transformation of typefounding and printing in Europe and United States and its influences on the development of non-Latin type in part 2. The Pentographic punch-cutting and Linotype machine invented by Ottomar Mergenthaler revolutionized the printing of Latin alphabets. However, prevailing hand composition systems and features of non-Latin scripts were inappropriate for linecaster of Linotype Machine. Simplification of compound letters in Bengali script became the prime focus at the Linotype and Machinery Limited and Mergenthaler Linotype Company offices in United States as well as in England. At the opposite ends of the world (New York and Calcutta), personalities involved in production of the first Bengali Linotype experienced frustrating interaction on formal and technical issues of compound letters. The Monotype composing machine invented by the American Tolbert Lanston overcame the deficiencies of linecaster in the setting of non-Latin scripts, including Bengali. Ross carefully explains the pros and cons of the Linotype and Monotype keyboard layout systems in view of Bengali script.

Part 3 of the book is devoted to the photocomposition of Bengali script. This part focuses on Ross's own involvement in the

design of Bengali fonts. Her research into the evolution of typeforms played a critical role in formulating a design concept of the fonts (202 Linotype Bengali Light and Bold) developed for Mergenthaler's Linotron 202 machine that was introduced in 1978. Photocomposition eliminated limitations imposed by hot metal composition and offered opportunities "to appreciate the legacy of the past and to reinterpret letterforms for the future within the limitations of the new technology."

In concluding her book, Ross generates interest among technocrats and designers alike in a new methodology for the typographic development of vernacular typeforms, considering high resolution digital composition. This methodology raises the following questions:

What letterforms are required?
How much space/codes/memory is available for character storage?
What are the design parameters?
How are all the letterforms to be constructed?
How will they be accessed? (Is new software required?)
What typefaces exist?
What is the typographic tradition?
What research material is available?
What function is the typeface to serve?
What equipment will be used for its composition?
What design style is appropriate?
How will it be printed?
When is it needed?

Ross provides a ready-made blueprint for any enthusiastic non-Latin type designer and typographer to begin fresh works as Wilkins, Carey, Jackson and Figgins did in their own times. This book is a must read for anyone interested in typography and visible language – Latin or otherwise. However, it may be a total disappointment for those who look for a glossy publication soaked in trendy illegible typography.

Reviewed by Mookesh Patel, Associate Professor of graphic design, Arizona State University. An accomplished exhibiton designer, his recent work includes a major traveling exhibition about India, "My Land, My People," produced by the National Institute of Design, India. He has been a visiting faculty member at RISD since 1988.

THE DOMAIN OF IMAGES

JAMES ELKINS

Ithaca, New York: Cornell University Press, 1999
ISBN 0-8014-3559-5
282 pages, illustrated one color, cloth, $45.00

Art historians take note, if you are able to suspend judgment long enough to entertain James Elkins' thesis, your scholarly world will expand and your presumptions of order, hierarchy and intention will be called into question. *The Domain of Images* questions without apology and in clear terms the practice of art history. In the preface, the author notes that fine art is a tiny minority of all images produced in our "pictophagic" age. The images excluded, which of course are the vast, diverse majority of images we view and use, are ignored because: they lack historical significance or expressive power; they make technical understanding demands on the viewer; and they lack visual theories or critical apparatus that might be compatible with "art" considerations. Art, as a commodity characterized by high economic value, by the establishment of the personal status of its owner and as a much sought after rarefied experience, is supported and sustained by traditional art historical practices. Elkins challenges these notions and works through a thesis that opens the possibility of equal treatment for images, a kind of extracanonical analysis, borrowing from art historical practice, but tangential to fine visual art itself. Another art historian, Barbara Stafford, who is actively challenging the standard interpretive matrices by comparing and contrasting enlightenment science images (art) with contemporary digital visualizing developments (*Visual Analogy*, MIT Press, 1999 and *Good Looking*, MIT Press, 1996) might find Elkins to be a kindred spirit. Likewise the Newberry Library in Chicago with its collection of commonplace printed ephemera and Americana, in addition to its rare books, might also applaud the more inclusive strategy of this book.

