

PINO TROGU – SAN FRANCISCO STATE UNIVERSITY, USA

JACK STAUFFACHER – THE GREENWOOD PRESS, SAN FRANCISCO

JIM FARIS – SKYPE

THE IMAGE OF THE BOOK

WHAT COGNITIVE PSYCHOLOGY TELLS US
ABOUT THE INTERPLAY OF THE VISUAL AND AURAL
WHEN EXPERIENCING A PRINTED BOOK

RESURRECTING THE BOOK – BIRMINGHAM, U.K.

SATURDAY, 16 NOVEMBER 2013

[go to last slide](#)

ABSTRACT




LIBRO II. 207
 orisibi notuoch, come quelle de' parlari vulgari
 lo sono più spesso analoghe, quali contese Celsa-
 re offero ne' suoi libri de analogia, che scrisse
 contro Catone, che si era accento alla parte op-
 porta ne' libri de Ortytibus; e ce ne giunse pur
 la di *Philostratus* di essa voce *otnostyla*, che l'ugga
 lo stesso, che *perissajium*, siccome la *fenola* si
 fa di *fenita* verso *narratio*. E questa è la *Perse-
 minia*, o Interpretazione de' nomi, *p.ete di que-
 sta Logica Poetica*, dalla quale doveva quella di
 di *spitite* incominciare.

COROLLARIJ.
 Ditorno a' Tropi, Mostri, e Trasformazioni
 Poetiche.
 Di questa *Logica Poetica* sono *Corollarij* tut-
 ti i primi Tropi, de' quali, come la più
 luminosa, e perchè più luminosa, più *metaphorica*,
 e *spesio* in tutte le lingue è la *Metaphora*; ch' al-
 lora si più *usata*, quando alle cose *infinite* ella
 dà *senso*, e *passioni*, per la *metaphorica* *logica* *ra-*
zionata, ch' i primi *Peri Aliter* a' capi l'effere
 di *folente* *animata*, fol di tanto *capaci*, di quan-
 to essi *poterano*, cioè di *senso*, *spesio*, e si ne
 fecero le *Favole*; talchè ogni *metaphora* si fatta
 vien ad effere: *accrescitur* *diminuitur*. Quindi
 se ne dà quella *Critica* ditorno al tempo che
 nacquero nelle lingue; che tutte le *metaphorice*
 portate a significare i *lavori delle menti* *ajutate*
sedebon effere de' tempi, ne quali s'erano già
introdusse le *Philosophie*; lo che si dimostra da ciò, ch'
 ch'in ogni lingua le voci, che bisognano alle
arti colte, ed alle *Scienze*, hanno *contadistinte*
 le lor' origini. Questo è degno d'osservazione,
 che in tutte le lingue la maggior parte dell'
epithora ditorno a cose *inanimate* sono fatte
 con *trasporti del corpo animato*, e delle *lor' par-*
te, e degli *humani* *organi*, *che* *umane* *passioni*
 tutto lo che va di seguito a quella *Descriptio*; *che*



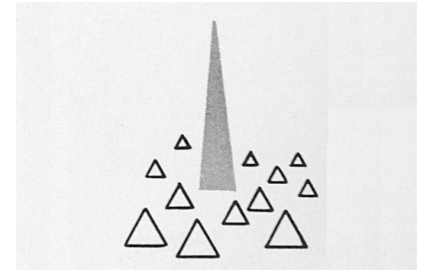
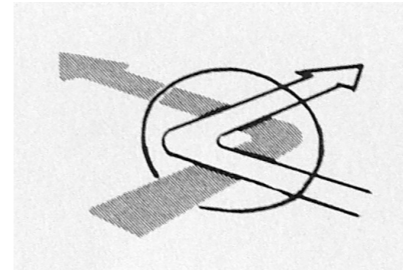
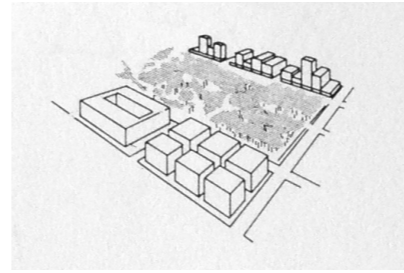
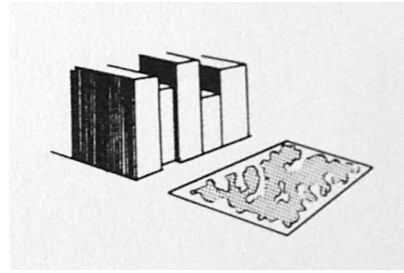
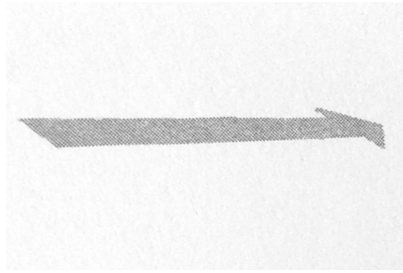
FLORILEGIUM DIVERSORVM
 EPIGRAMMATVM IN
 SEPTVM LIBROS.



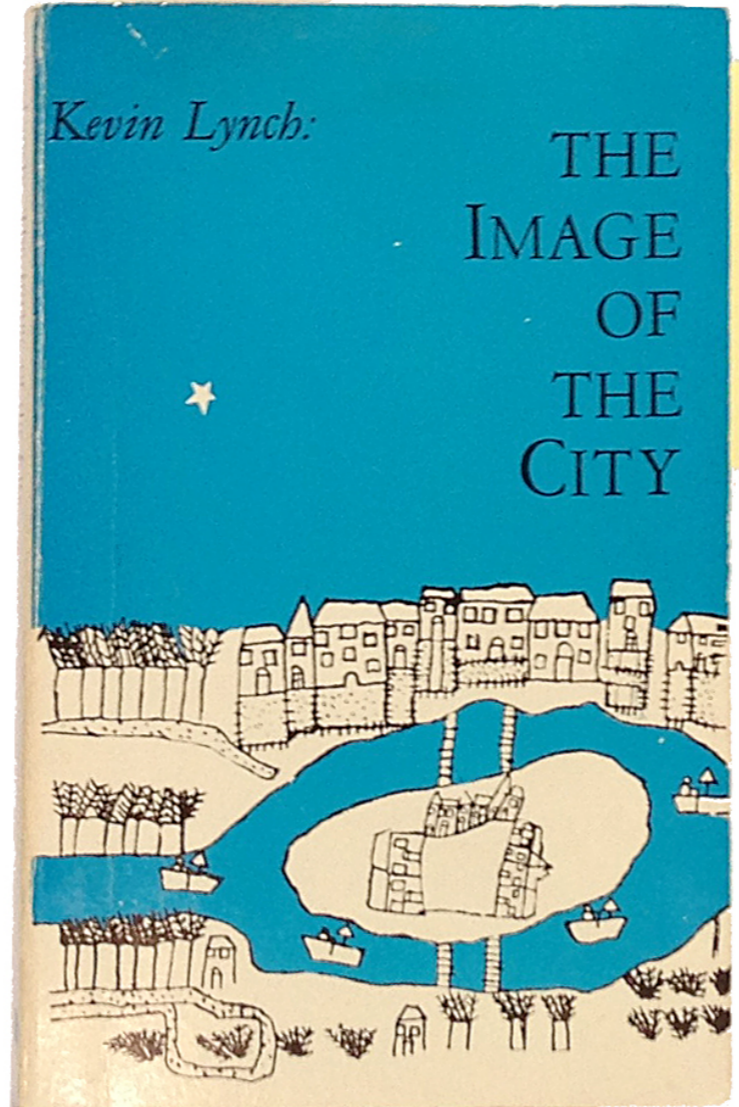
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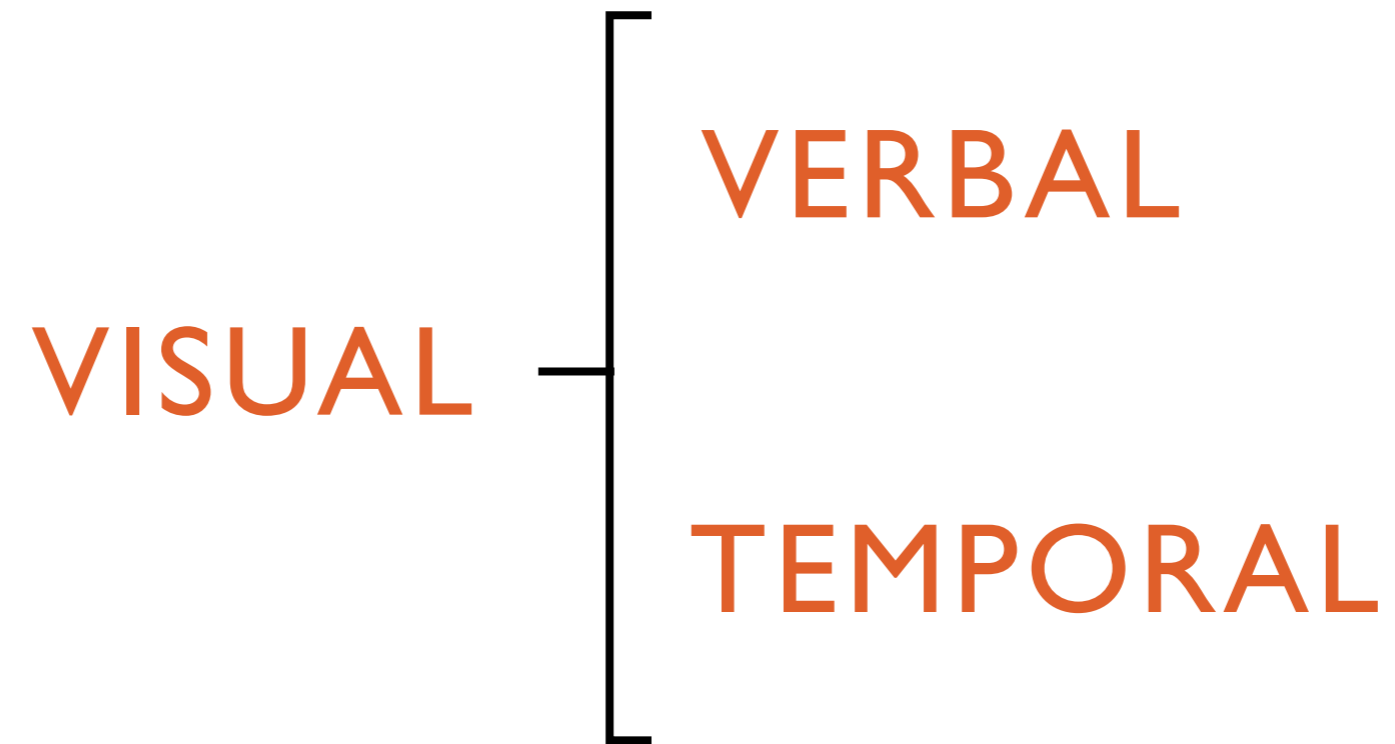
ΑΝΘΟΛΟΓΙΑ ΔΙΑΦΟΡΩΝ ΕΠΙ-
 γραμμάτων, ἀρχαίοις συντεθειμένων σοφῶν, ἐπὶ διαφο-
 ροῖς ὑποθέσεων, ἐρμηνείᾳ ἔχόντων ἐπίδηξιν, καὶ
 πραγμάτων ἢ γενομένων, ἢ ὡς γενομένων ἀφή-
 γησιν. Διαίρεται δ' εἰς ἐπτὰ τμή-
 ματα τὸ βιβλίον· καὶ ταῦτα
 ἕς κεφάλαια κατὰ σοὶ
 χῆρον διεκτί-
 θεται.

J. 82



*the
leg-merly
way -
finding ?*





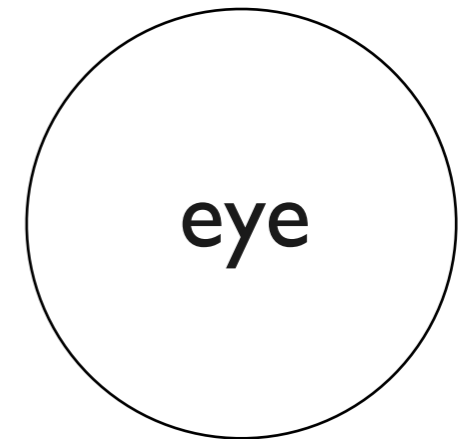
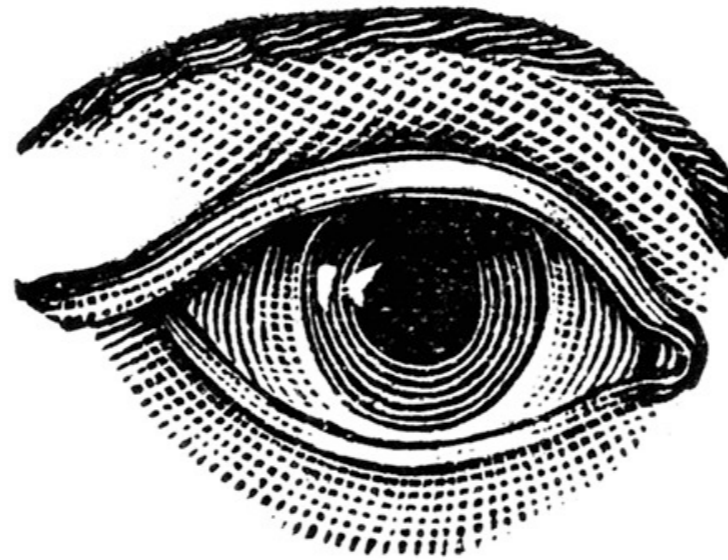


Jack Stauffacher – San Francisco, USA



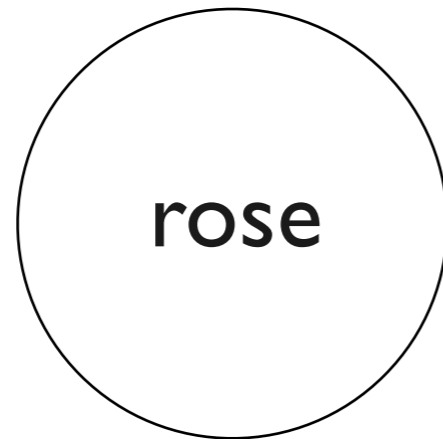
Alan Baddeley – York, UK

“NAMING” AND SUB-VOCALIZATION



(Noizet & Pynte, 1976)

METAPHORS – VIVID IMAGERY



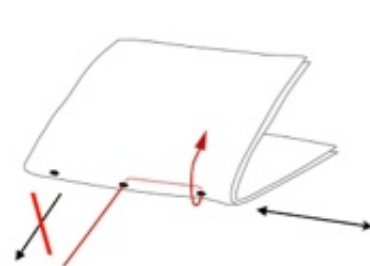
SPATIAL
TEMPORAL
MENTAL MAPS

I. THE MAKING OF BOOKS

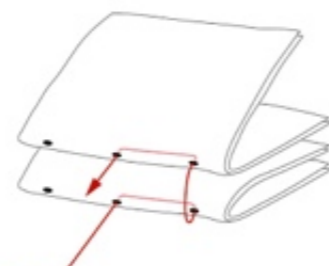
Basic stitching pattern for Smyth-sewn books

Fold paper sheets into a smaller format. For example, one 11x17 sheet folded twice yields 8 pages of format 5.5x8.5. Each folded sheet is called a signature. You need an even number of signatures for this technique. Mark and cut your holes on the spine of the book using a small dovetail saw.

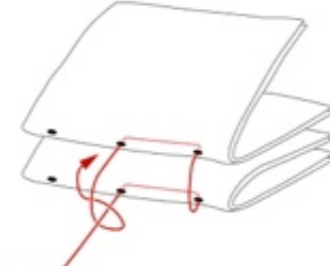
You need an odd number of holes: 3, 5, etc. One hole is in the middle. Measure enough thread equal to the distance between the outside holes times the number of signatures, plus a couple of lengths more. Use bee's wax to smooth the thread. Follow the diagram below, left to right.