As for readers of *Visible Language*, some of you may be interested in this book because you are design historians or teachers

of design history and have unfortunately inherited an art historical method that fails to serve the needs of design (see the *Visible Language* special series, 28.3, 28.4 and 29.1, New Perspectives: Critical Histories of Graphic Design). And some, like me, have been pondering for a long time the division between visible and visual language, wondering whether this duality is substantial or just an artifact of the past. These considerations are an essential part of shaping this journal by drawing lines to include or exclude what is published in this venue. While the journal began as *The Journal of Typographic Research* in 1967, that title was too limiting and the founder and editor, Merald Wrolstad, changed the title in 1971 to the more inclusive *Visible Language*. But just how broad is the purview of this journal? It stops short of publishing articles about photographs and images containing no words. But in Elkins terms this leaves the field of interest quite open.

Elkins develops a thesis in which simple dichotomies are abandoned for a more fluid continuum on which to position communications. And he is willing to entertain communication broadly from digital star maps to Siberian Yukaghir picture-writing to Guiness beer advertising. His categories seem strange: allographs (all manipulation of a letterform that leaves its identity intact, such as calligraphy, typography, paleography and layout); semasiographs (a sign that does not designate a sound, but denotes a meaningful element, pictographic writing, such as Egyptain hieroglyphics); pseudowriting (a set of signs having the appearance of writing, but lacking systematic extension and meaning, such as craftsman or potter's marks); subgraphemics (the study of images whose signs are disjoint, to use one of Nelson Goodman's primary descriptors, but lack format or syntactic order, such as Aboriginal paintings); hypographemics (the study of images comprised of nondisjoint signs, like apparently multiple signs as in some petroglyphs or modern paintings); emblemata (any picture accompanied by a text – for example illustration together with its caption); and schemata (images with pictures, writing and notation, usually based on reference lines and other geometric configurations, such as family trees and maps). Don't let the strange designations put you off, this is an approach worth time and consideration. Like the recent book *Philosophy in the Flesh* (George Lakoff and Mark Johnson, Basic Books, 1999), which seeks to unify the four-hundred-year-old mind-body split in western philosophy, this book seeks to unify our categories for visual communication. This is not an author interested solely in classificatory reform for its own sake; he is committed to a broader understanding of the role of the reader/viewer in communication. The pleasure and enjoyment of visual communication, the possibility of plain talk, the mystery and transcendence surrounding open-ended aesthetic experience – all are subjects for Elkins' investigation.

Throughout the book, Elkins avoids using the word "picture." He explains: "Pictures are those images taken to be constituted by the in-built vacillation, contradiction, paradox, or uncertainty of 'saying' and 'showing.' Something in them is linguistic, propositional, systematic, or otherwise semiotic. ... Almost anything can be taken as a picture – a graph, a chart, a painting – and it might or might not resemble the world. But once it is so taken, it becomes the subject of conflicting interpretations, as viewers try to decide between seeing and interpreting."(81)

The first section of the book develops an argument against the privileging of text and against word-image duality. Two philosophers, Ludwig Wittgenstein and Nelson Goodman, provide the technical considerations with which the author chooses to think. Elkins previously published "Between Picture and Proposition: Torturing Paintings in Wittgenstein's *Tractatus*" (*Visible Language*, 30.1). Regarding his philosophical choice, Elkins says: "The two most important, rigorous, and self-consistent models of pictures at work in twentieth-century writing – Wittgenstein's and Goodman's – have guided my comments."(240)

Drawing heavily from Wittgenstein's *Tractatus Logico-Philosophicus*, the author agrees with the philosopher that it is not necessary to distinguish between pictures, propositions or sentences in a logical sense. Picture theory proposes a propositional stance for pictures and this is important and provocative for Elkins.

Among Nelson Goodman's writings, *Languages of Art* provides important insight for this book and Goodman's analysis of notation systems in particular set the stage for Elkins' "schemata." Goodman's theory of notation is formal-logical with five criteria. Elkins suggests we: "Imagine a very sloppily drawn circle, dashed off so that the beginning of the arc does not connect with the end. In Zen, such a calligraphic circle is an *enso*, a sign denoting 'simplicity with profundity, emptiness with fullness, the visible and the invisible,' although in Zen fashion it can also represent the moon and a rice cake. To Goodman, we understand the mark by assigning it to a character. ...we interpret it by assigning it to

'denotata' such as simplicity, profundity, or rice cakes. Judging the relation between characters and their referents is the domain of semantics. Many different kinds of art obey namable rules of syntax and semantics, but only a few are sufficiently strict to qualify as notation." (69) Here the author takes issue with Goodman, because after defining art as a case of dense schemes, he fails to show how it operates. Elkins detects in Goodman an ambivalence – a desire for pictures to make sense in a notational sense – yet a suspicion that pictures might never make sense.