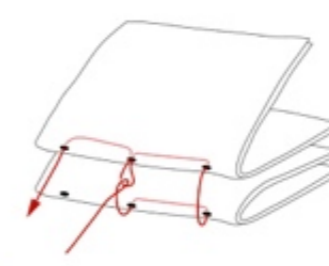
1. Start at the middle hole. Put thread all in but leave about 6 inches out, you will need this end to make knots. Inside, go to the hole on the right and come out again. Pull the thread gently to avoid ripping the paper. When tightening the thread, never pull it towards you. Instead, pull sideways in the direction of the spine, parallel to the fold, as shown by the double-pointed arrow.



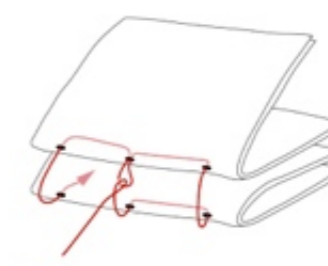
2. Position the second signature on top and go in with the thread into the corresponding hole, immediately above the first. Signatures will be stitched in groups of two. Once inside, move left to the middle hole and come out.



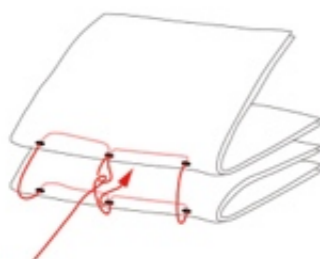
3. Tighten the threads pulling gently sideways. Make a knot in the middle on the outside, using the loose end you left out earlier. Make a knot every time you come out in the middle. Go back inside using the same middle hole.



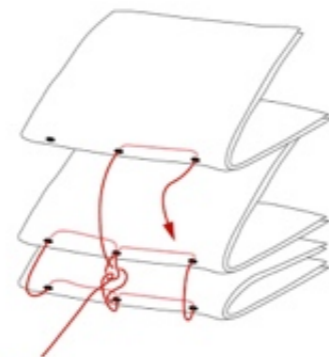
4. Inside, move to the left hole of the top signature and come out. Tighten gently.



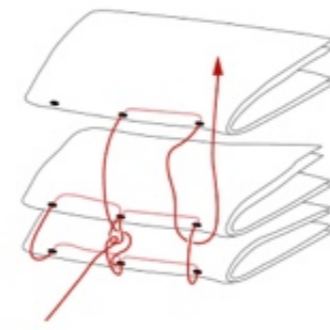
5. Go back inside into the left hole belonging to the bottom signature.



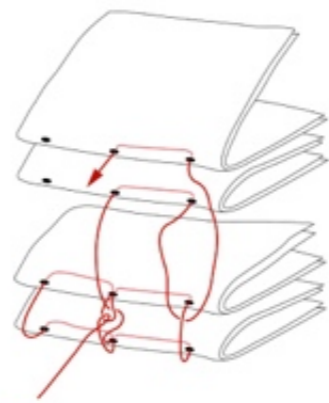
6. Once inside (left) move to middle hole of bottom signature and come out again. Tighten and make another knot. Note: make a simple knot, the drawing shows only that you have to make a knot, not necessarily what type of knot.



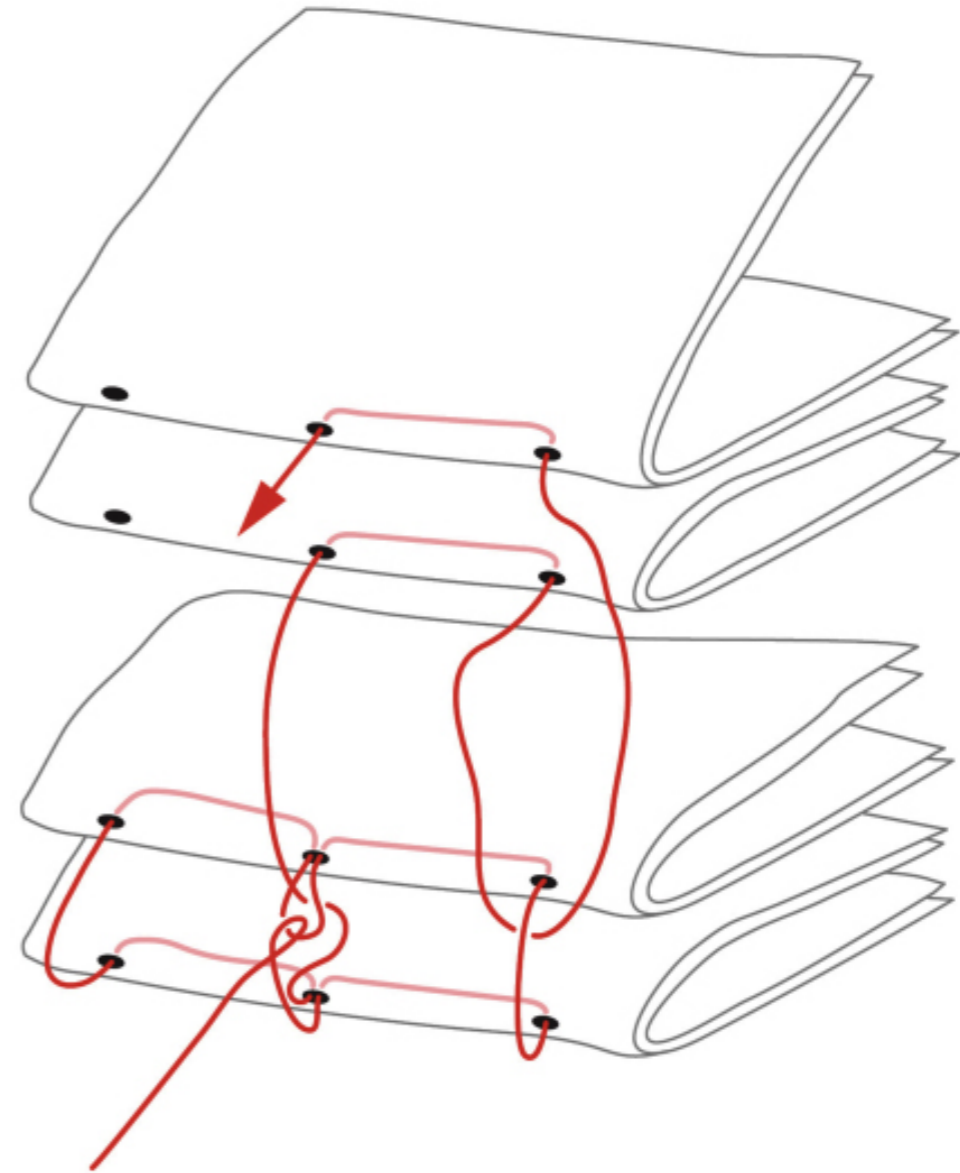
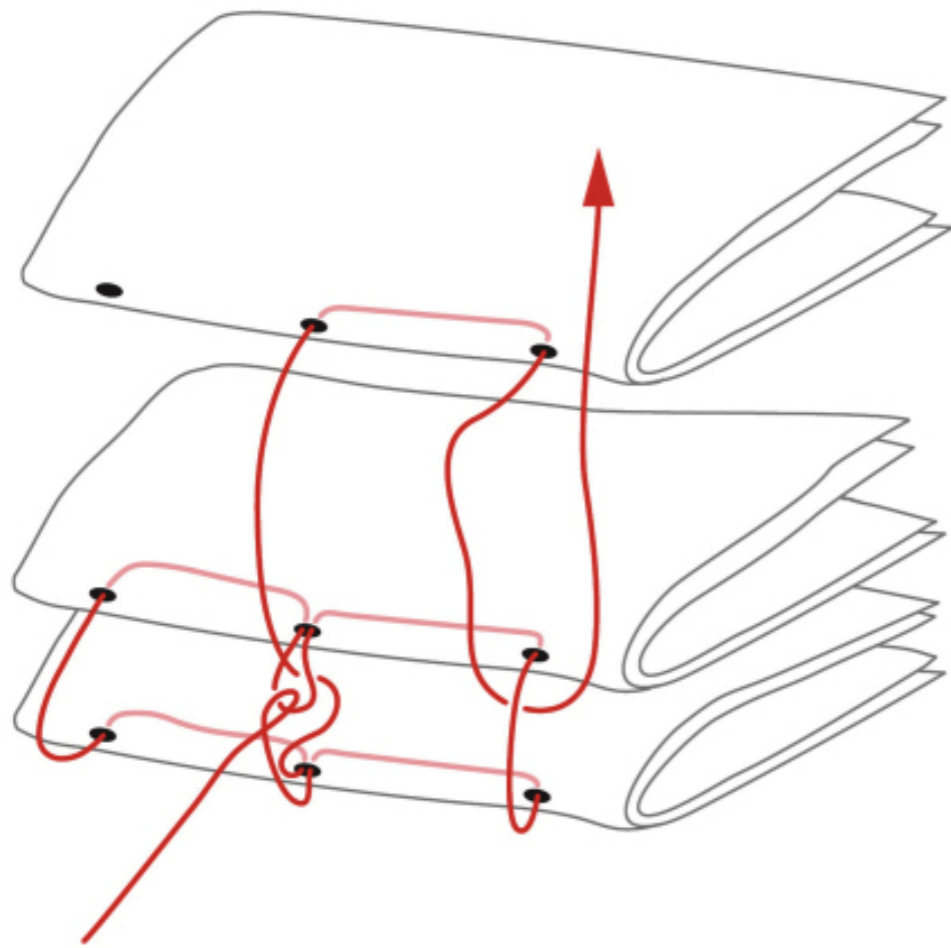
7. Place the third signature on top of the first two. With the needle, go into the middle hole of the top signature. Inside, move to the right hole and come out. Note the next critical step.



8. At this point, you would normally go into the right hole of the fourth signature but... STOP. Instead, go down and loop the thread between the two bottom signatures. You are not going into the signatures, only catching the connecting thread between the two. By doing this, all the signature pairs will be connected together at the end.



9. At every step, hold the signatures down before tightening the thread. Now that you have looped the lower signatures, move into the hole of the fourth signature above. Inside, move to left and into the middle hole and come out again. Tighten and make a knot. Repeat as needed. Remember, when finished, no thread will be visible going across the signatures on the outside, the thread is only visible inside the folds.



DAI 320 Bookbinding Workshop / Day 2: Flat back case bound books.

Pino Trogu – Spring 2013

1. Note: throughout this process, you must NOT open the book for any reason. The completed book should only be opened after allowing it to dry overnight in the book press. After the signatures have been stitched together, attach the front and back end sheets. These are single fold sheets, same size as book when folded, usually slightly heavier than book pages and a different color. Make sure grain is running with the direction of the spine.

2. The end sheets are attached to the book by a strip of glue, about 1/4 inch, near the fold. To apply glue, place end sheet between two straight pieces of paper. Hold the top paper and apply glue evenly with your finger, extending motion over the masking papers. Carefully remove masks and attach end sheets to book.

3. Wait a few minutes for the end sheet glue to dry. Place the book in a book press or under heavy weight, with the spine sticking out 1/8 inch. Apply glue to spine (PVA or Elmers). Work the glue in between the signatures until there are no visible gaps. Work the loose threads into the spine. Let dry 10-15 minutes and apply a second coat. Let dry.

4. Cut a piece of mull (or other thin cotton fabric) big enough to wrap around spine of book and extend about 1 inch on front and back. Height is about 3/4 inch shorter than book. Place on newsprint paper and apply PVA glue with cheap 2" brush. Glue will go through but that's OK.

5. Place book on the edge of the table and apply the mull to the front of the book and the spine. Press mull and spread it evenly. Hold book up with one hand and wrap mull around the back. Slowly press mull evenly onto the book to eliminate air pockets and excess glue. Wait a minute or so, then repeat the process until smooth and almost dry. Leave to dry on edge of table.

6. Do not open the book. Wait for the book to dry, possibly for several hours or overnight. The next step will be to mark the cover end sheet for trimming.

7. Mark the top end sheet with a soft pencil for the top, bottom, and fore edge cuts. This dimensions will be the final page size of your book. Add arrows to make sure you will cut these sides and NOT the spine. Trim the book using the guillotine. **IMPORTANT:** do not use the guillotine unless you have been properly trained in its operation. It's a beautiful but dangerous machine. Please respect it.

8. After trimming, you can add head bands to the top and bottom of the spine. Choose your color to complement or contrast the color of the end sheets or the cover. The decorative part of the head bands should hang over the signature folds. If desired, you can also add a bookmark, a thin satin ribbon attached to either the spine (under the head band) or inside between pages.

9. When the final size of the book is determined, measure and cut the hard backs. Use chip board (thicknesses vary) and find the direction of the grain by bending the board in front of you left to right, turning it and bending it again. When easy to bend, the grain is in the vertical direction. Cut boards so that this direction matches the length of the spine.

10. The boards are cut so that a small edge will extend and protect the pages from wear. The extra edge, also called turn-in, should be between 1/8 and 3/16 of an inch, but it can vary depending on many factors such as the size of book and other aesthetic considerations.

11. For convenience, we will refer to the three dimensions of the book by the three letters x, y, z.

12. On the spine, the board is typically much thinner. You can use bristol board, card stock or other thin board such as cereal box board. For this type of spine, the width of the "lining piece" will be the thickness of the book plus one thickness of the back board that's being used. Today, you often see books where the lining piece is the same thickness as the backs – very rigid – but traditionally the lining piece is thin, soft, and can be rounded to follow the spine.

13. Four pieces are needed: two hard backs, a spacer, and the lining piece. They are all the same height. The width of the backs is the same as the trimmed book. The backs will move to the fore edge by 1/8 or 3/16. The spacer will be used temporarily to place the two backs down in the exact position, then removed and the lining piece will be placed in the remaining gap.

14. Sandwich the book between the two hard backs so that they extend on top edge, fore edge, and bottom edge.

15. Wrap a piece of paper around the spine and mark the distance around and between the edges of the board. This distance (W) plus 1/8 (if using 3/32" thick board) will be the width of your spacer. Add 3/16 instead if you are using 1/16" thick boards.

16. Make sure your boards are cut square and are identical. Use a utility knife and a metal ruler on a cutting surface. Place the boards and the spacer on the bookbinding cloth or paper that you will use. Cloth is about 1 inch wider on all sides. You are ready to glue the boards. Prepare your work flow: 1. Place down several sheets of larger newsprint paper. 2. Prepare a container with PVA glue, thinned with a bit of water, and a cheap 2" brush.

17. Apply glue with brush moving ONLY from the center towards the edges. Hold paper down with one or two fingers. Do not move brush parallel to edges. Extend brush strokes beyond bookbinding cloth/paper. This motion keeps the paper in place. If the paper moves, the glue will go under and mess it up. Move quickly as the glue will start to dry and the paper will want to curl. Keep cool and don't panic if paper moves a bit.

18. Clean your hands and lift the cloth/paper by the top corners. Your partner must now quickly remove the dirty newsprint sheet from underneath. Quickly put cloth on clean sheet, with a motion hugging the edge of the table if necessary to prevent the cloth or paper from curling and rolling.

19. Moving fast, place the first board on the paper, leaving an inch around the corner. Press board down briefly to set it in place. Add the spacer but don't press, add second board and press. All should align at top.

20. Remove spacer and place lining piece in the center gap, moving it quickly to align it and center it. Press firmly.

21. Lift paper and cut the four corners with sharp scissors, leaving a 45 degree cut. Leave about 1/8" material next to the board corners.

22. The glue will have started to dry. Hold down the boards and turn top edge in by grabbing and wrapping one or two sheets of newsprint towards you. Hold the edge of the sheets and press down quickly with the bone folder.

23. Repeat the step with the opposite edge of the paper. Remember to keep everything in the same place, there will be extra glue that gets on the newsprint but it's OK as long as you don't move the covers.

24. Use your thumbnail to tuck down the binding cloth/paper at the corner of the boards, making sure the chip board corners get covered by the fabric.

25. Now fold the right flap using the same technique: grab newsprint, bring over, hold and press down with bone folder.

26. Fold the left flap.

27. Place a couple of sheets of newsprint on top of covers – the picture is meant to show the "hinges" formed between the boards and the lining piece, and around the edges of the boards. The paper protects the cover from becoming shiny from the rubbing of the bone folder. Flip cover and press down as before using the paper as protection. Use the bone folder's side and press back and forth with the palm of your hand to get rid of air bubbles. Press on hinges again.

28. Check the cover to see if it fits the book properly with the correct edges and to make sure that the hinges work properly. Now you are ready for bluing the book itself to the hard backs. Prepare your work surface. Use brush to spread glue on top of the first end sheet, moving from the middle of the spine and out towards the edges, extend your strokes out. **DO NOT** put glue on the spine.

29. Clean your hands. Grab the book, flip it and place it on the right cover. You have 1-2 seconds of time to shift it around before it starts setting. You will have rehearsed this step earlier without glue (dry run) to familiarize yourself with the correct spot you need to aim for – the edge of the spine should be slightly to the right of the lining piece, with part of the hinge slightly visible. Press firmly. **DO NOT** attempt to clean up any extra glue on the edges at this point.

30. Put glue on top of the other end sheet, with a similar outward motion from spine center towards the edges and the corners.

31. Flip cover over the end sheet holding the book firmly. Flip the whole book to adjust the edges if necessary, but only if it is still possible. If not, **DO NOT** attempt to lift the cover, it's too late, it's good enough. Press firmly and **DO NOT** open the book! I repeat: do not open the book now.

32. Place the book in a book press or under stiff, heavy books. Place a sheet of plain paper on top and under the covers, just in case glue sips through. Make sure the weights are properly aligned to provide even pressure. Leave book to dry overnight.

33. The best device to finish the book is a book press, which provides even and strong pressure, especially in the middle. Leave book to dry overnight.

34. The next day, after you take the book out of the press, the pages near the covers and the end pages might have glue that holds them together. **DO NOT** attempt to separate the pages by opening the covers or opening the pages. Instead use a blunt blade such as a tableware knife or letter opener to slowly free the pages one by one.

Afterword
Books come in all shapes, sizes, and styles, but their basic construction has not changed in centuries. It's one of those timeless designs like the wheel, the scissors, the bicycle, the umbrella: try as you might, there just isn't that much improvement that one can make. But it makes a difference if you know how they are put together and if you can make one yourself with your own hands. The next step: to write your own personal book. ☺

P.T. San Francisco, April 13, 2013

San Francisco State University – Department of Design & Industry

Last update: April 14, 2013 Page 1 of 2

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**You did it!
Enjoy your book :-)
Write, read, & draw!**

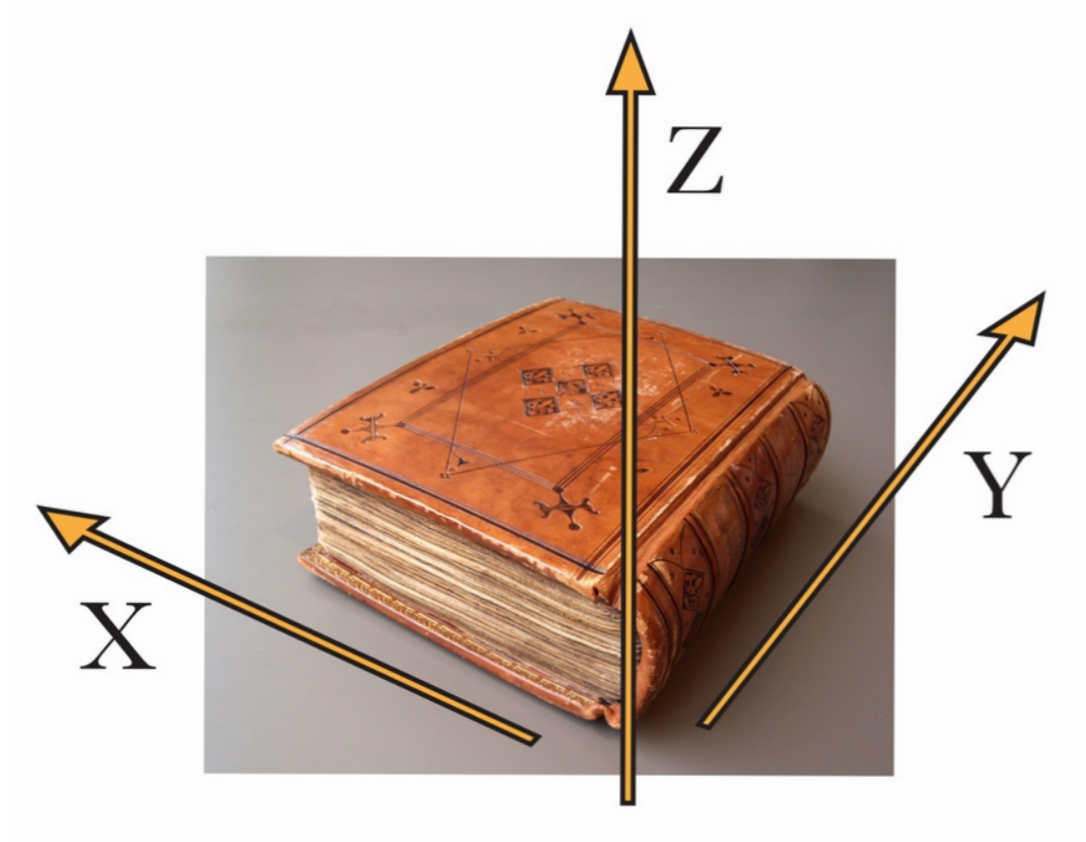
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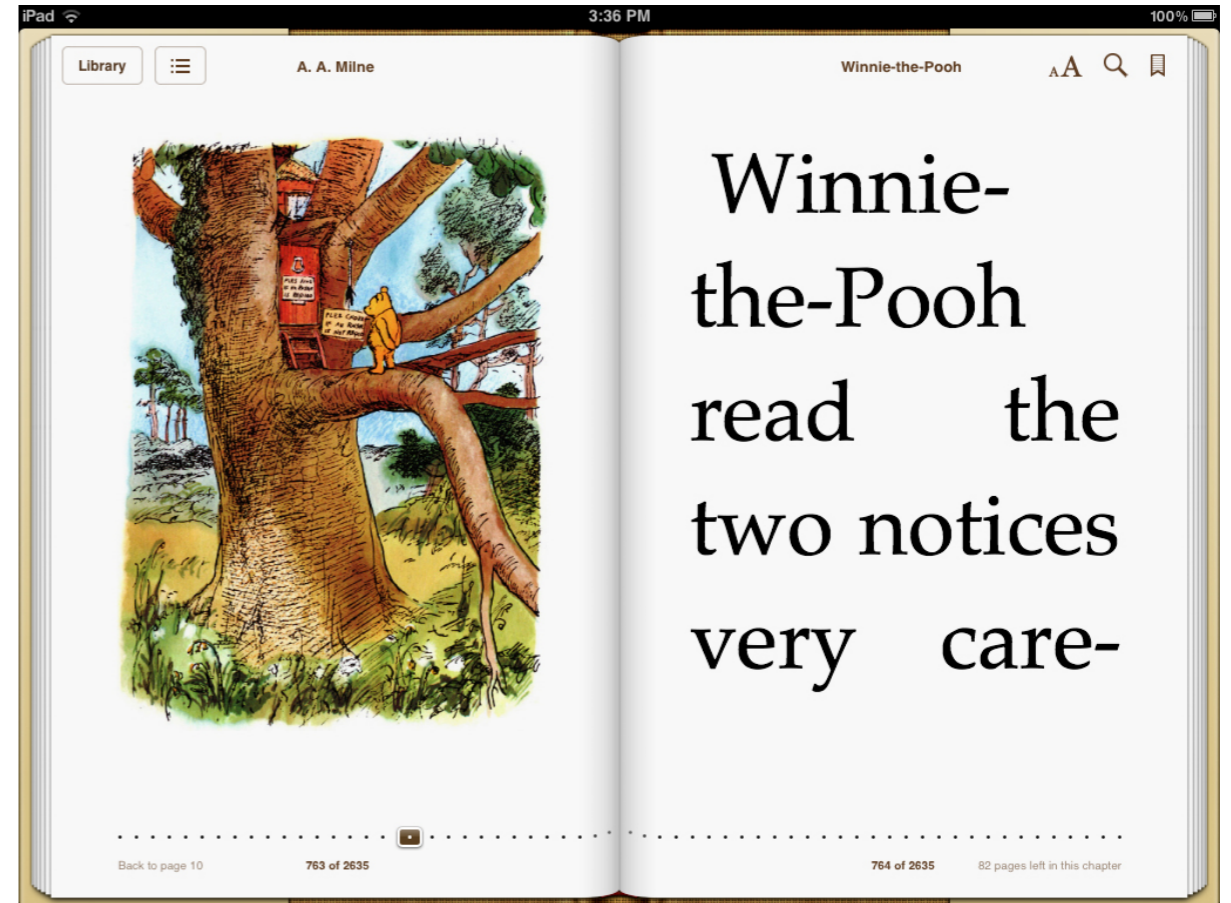
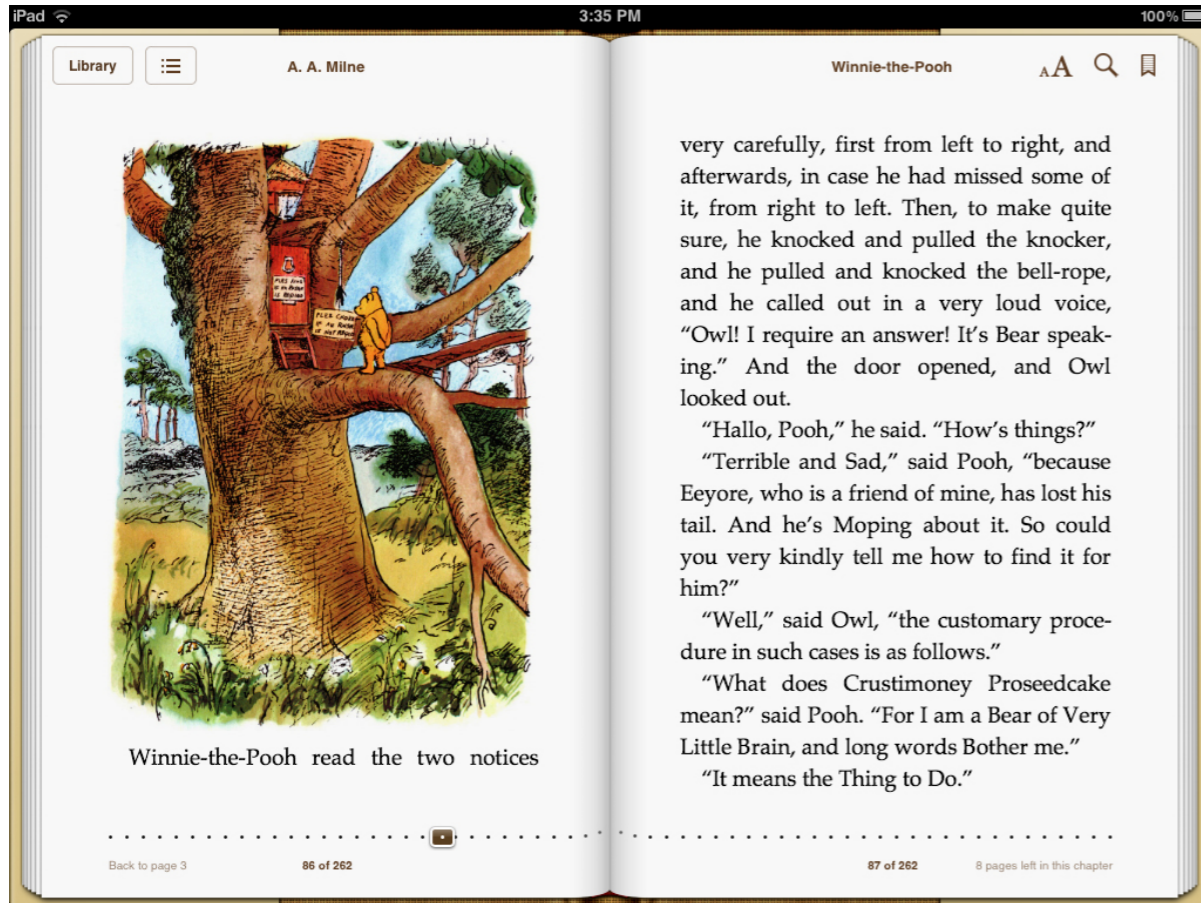
P.T. San Francisco, April 13, 2013

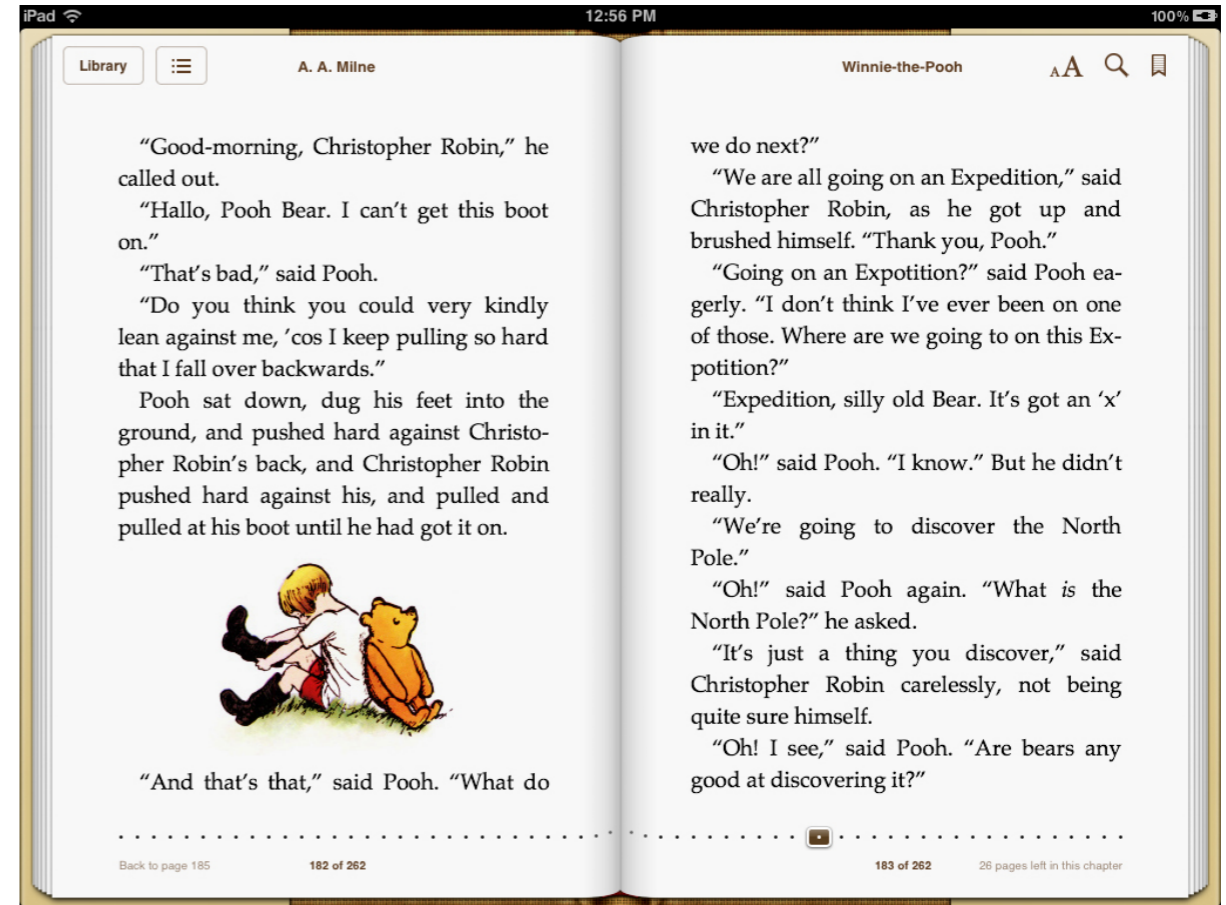
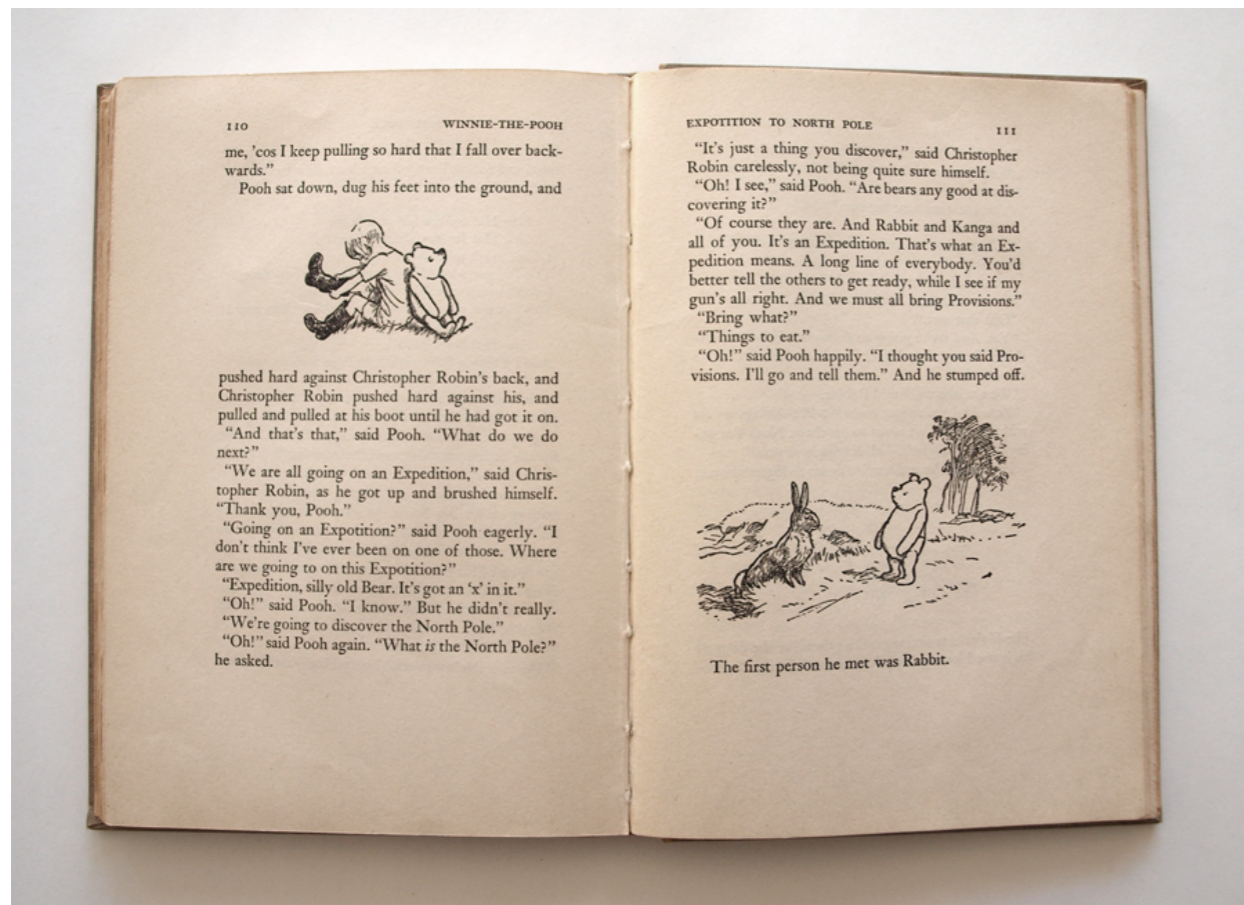
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2. THE THREE SPATIAL DIMENSIONS OF PRINTED BOOKS