The second part of the book establishes the detail for Elkins' continuum of text and picture. Here he names, classifies, describes verbally and visually the various markers that indicate the shifts and transformation in communication vehicles.

In *The Domain of Images* a complex argument is clearly written and footnoted for further investigation. The author has broad knowledge of communication history, whether in the domain of science or art or the history of writing. While the exposition is scholarly, it is written in a clear and engaging manner. A glossary helps pin down the odd terms or carefully determines the author's special meaning for more common ones. As an example of the former, one finds "gramma" – a general term for image, stressing the affinity between writing, drawing and notation. As an example of the latter, one finds "image" – a general nondescript term for patterns on surfaces, taken in by the eye (see gramma, graphism, visual artifact).

While the book is well produced (carefully edited, printed and materially realized), it is not well designed. This is unfortunate as the book probably contains all aspects of Elkins word-image continuum. Even without taking aspects of the book to be samples of the continuum, common pleasure in reading (here I include viewing and thinking under reading) is made difficult. In essence, the book design privileges the text and the scholarly apparatus, as footnotes are in easy finding and reading distance from their mention. The pictures (and here the author wants the reader to do more than just glance at an example, because he details in writing the significance of aspects of the picture) are sometimes found pages from their written discussion. This requires the interested reader to stop, find the picture and flip back and forth. The pictures are interesting, provocative and carefully selected to make particular points by the author – it is unfortunate that the book was not given more breathing space to accommodate a better picture-text relationship. But that is the economics of scholarly publishing with the high first cost of production and the constrained audience. The truth is I would rather have the book as is than not at all. In a curious way, the very design of the book argues against one of the author's main points – the privileging of the text – as it does exactly that. The conventional (and economic) design works against thinking about text-picture as a continuum.

One last criticism deserves mention – the visual examples themselves. By way of tempering the comment to follow, let me state that the visual examples are carefully chosen and go well beyond the usual confines of art. Half of the images are old (date from the nineteenth-century and before) positioning the argument in a rather dusty past and in its historical gesture, trivilizes our contemporary need for better understanding of communication with words, pictures, diagrams, equations, scores, etc. in singular and hybrid uses. I would appreciate a more focused set of examples, still from science, design, advertising and art, but confined to the twentieth-century or perhaps even to the last half of the century. This would be much work, as the markers for examples are not all that clear and the amount of potential material is vast, however this would establish the vitality of the argument and position it in a realm of more accessible visual generation and use. Perhaps the author will consider this exercise an extension and demonstration of the thesis developed in this book. Too often developing the thesis is exhausting and the demonstration is less than it could be. Here is an opportunity to use "the domain of images" itself to reveal its structure.

This book is provocative and worth your consideration.

Reviewed by Sharon Poggenpohl, editor of this journal and teacher of communication design in the Institute of Design's graduate and doctoral programs.

ALIRE AND DOC(K)S

MOTS-VOIR, AKENATON DOC(K)S and the authors

October 1997
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email: akenaton_docks sitec.fr

A year after the publication of the *Visible Language* issue dedicated to New Media Poetry (30.2), *ALIRE*, a French magazine on CD-ROM, and *DOC(K)S*, a paper publication, got together to deliver a special joint issue on Poetry and Computer. This two year project is another step toward the recognition of the contribution of visual and sonorous poetry to computer literature, highlighting the inevitable convergence of visual and concrete poetry toward computer art. The range of work proposed on the CD-ROM is far from exhaustive due to technical limitations, although every work submitted has been published without censorship. The book mainly addresses different theoretical issues in the form of articles submitted either by international artists or scholars. Most of them are in French, others are in English, Spanish, German and Italian. The CD-ROM features literary, visual and sound works. (Half of the work shown on the CD-ROM can only be seen on a PC platform and the other half on a Mac. A Mac G3 with Virtual PC was used allowing one to switch from one presentation format to another while reading.) Some artists used the computer as a tool to achieve poems that are presented to the reader in a fixed and final format, whereas others used the potential offered by new technologies to requestion the traditional structure of communication in literature and to establish a new relation between the author, the poem and the reader.