“Look at me when I talk to you”

(Clifford Nass, Stanford University, 2012)

“Alone together”

(Sherry Turkle, M.I.T., 2011)

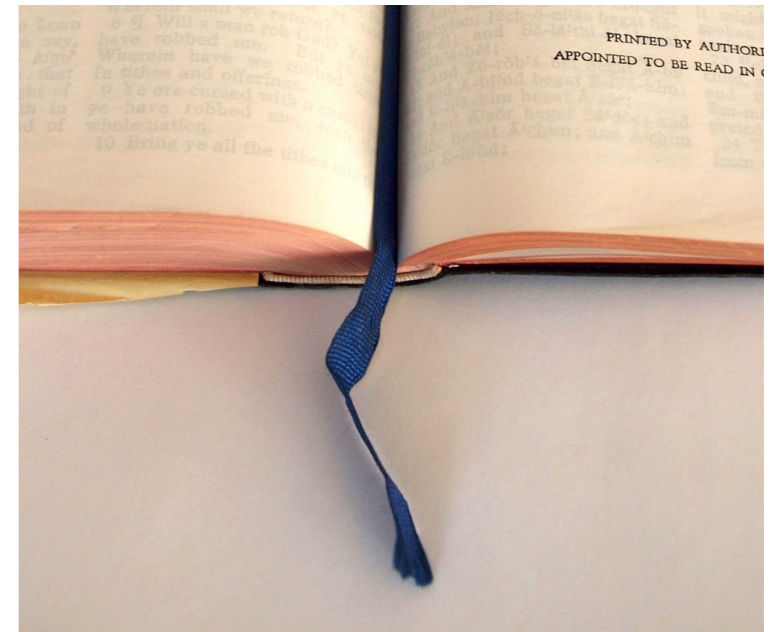
3. THE PRINTED BOOK AND ITS FIXED, LINEAR CHARACTER



RESURRECTING THE BOOK – BIRMINGHAM, UK 2013



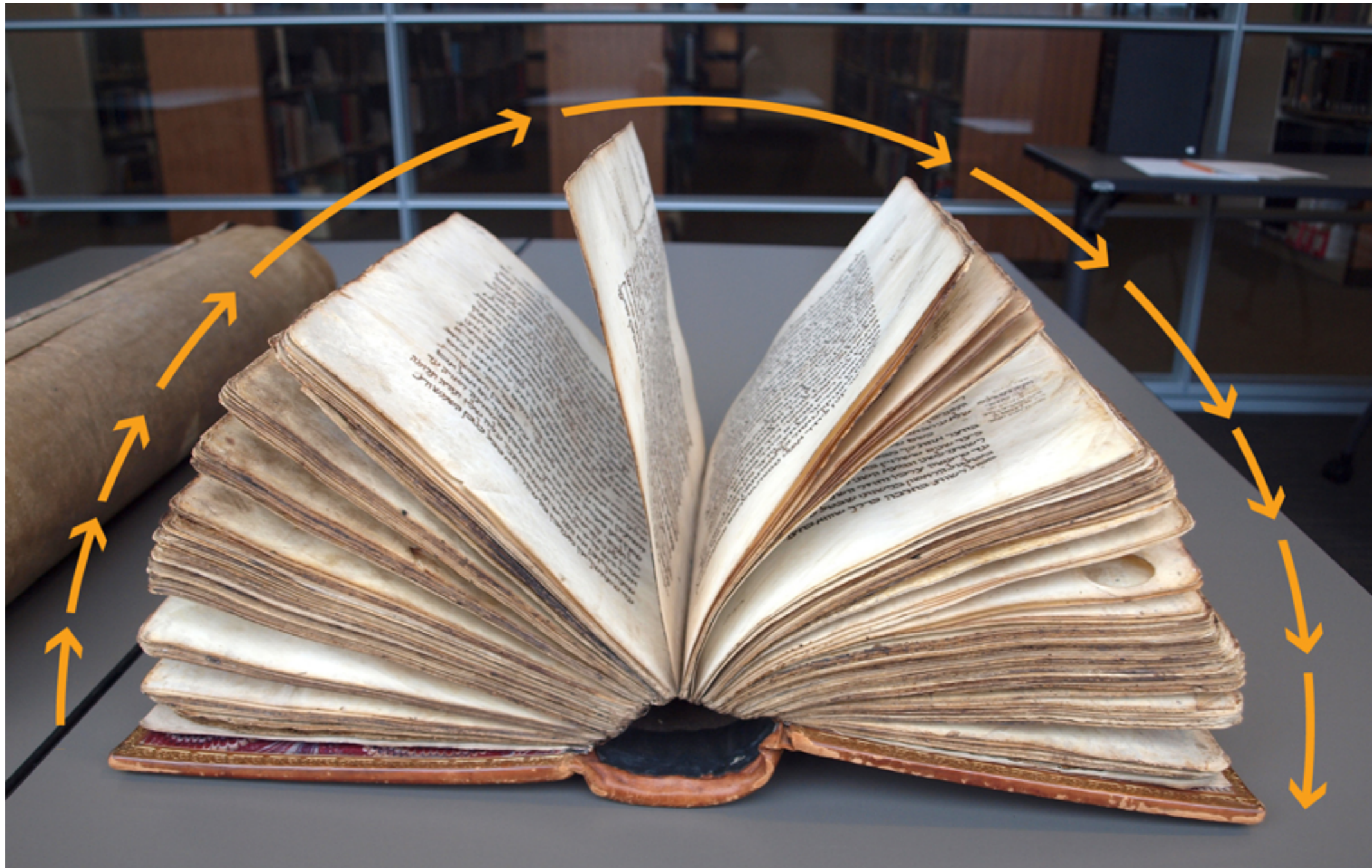
THE IMAGE OF THE BOOK



TROGU – STAUFFACHER – FARIS – USA

y important sensible and tactile attributes, another, more
action of the reader's mental image of the book. This is
ords, **the fixed sequence of words making up sentences,**
ragraphs and so on, until the full complete book is

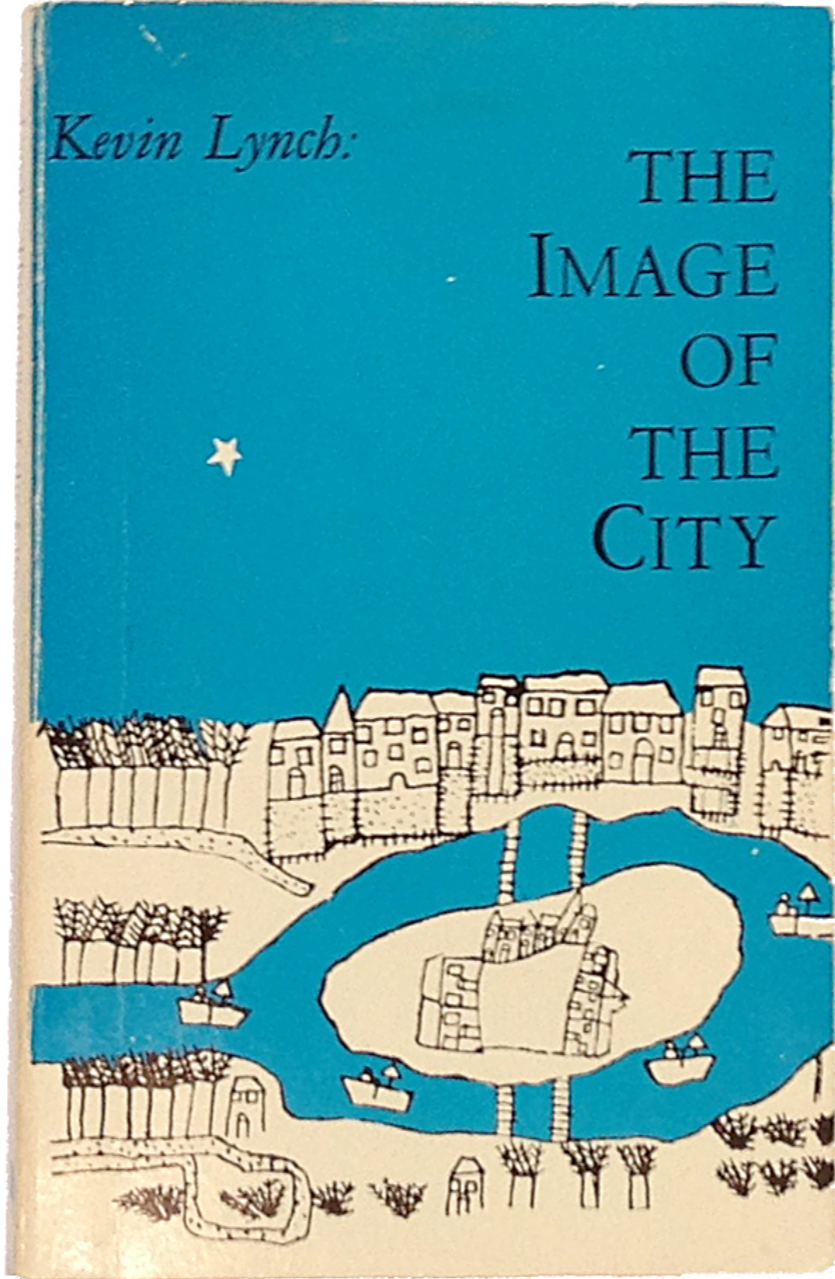


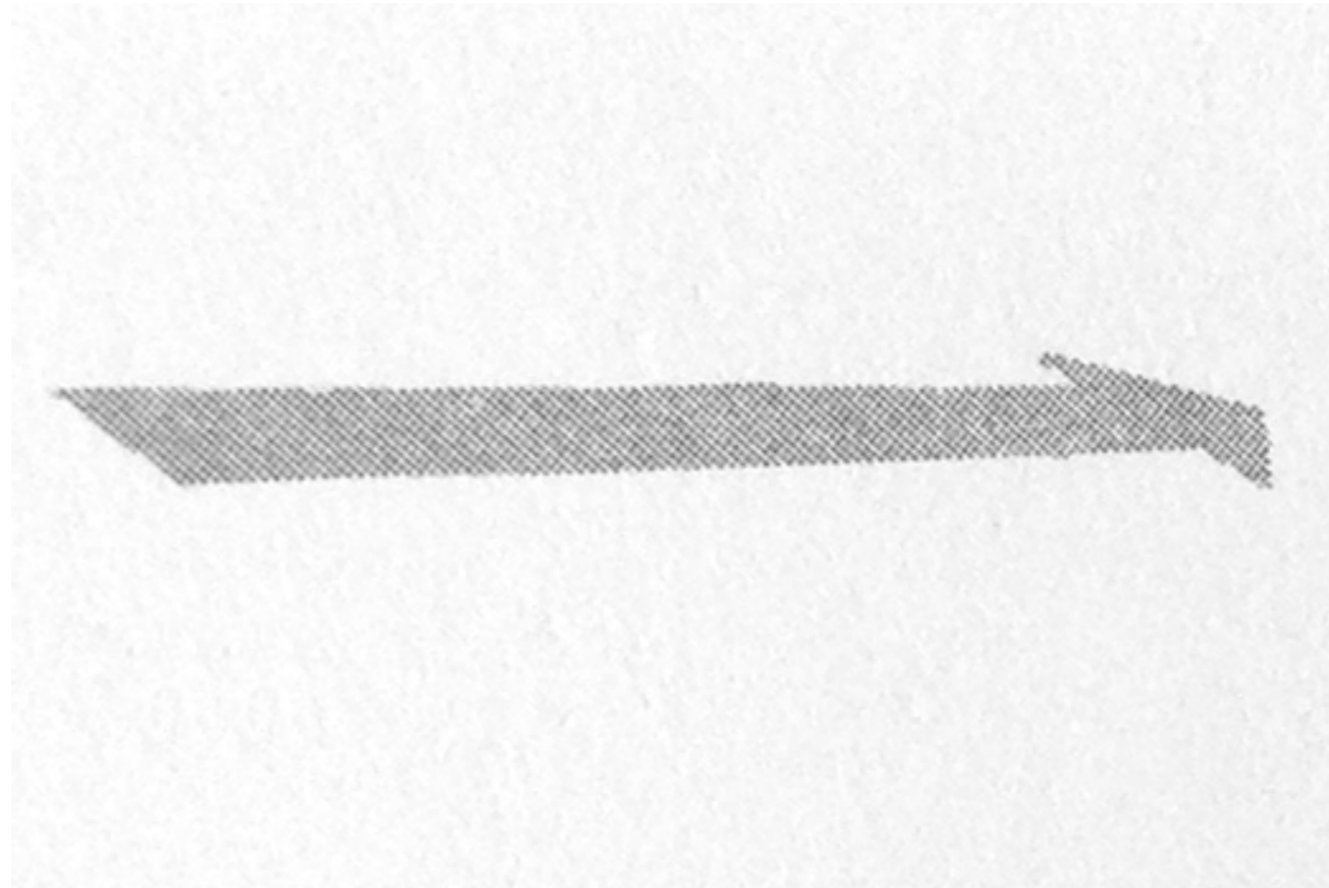


A digital book shrinks and expands – it’s “elastic”.