A first comment that comes to mind about this publication is the lack of presentation structure. You are left on your own in exploring a land that seems to be initially wild. But you soon understand that the nature of the work has such a large scope that it is virtually impossible to establish an order for presentation. In addition, the main characteristic of the New Media Poetry is reflected in the sense that it challenges the traditional way authors communicate with readers. The book is no exception. This review highlights the relevant points in a chronological manner, sufficient to give an overview of all the doors that new technology opens to literature.

Concrete poetry (that which communicates its own structure) is at the core of computer literature. The first known experiences of poetry created with the computer go back to 1959 when Theo Lutz, an engineer, created programs that generated poems based

on traditional schemes. But it wasn't until the beginning of the sixties that real poets like Brion Gysin, Emmett Williams, Edwin Morgan and Raymond Queneau (who co-founded the OULIPO in France) integrated the computer into their creative process. For instance, the permutation technique derived from concrete poetry was greatly enhanced by computing capabilities. A good example is the famous Raymond Queneau's "Cent Mille Milliards de Poémes" (Hundred thousand billion poems) created with the help of mathematician François Le Lyonais. Queneau wrote ten sonnets of fourteen verses each in which the reader could replace every verse by the corresponding one from any of the nine other sonnets. He then could possibly create 1014 different poems. A.L.A.M.O., the second important group that integrated the computer into literature, was made up of writers and computer scientists. Some of their work on automatically generated text was shown at Les Immatèriaux at Pompidou Center in 1985.

In one of the articles presented in the book, Philippe Bootz brought forward an interesting subtle difference between the traditional way we look at texts as object that could be exported on different media: book, video, diskette and the textual processing that originates from automatically generated texts. This new function (text generator) is positioned between the writing and the reading functions and creates a distance between the author and the reader. There is no way the reader can know the real work of the author nor he can proclaim *having read* the text. Rather, the reader is in the presence of *textual objects* that do not all show up at the same place and at the same time in the communication process described by the model. Even their collection doesn't reflect the *text object* as it is understood in a traditional way. This distance brings a certain degree of autonomy from a textual process perspective. Bootz draws upon this strange paradox by saying that this autonomy is one reason *why a written text is not meant to be read*. Another characteristic is the interaction between the reader and the work, where the author still has some control, through data and software, over the autonomy of the textual process and can guide the reader into this process to a certain extent.

Jean-Pierre Balpe brings up a pertinent question – whether or not someone can claim to be the author of the computer-generated texts for which he wrote algorithms. He says no one can pretend this in a traditional sense of the word "author" (who gives subjectivity to a text). But the "meta-author" can consider himself an author of text that will turn the reader into a "producer of meaning." Thus, one is able to fully develop all the semantic production capabilities that one possesses unconsciously. What interests the meta-author is to see the action produced by program parameter variations on the reader's response.

Guillaume Loizillon explains how the work of programming itself, in the context of programing for poetry, is part of the creation process. He talks about the existence of *algorithmic imagination* that cannot be mistaken with the performance of the machine itself. "If computer art exists, it is certainly programming. But the latest will materialize through a result where it becomes transparent and invisible as such." That comment points to the reality of all artistic areas that cannot be defined by the sum of their production techniques.

Another category of poems that evolved at the same time as automatically generated text, are the ones that make use of sound and/or visuality. The advent of multimedia in the early nineties helped to reinforce that field of experimentation. Tibor Papp, in his article treating the possibilities offered by the Internet, describes four categories of literature that deal closely or not with computers:

- *work that is written, visual or is created with sound, and that is archived on a computer and/or is meant to be viewed in a static mode. Examples: essays or "classical" poetry available on the Net.*
- *hypertexts or text generated by computers.*
- *audio-visual work generated by computers. A distinction must be made between the work that is generated by a computer, but is delivered in a linear mode where the computer has no role to play, and the work where its delivery is closely related to its creation and they both require a computer.*
- *computer-aided performances.*

Papp stresses the fact that static work doesn't have much meaning on the internet. But the work that cannot be dissociated from the computer is in perfect harmony with the medium. Dynamic work is constantly renewed along with technology and therefore does not require updates because it lets the reader read or see the result of the moment.