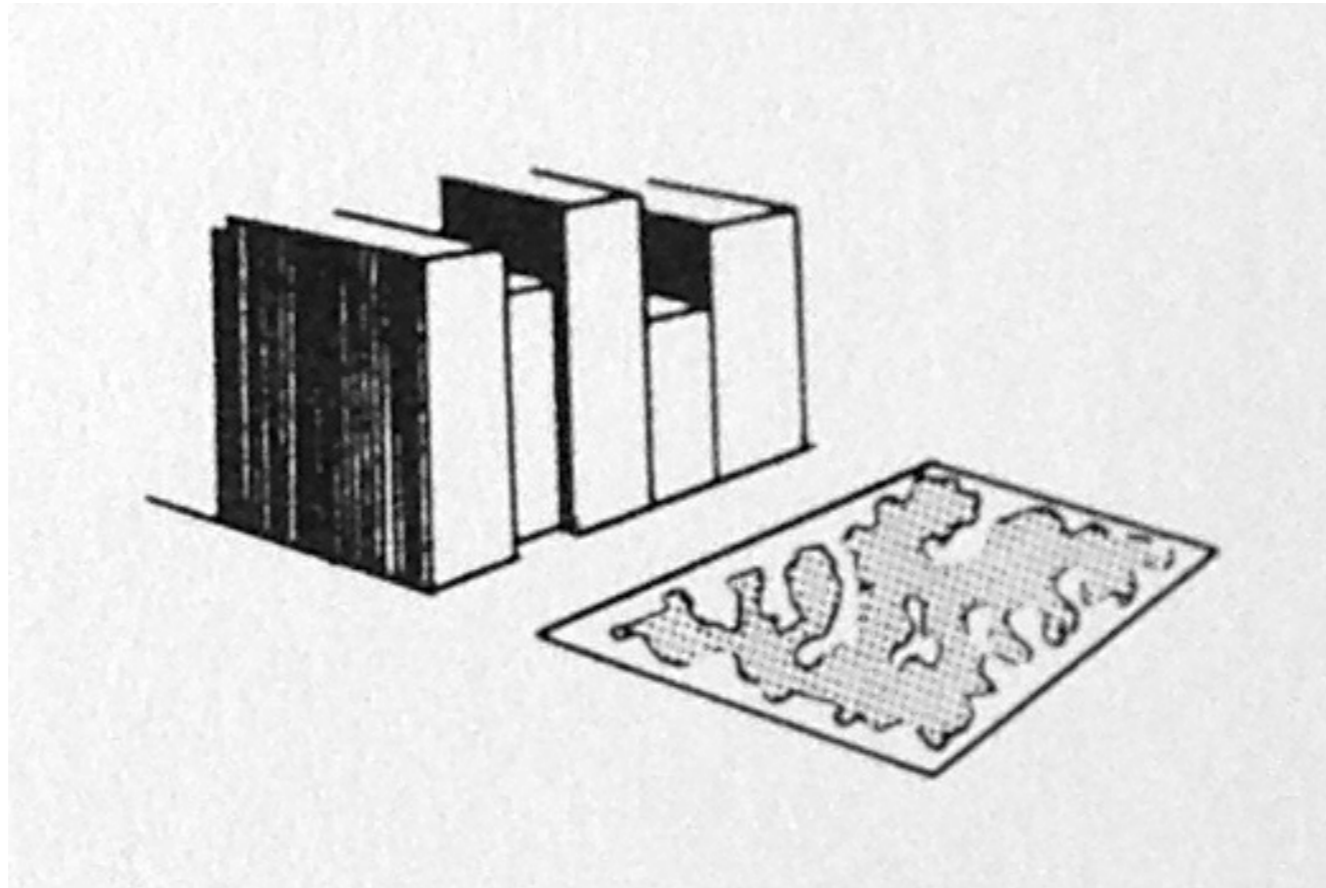
4. THE IMAGE OF THE BOOK

the
legitimacy
way -
finding ?

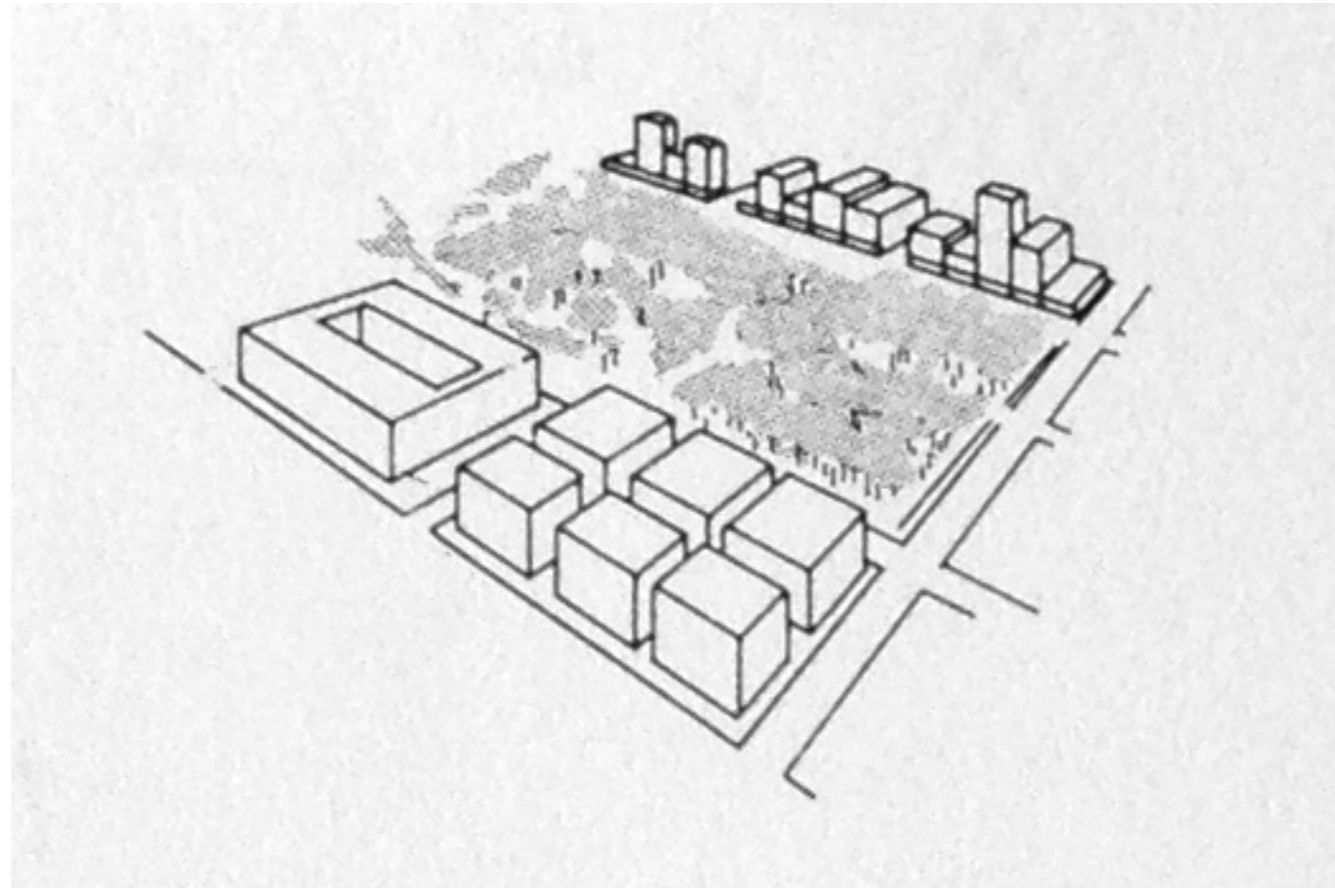




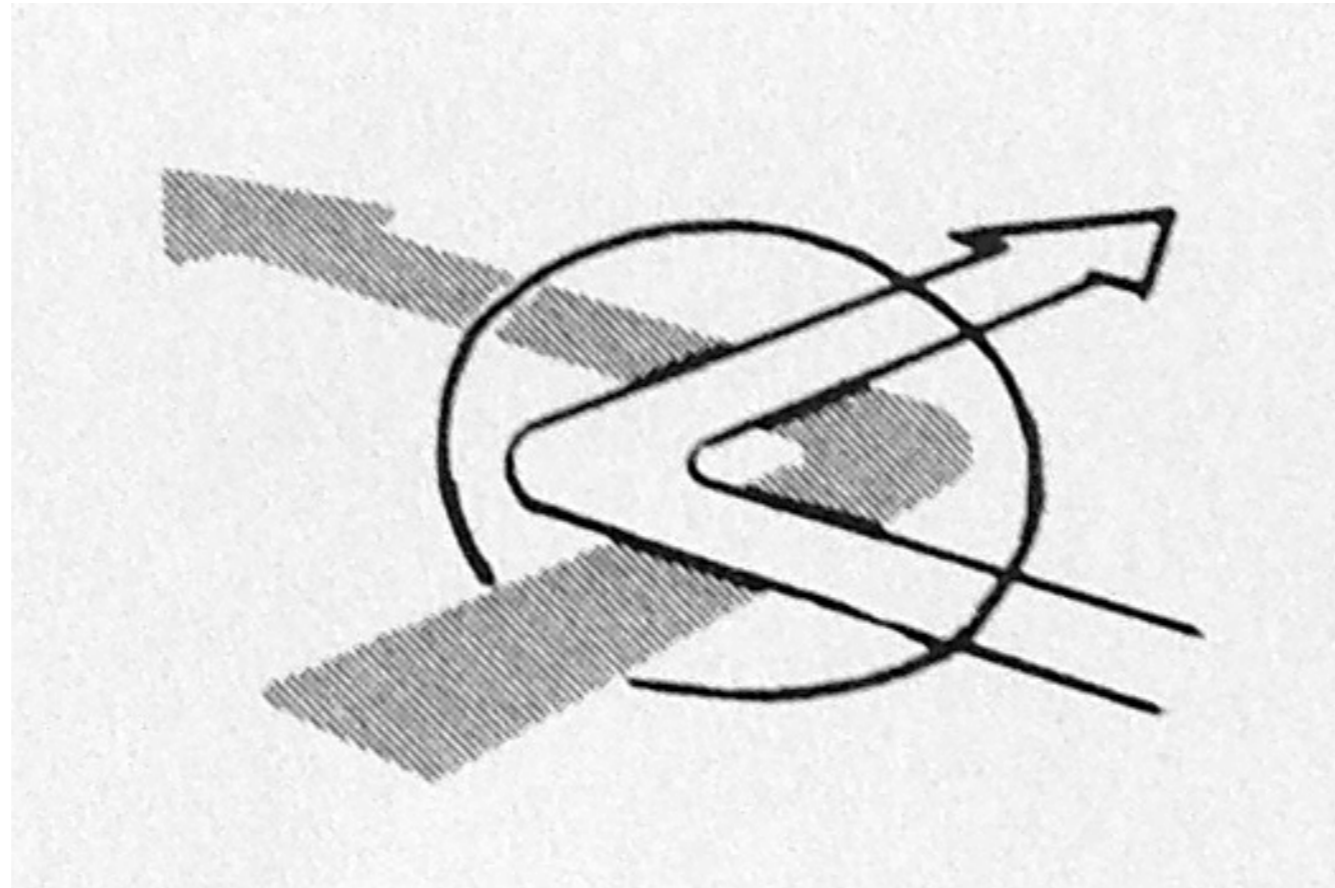
PATHS



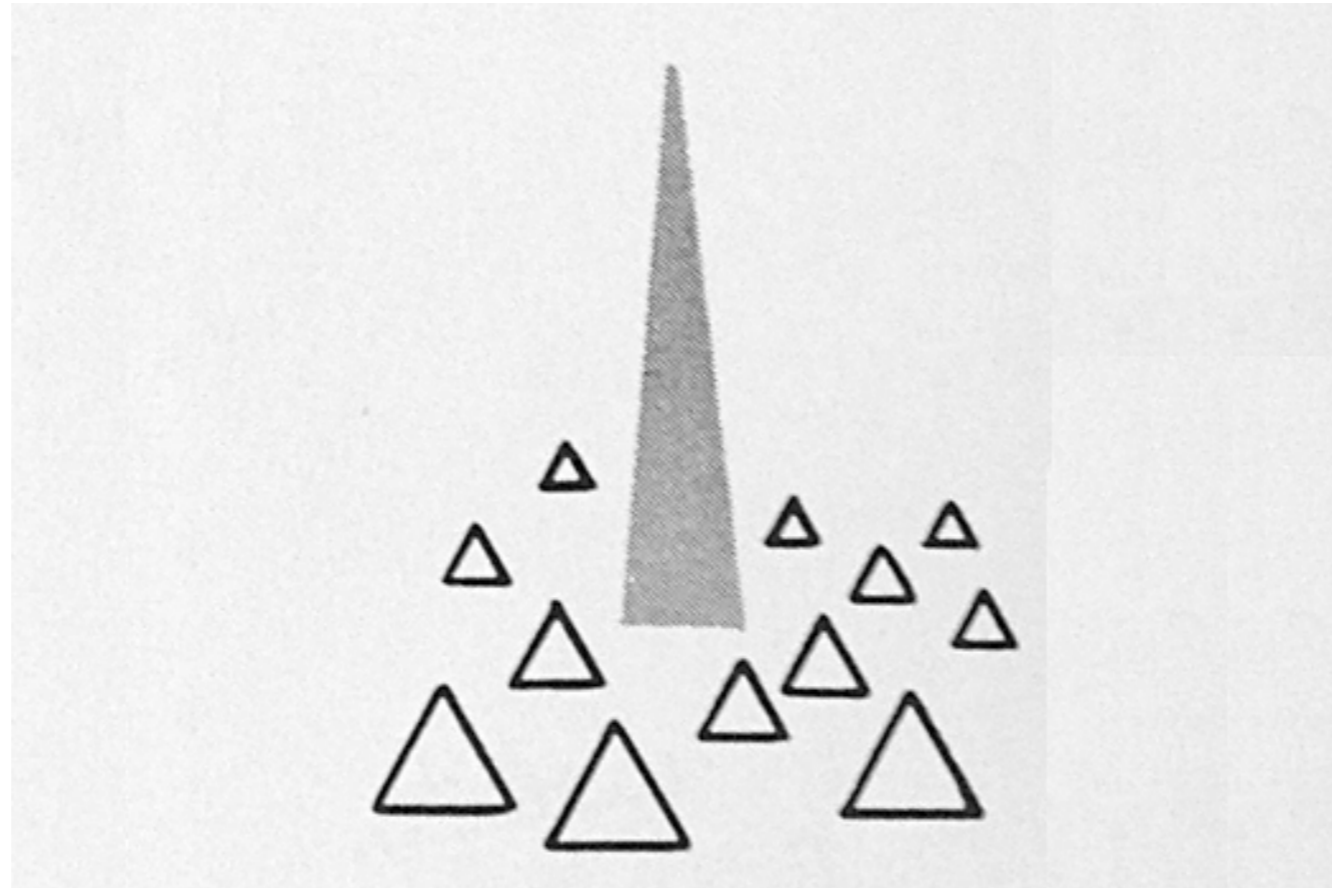
BOUNDARIES



DISTRICTS



NODES



LANDMARKS



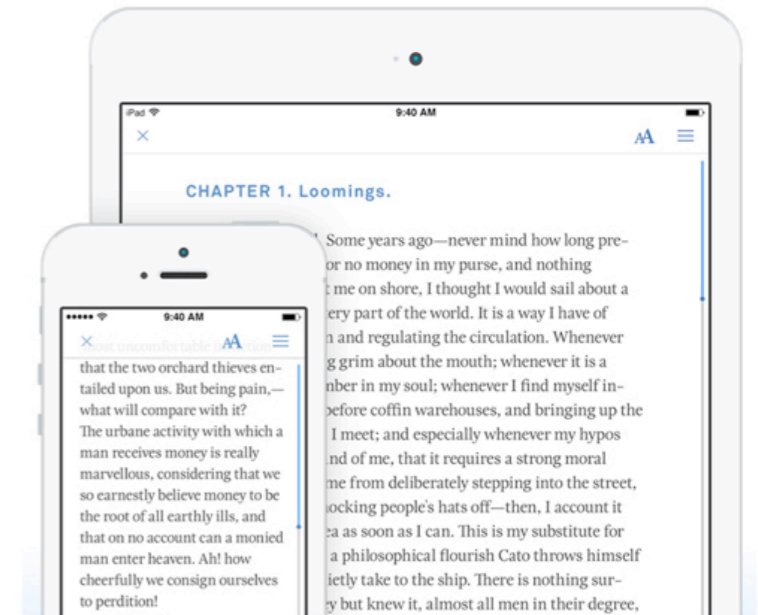
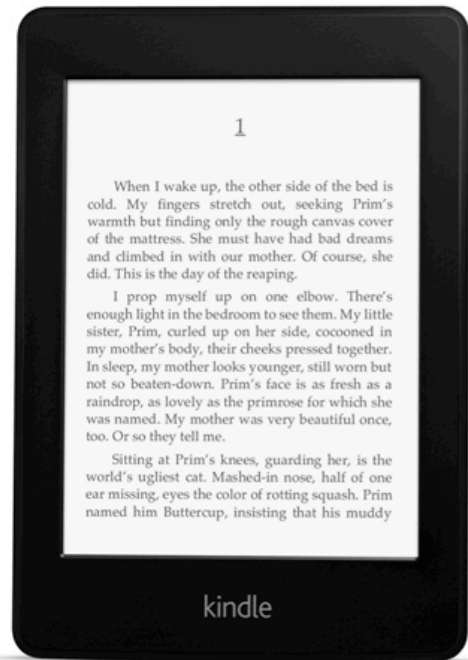
“...landmarks are easily identifiable and easily grouped into an overall pattern.”

(Lynch, 1960)

Camerado, this is no book,
Who touches this touches a man,

Walt Whitman





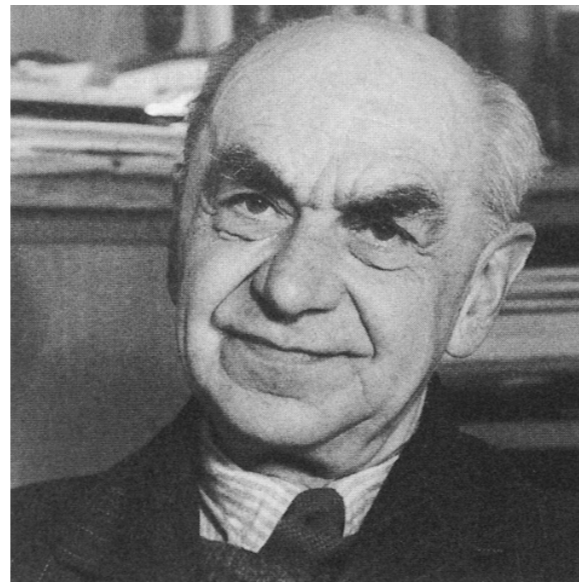
(minimal physical interaction)

5. GEORGE MILLER AND MEMORY

A HISTORY OF MEMORY



HERMANN EBBINGHAUS
ON MEMORY, 1885



FREDERIC BARTLETT
ON REMEMBERING, 1932



GEORGE A. MILLER
MAGICAL NUMBER SEVEN, 1956



ALAN D. BADDELEY
WORKING MEMORY, 1974



DANIEL WILLINGHAM
K-12 EDUCATION, 2012

*My problem is that
I have been persecuted
by an integer.*



GEORGE A. MILLER
MAGICAL NUMBER SEVEN, 1956

WORKING MEMORY



1 A beautiful design that did not work

In 1972 the New York City Transit Authority introduced a beautiful map of its subway system that was radically different from previous ones (Fig. 1). It was introduced in 1972, but just seven years later, after many complaints from confused subway riders, it was discontinued and a new map issued, with a more traditional design that has survived to the present day basically unchanged (Lloyd & Ovenden, 2012).

The discontinued map was by the Italian designer Massimo Vignelli, and is regarded as a monument to modernism, a graphic nod to abstract art, and a model of simplicity, with its clean, bright-colored lines admitting only verticals, horizontals, and forty-five degree angles. The map is indeed a beauty to behold (Lloyd & Ovenden, 2012). *Broadway Boogie Woogie* (Fig. 2).

Figure 1: New York subway map,

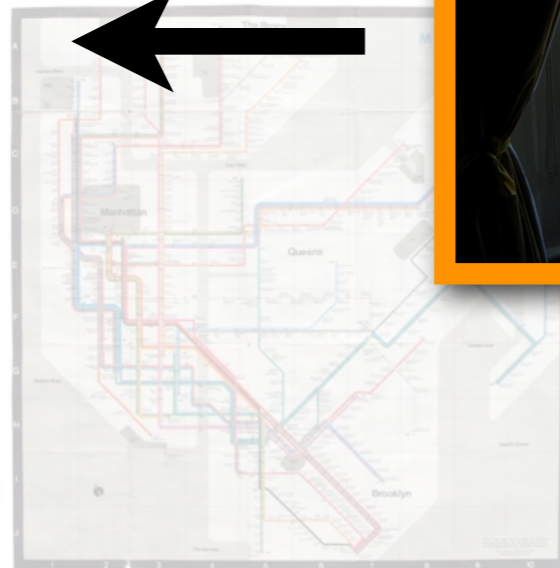


Figure 2: New York subway map, 1978. Pino Trogu collection.

Anais do
6º Congresso Internacional de Design da Informação
5º InfoDesign Brasil
6º Congic
Pino Trogu
San Francisco State University, USA
Recife | Brazil | 2013
ISBN

Proceedings of the
6th Information Design International Conference
5th InfoDesign Brazil
6th Congic
Pino Trogu
San Francisco State University, USA
Recife | Brazil | 2013
ISBN

Resurrecting the *Book*.

HOME SPEAKER

RS LOCAL INFO



15TH TO 17TH SEPTEMBER 2013

TO CELEBRATE THE OPENING of the largest public library in Europe and its outstanding special collections The Library of Birmingham, Newman University, Typographic Hub at Birmingham City University and The Library of Lost Books have united to host a three-day conference on the theme of Resurrecting the Book in the new Library of Birmingham, Birmingham UK



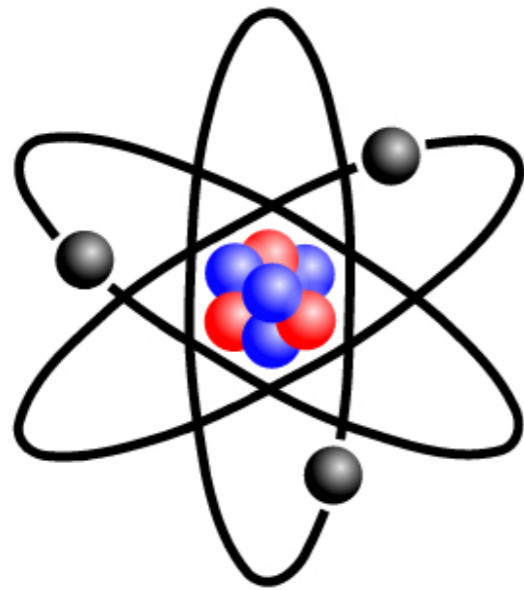
4-3-4-6-5-9-6-2-3

“chunks”

434-65-9623



a “chunk” can be a “locality”,
a neighborhood.



Atom



World War II

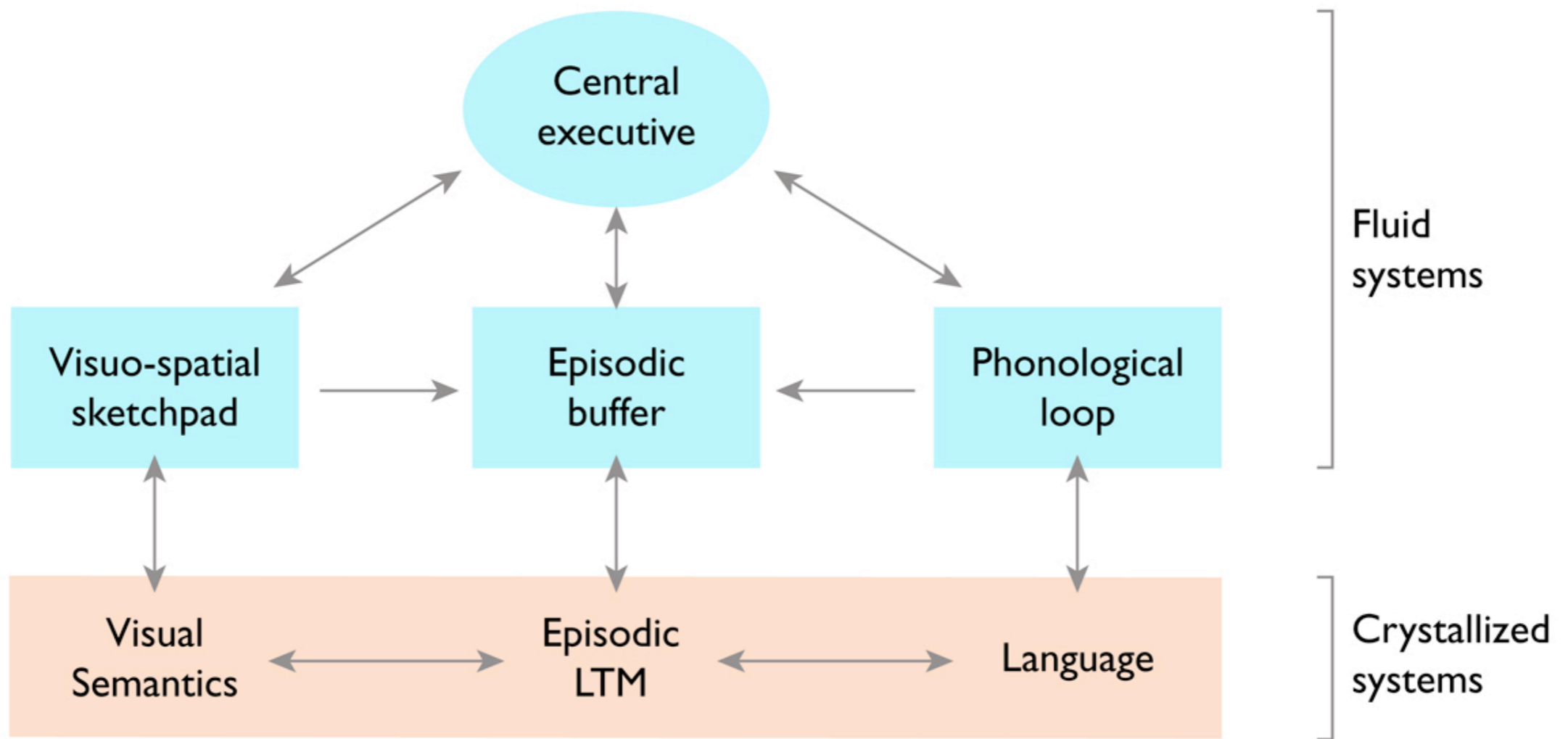
“Happy families are all alike; every unhappy family is unhappy in its own way. Everything was in confusion in the Oblonskys’ house. The wife had discovered that the husband was carrying on an intrigue with a French girl...”

(Anna Karenina’s incipit)

6. WORKING MEMORY: VERBAL, VISUAL, AND SPATIAL

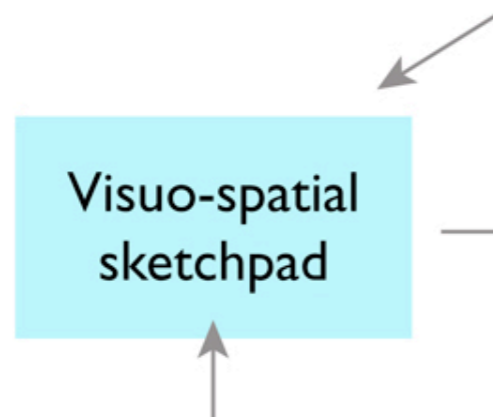


ALAN D. BADDELEY
WORKING MEMORY, 1974

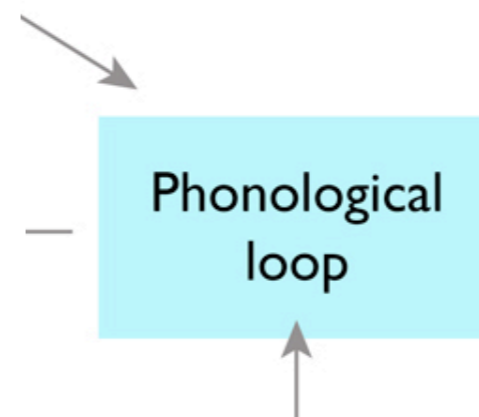


WORKING MEMORY MODEL

visual / spatial



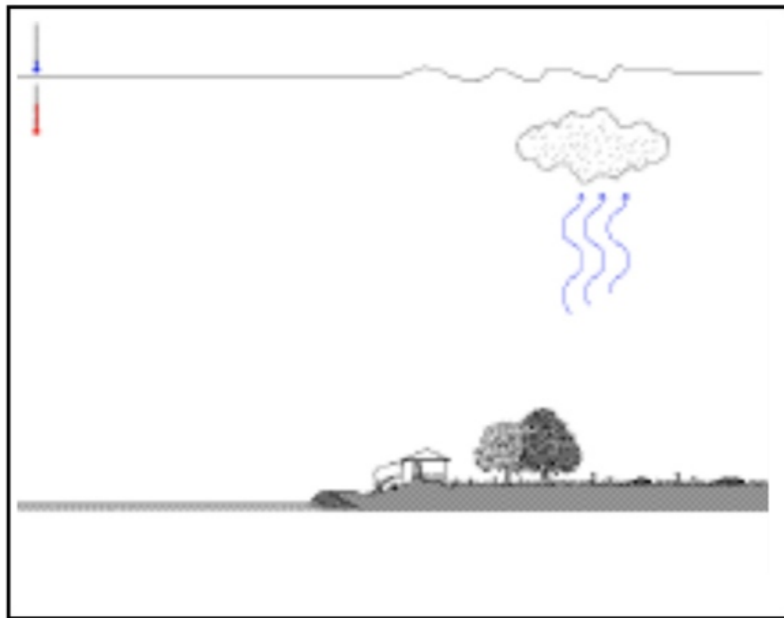
verbal / aural





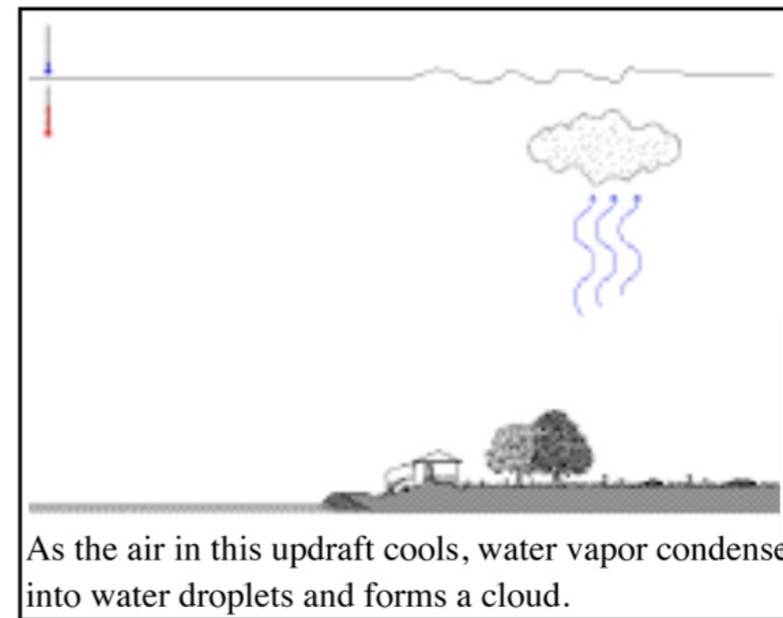


Animation and Narration



“As the air in this updraft cools, water vapor condenses into water droplets and forms a cloud”.