The interaction of the reader/viewer with the work is even more crucial in Holopoems (poems conceived, made and displayed holographically). As Eduardo Kac explains: "such a poem is organized non-linearly in an immaterial three-dimensional space and that even as the reader or viewer observes it, it changes and gives rise to new meanings." The notion of adapting the creative process to the real potential of the medium is

potent in his article. "A holopoem is not a poem composed in lines of verse and made into a hologram, nor is it a concrete or visual poem adapted to holography. The sequential structure of a line of verse corresponds to linear thinking, whereas the simultaneous structure of a concrete or visual poem corresponds to ideographic thinking." He adds: "But holopoems are not three but quadri-dimensional because they integrate dynamically the three dimensions of space with the added dimension of time. He draws a parallel with fractal geometry that tells us that there are dimensions in between those numbered with whole numbers. This passage from the verbal to the visual and vice-versa creates a new dimension. The poetic experience is enriched when the viewer sees a work that continually oscillates between text and image."

The most important point this book brings forward, is how technology forces artists, from any field, to totally reconsider every aspect of their work. Whenever a new tool is available, it is first used as a natural extension of what is being done at that particular moment. Just think of the invention of photography and how long it took before we could see work that was using the full potential of this medium. It is the same with the web. Even today, many sites are treated as a mere replica of traditional paper publications. Even our technical vocabulary is tainted with archaism (the word "web-page" is a good example). The book and many of the works presented on the CD show how far many artists have evolved their creative process in terms of technology. Their attitude was: "How can I adapt my work to the full potential of technology" as opposed to "How can I use technology in my work." It is only with this attitude that things change and evolve. Eric Vos even requestioned the sacrosanct notion we all have of traditional communication process. He wrote in *Visible Language* 30.2: "In new media poetry, communication becomes negotiation. It is not the text that fulfills its communicative function or fails to do so. Rather, the merging activities of poet and reader fulfill poetic communication, and in that process a poetic text is created."

Reviewed by Alain Rochon with Sylvie Pouliot, Associate Professors in the Programme de communication graphique, Université Laval, Quebec, Canada.

THE HISTORY OF COUNTING

DENISE SCHMANDT-BESSERAT

MICHAEL HAYS, *Illustrator*

New York: Wm. Morrow & Company, 1999

ISBN 0-688-141188-8

48 pages, cloth, full color illustration, $17.00

It is unusual for an accomplished academic to write a children's book in the area of their expertise. But Denise Schmandt-Besserat has done just that. In plain English she writes a history for children eight years and up. The history is fascinating and accurate – it is the kind of story that a child can remember and to which they can add experience and detail as their understanding of number concepts become more sophisticated.

The author puts number systems into the context of the daily lives of those that used them. Early societies, consisting of hunter-gathers needed only rudimentary number concepts and so they had a few disorganized terms that accounted for small numbers. Body counting, in which different parts of the body represented specific numbers, was also useful for small numbers. Concrete counting, in which the number and the thing counted were inseparable, also dealt with fairly small numbers. Abstract counting, in which the number and the thing counted were separate, allowed for a more universal system to develop that could also handle big numbers. As human societies grew and became more complex in cities with trade and taxation practices, larger number concepts were needed as well as an efficient systematic understanding of these numbers and how to manipulate them.

It is no surprise that the materiality of counting also figures into the story, since the author is an archeologist. Marks on bones and clay tokens evolved into writing on other surfaces. Systems of writing, such as Roman numerals and Arabic numerals, are discussed in some detail. The author stresses the *invention* of number systems, but like the invention of writing, there is no formal record of its appearance and it was invented not once but many times according to need.

The handsome illustrations provide descriptive detail, complementing the text. They are stimulating in their own right and can provide an attentive adult with points of departure for discussion with a child. A glossary of terms at the back of the book is a helpful resource for both adult and child.

Reviewed by Sharon Poggenpohl, editor of this journal.

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