Animation, Narration, and On-Screen Text



As the air in this updraft cools, water vapor condenses into water droplets and forms a cloud.

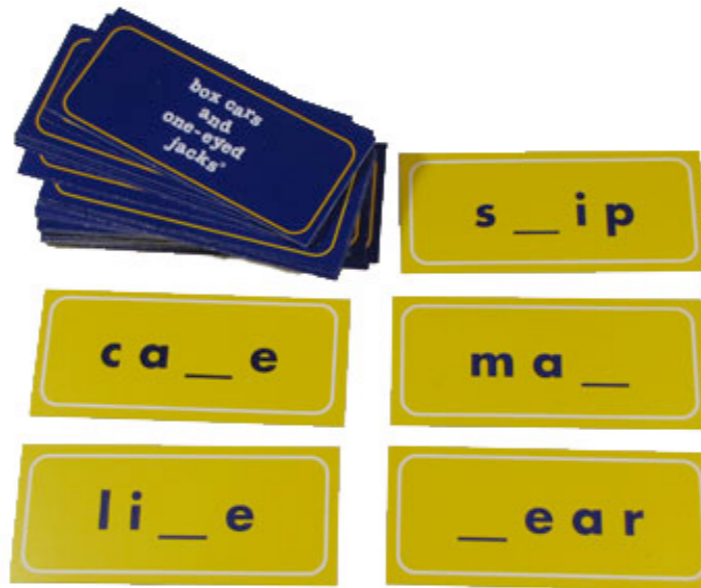
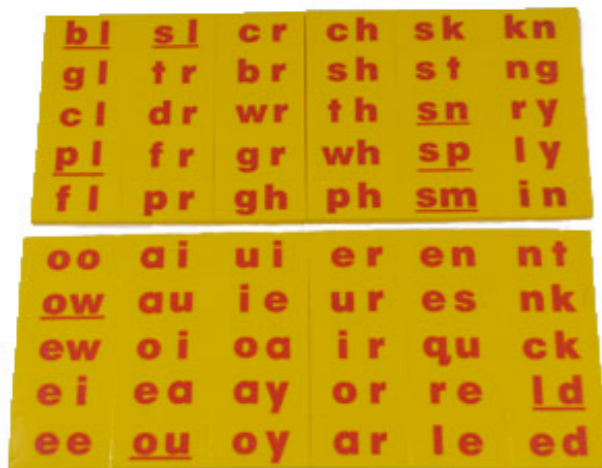
“As the air in this updraft cools, water vapor condenses into water droplets and forms a cloud”.

(Mayer, 2001)



In perception, spatial is always also temporal.

7. READING A BOOK WITH ALL THE SENSES



“manipulatives”

(Beverly & Mates, 2011)

THE IMAGE OF THE BOOK 10-25/26-2013 (00A)

Nov 2013
 UK
 THE BOOK BIRMINGHAM
 DRAFT MANUSCRIPT FOR "REMEMBERING THE BOOK"

When I started art high school in the early 1970s in Sardinia, Italy, I convinced my mother to pay for a weekly purchase of a 32-page signature — "dipensa settimanale" in Italian — that would in time form a complete encyclopedia, a History of Art set, ~~PIRO~~ ~~TRUGU~~ multi-volume.

What I did not realize at the start but became painfully obvious at the end of the process, was ~~that the fact~~ that, once completed, I ~~could not~~ ^{would} not be able to afford for the professional binding of the ~~ITB~~ ^{RTB} many signatures into actual volumes.

As with many "invisible" processes that we never notice normally, I had failed to recognize that books don't just hold themselves up by virtue of unseen forces, they stay together rather by thread, ~~glue~~ and glue.

Still, ~~put~~ aside the initial despair, I set to the task of trying to ~~bind~~ bind the books myself and even managed to finish one, albeit with a stitching pattern that appeared not entirely legitimate but rather clumsy and tentative. Still, the pages held together, but now I was faced with the hardbacks to be glued and that's where my limits put an end to the enterprise — I was probably 14 or 15 at the time.

To this day, and after having learned the basics of western bookbinding, the 20 or so volume set sits ^{still} unbound except for the coverless volume 1. (on the shelf of my childhood room,)

When I started art high school in the early 1970s in Sardinia, Italy, I convinced my mother to pay for a weekly purchase of a 32-page signature (a section of a book) that would in time form a complete Encyclopaedia, a multi-volume History of Art set. What I did not realize at the start but became painfully obvious at the end of the process, was that once the set was completed, I would not be able to afford the cost for professional bookbinding to turn the many signatures into the actual volumes. As with so many invisible processes that we seldom notice normally, I had failed to recognize that books don't just hold themselves up by virtue of an unseen force, rather they stay together by thread and glue. But, put aside the initial despair, I set out to the task of trying to bind the books myself and even managed to finish one, albeit with a stitching pattern that was a bit mixed up. Still, the pages held together, but now I was faced with the additional task of gluing the hard backs and that's where my limits put an end to the enterprise. To this day, and after having learned the basics of western bookbinding, the 20 or so volumes still sit on the shelf of my childhood room, still unbound except for the coverless first volume.

Not knowing yet that a deep structure of the text might even exist, I nevertheless appreciated the deep, obvious structure of the manufacturing process of the book, even if the details remained unknown. With that experience came an attachment to the physical book that is perhaps common to many individuals but is sometimes difficult to rationalize. If the content is what matters and if one should not judge a book by its cover, what really justifies this attachment to the physical book?

The pages in the physical book are three-dimensional. They have a width, a height and a depth: the thickness of the paper. The pages in a virtual book are two-dimensional, they have a height and a width but not a depth. And the width and the height are often not fixed, but can be changed at will by the reader. Any change in the width and height of the page is likely to cause other changes such as line length, number of words per line, font size, and as a result, change the beginning and the end of the text within a specific page.

In digital books, attempts have been made, and devices have been included, to let the reader choose a preferred fixed view of the page. But this fixed view is quickly challenged by issues of type size (screens and devices) and orientation (portrait to landscape? single pages or spread?). The flexibility of digital text has been hailed as a boon to people who have low vision who can now simply enlarge the font as needed. However one such individual, the psychiatrist Oliver Sacks, laments the disappearance of large print physical books which were once common in bookstores (The New York Times Book Review, 12-16-2012, p.35) Like many, he cites the ability to immediately find a particular passage in most of his physical books.

The digital response to this complaint would be to point to be ubiquitous, and efficient, search feature of all-digital readers. Why should we need to remember the location of a specific sentence or phrase when we can easily search for it by typing a query in the search box?

In this paper we will argue that the physical embodiment of the book as a result of the stack of pages assembled between the covers enhances reading not simply through the tactile dimension of the surface of the paper, but helps in the actual remembering of the content of the book. By physically moving through the pages with the hands, as well as leaving physical marks on the book, the reader creates a "mental image" of the book, a map of its contents, similar to other mental images or maps, such as geographic images, the sense of the character or a person, or the sense of historical events.

The physical disappearance of the book as an object that can now fit in a space too small to be described — yet a space so large as to hold entire libraries — has had the effect of removing constraints, barriers, resistances, and buffers zones which have always been a characteristic of physical books. But the stack of pages between the covers requires physical exploration. Each step moving forward brings a physical, visible change, for example by the way that a spread keeps a tangible divide between the pages already read and the pages still left to be read.

The page at hand marks of course our current location in the story, the narration. It's that "you-are-here" spot of a familiar well-drawn map of a building or a city. That page is often marked by a number, a "folio" that tells us exactly where we are, if we know the total number of pages in the

8. HYPERTEXT IN BOOKS: LINEARITY VS CONNECTIONS

langue / parole

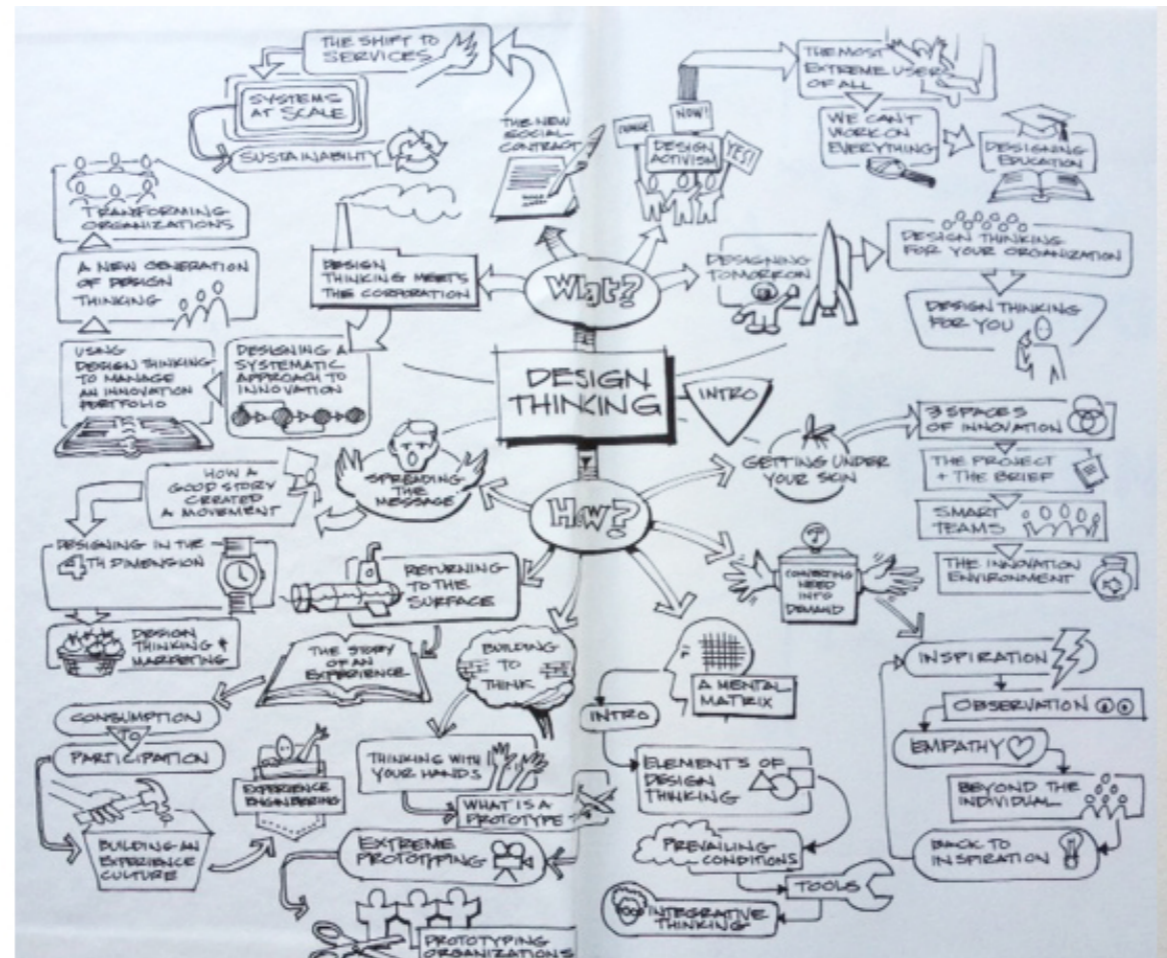
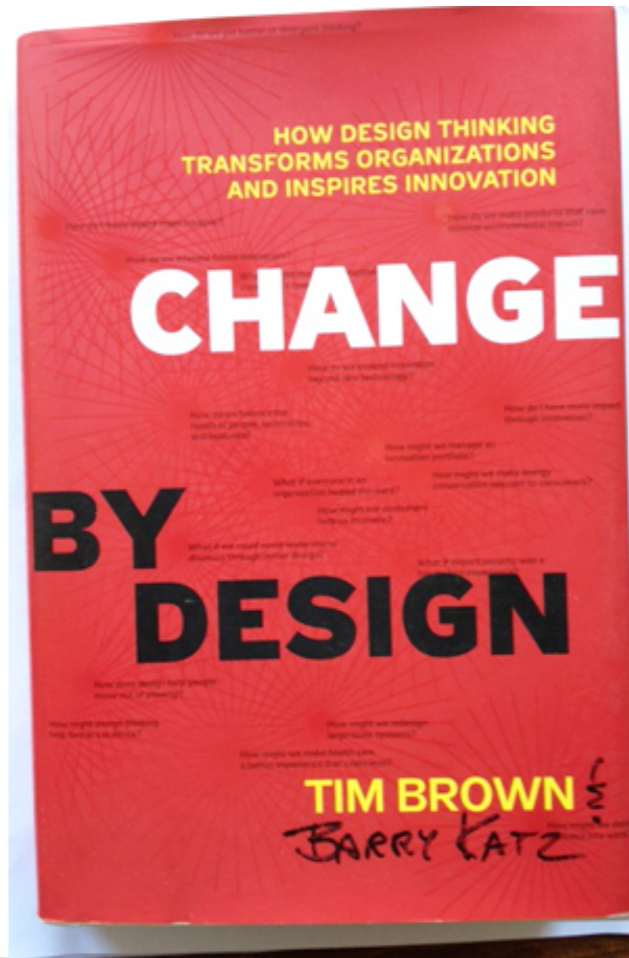


FERDINAND DE SAUSSURE

LINGUISTICS, 1906-11

MIND MAP VS T.O.C.

ABSTRACT REFERS TO ABSTRACT



CONTENTS

INTRODUCTION: THE POWER OF DESIGN THINKING	1
PART I: WHAT IS DESIGN THINKING?	
1 Getting Under Your Skin, or How Design Thinking Is About More Than Style	13
2 Converting Need Into Demand, or Putting People First	39
3 A Mental Matrix, or "These People Have No Process!"	63
4 Building To Think, or The Power Of Prototyping	87
5 Returning To The Surface, or The Design Of Experiences	109
6 Spreading The Message, or The Importance Of Storytelling	129

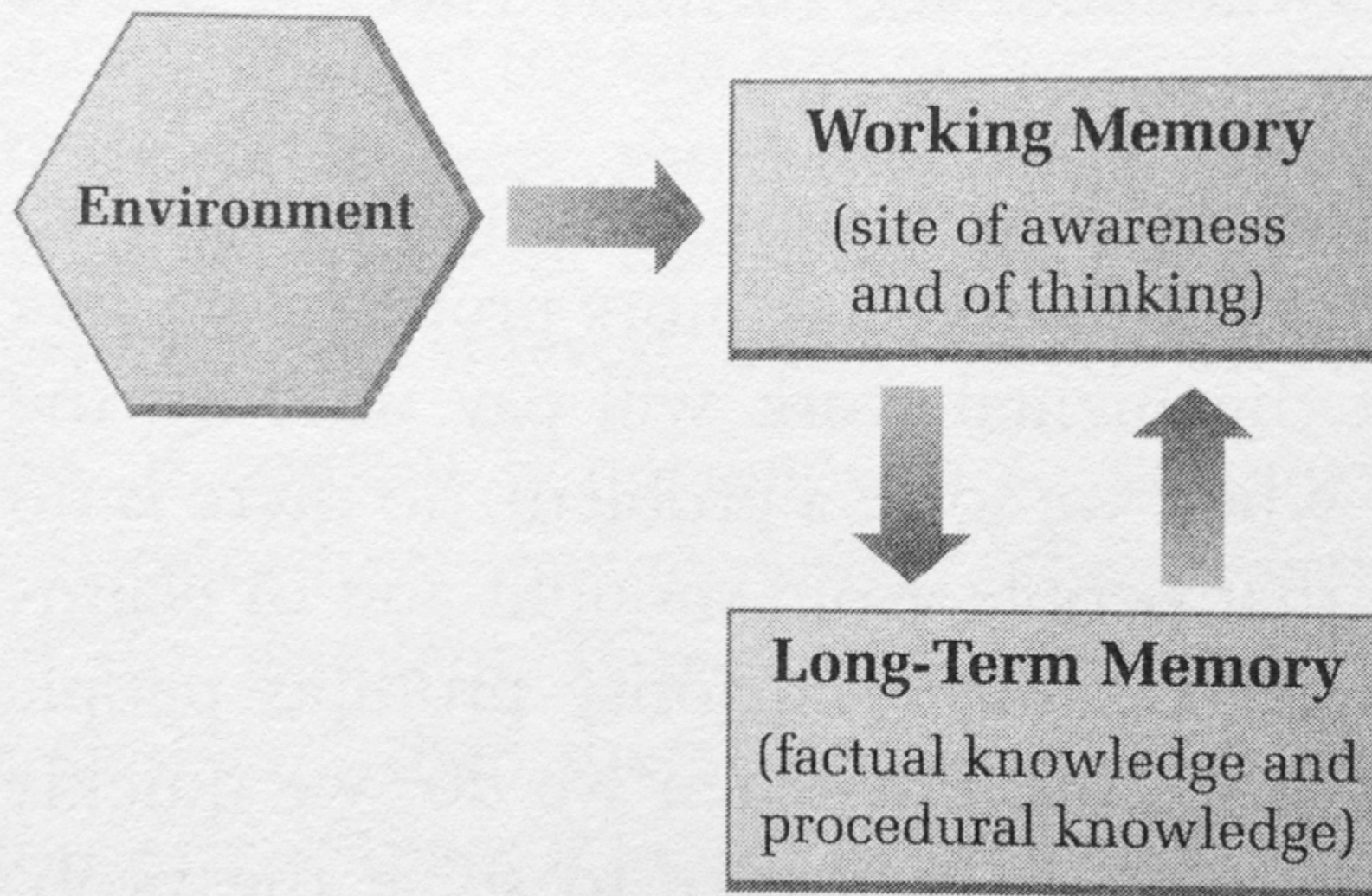
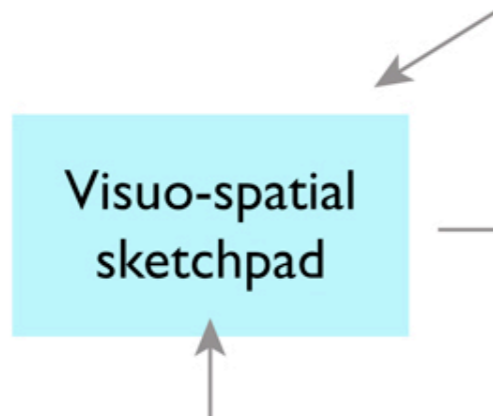


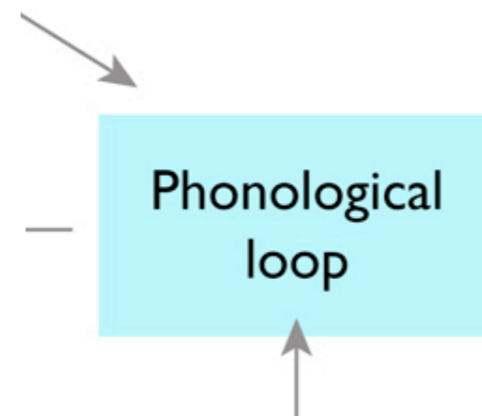
FIGURE 6: Just about the simplest model of the mind possible.

(Willingham, 2009)

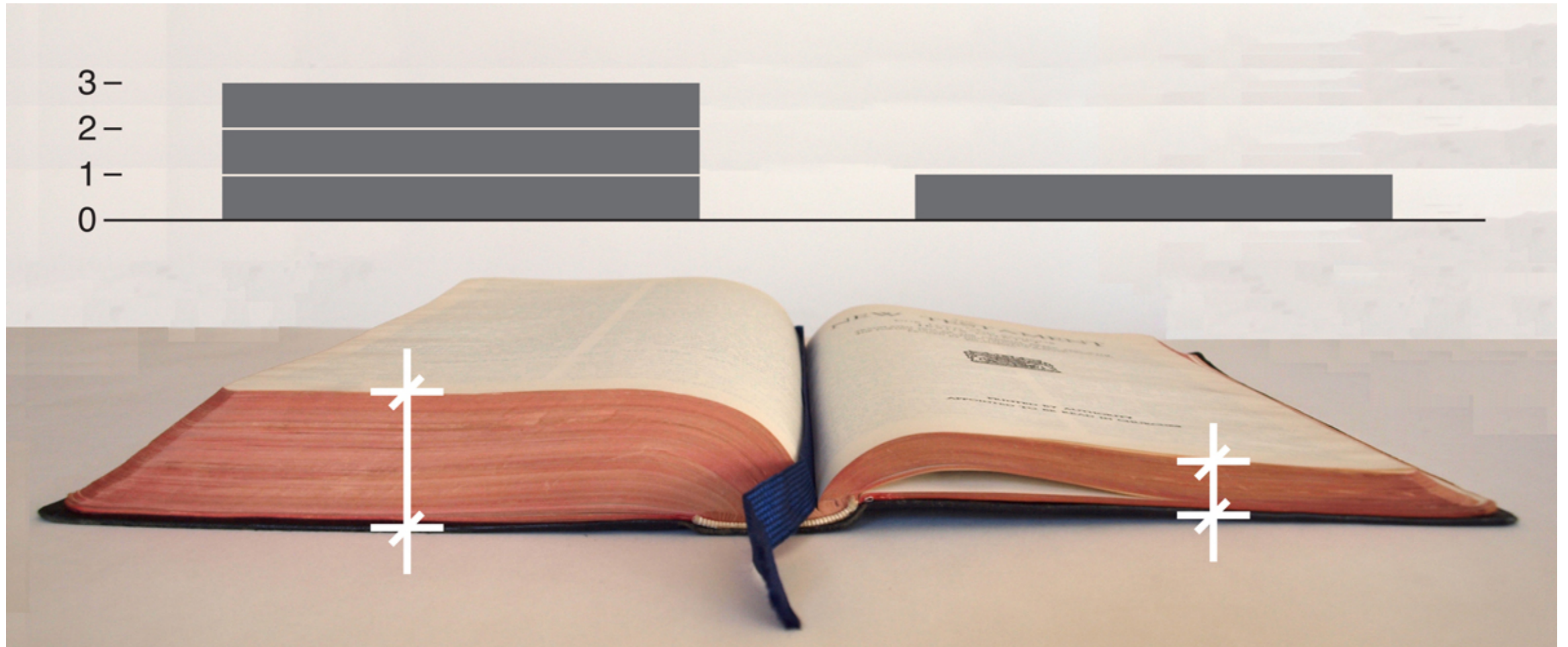
visual / spatial



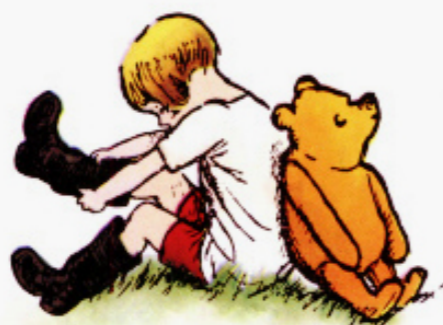
verbal / aural



physical manipulation stimulates
the visual / spatial component



pulled at his boot until he had got it on.



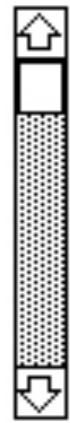
"And that's that," said Pooh. "What do

"We're going to discover the North Pole."

"Oh!" said Pooh again. "What is the North Pole?" he asked.

"It's just a thing you discover," said Christopher Robin carelessly, not being quite sure himself.

"Oh! I see," said Pooh. "Are bears any good at discovering it?"



1984
Mac OS



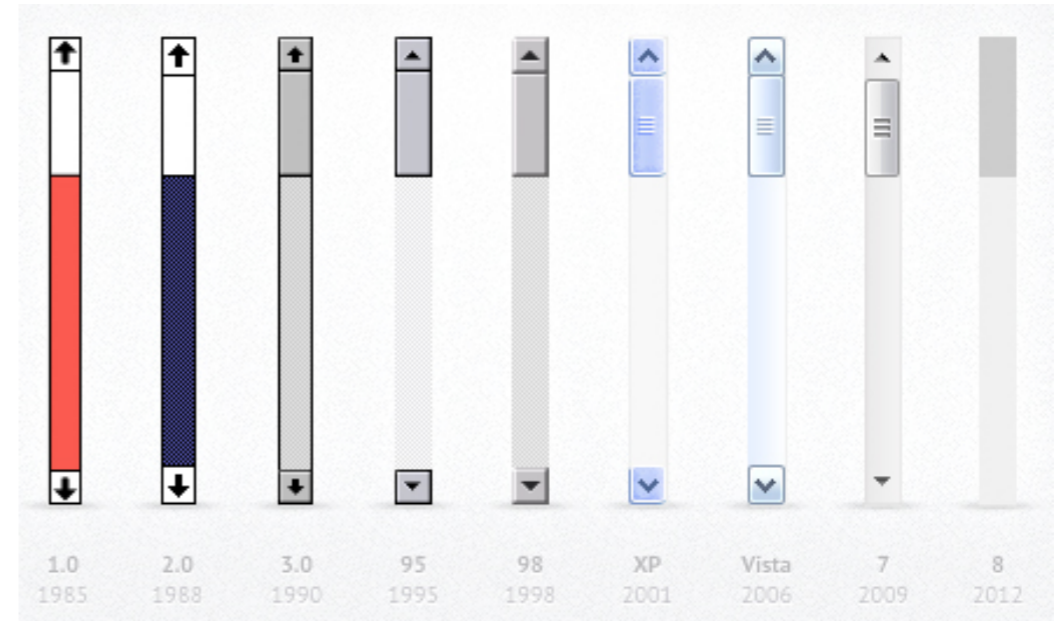
2000
Mac OS X



2007
iOS



2011
OS X 10.7



The New York Times
Sunday, November 3, 2013

Best Sellers

BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION
DESIGN **BOOKS** Sunday Book Review Best Sellers DANCE MOVIES

November 10, 2013 **Nov 03, 2013** Nov 17, 2013

THIS WEEK	E-BOOK FICTION	WEEKS ON LIST
1	SYCAMORE ROW , by John Grisham. (Doubleday.) A sequel, about race and inheritance, to "A Time to Kill."	1
2	THE GOLDFINCH , by Donna Tartt. (Little, Brown.) A painting smuggled out of the Metropolitan Museum of Art after a bombing becomes a boy's prize, guilt and burden.	1
3	THE HUSBAND'S SECRET , by Liane Moriarty. (Amy Einhorn/Putnam.) A woman's life is upended when she discovers a letter from her husband she was not meant to read until after his death.	13
4	ENDER'S GAME , by Orson Scott Card. (Tor/Tom Doherty.) Government agencies breed child geniuses and train them as soldiers. Originally published in 1985; a film adaptation is scheduled for late 2013.	13
5	WE ARE WATER , by Wally Lamb. (Harper.) About to marry the woman who is her gallery owner, a divorced artist and mother must confront secrets from her past.	1

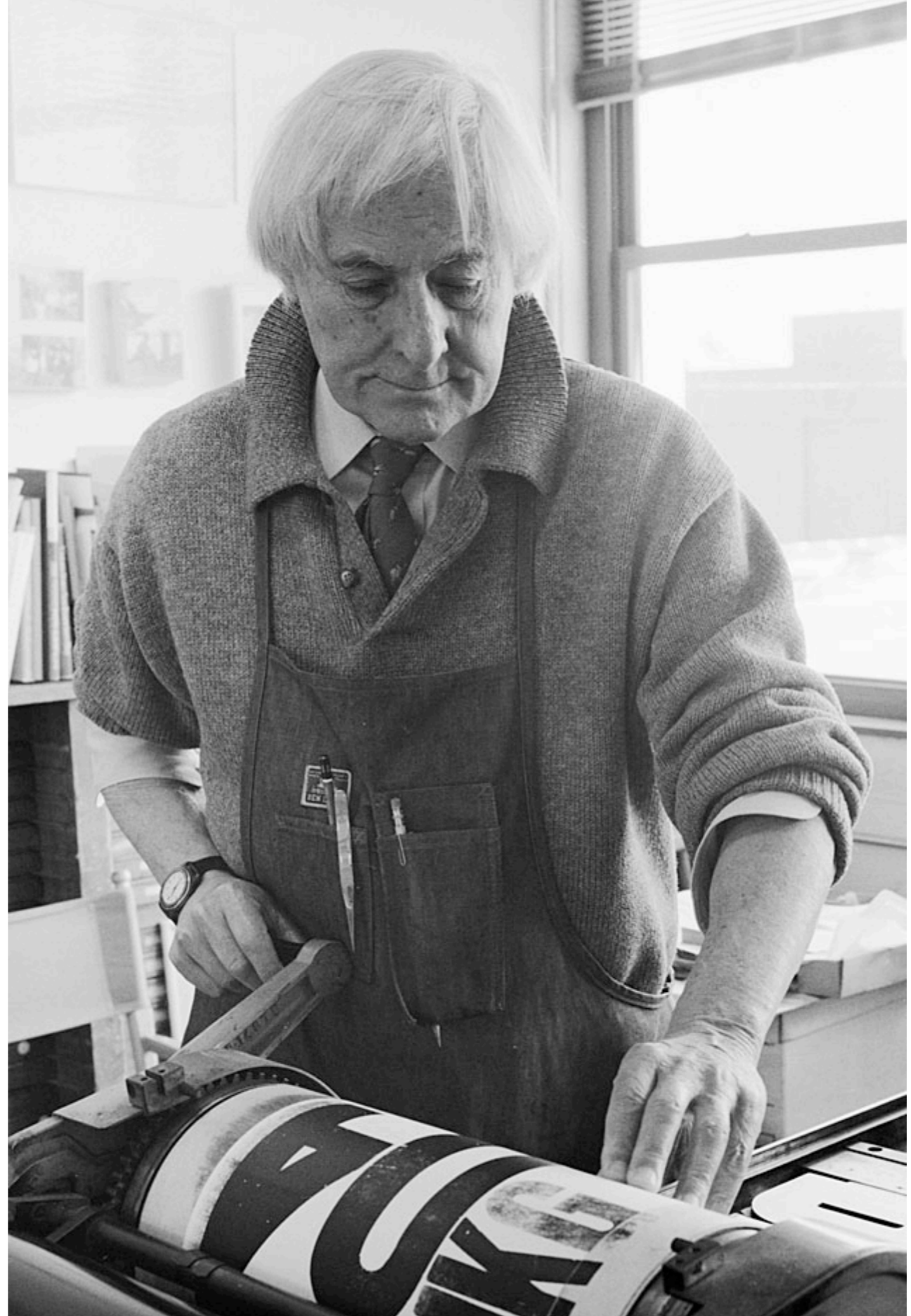


Photo: courtesy of the Sutro Library, San Francisco.

9. THE GREENWOOD PRESS

JACK STAUFFACHER

Photo: Dennis Letbetter





Printers' Building
300 Broadway
San Francisco, California

10. THE *PHAEDRUS*

I

227A–230E INTRODUCTORY CONVERSATION. THE SCENE ON
THE BANK OF THE ILISSUS

Socrates meets Phaedrus, who is about to take a walk outside the city wall, after spending the whole morning listening to a speech by Lysias and studying it. Socrates expresses great interest in the speech, and is told that he may well do so, for its subject was love; it took the form of an address to a boy by one who was not his lover, but claimed his favour for that very reason. Phaedrus, entreated to repeat the discourse, professes his inability to do so; but before long it transpires that he has the actual manuscript with him, and he agrees to read it.

The two turn their steps along the bank of the Ilissus, and pass the spot reputed to be the scene of the rape of Oreithuia by Boreas. Phaedrus mentions a rationalised version of the legend, but Socrates professes indifference to such 'scientific' interpretations: his time is better spent in 'knowing himself'. Finally a cool shady spot is reached, hard by a sanctuary of the Nymphs. Socrates grows enthusiastic over the delightful scene, and Phaedrus rallies him on his unfamiliarity with the countryside. Fields and trees, replies Socrates, have nothing to teach him; yet Phaedrus has discovered the way to lure him out: to hear a literary composition he would be ready to go anywhere.

Socrates. Where do you come from, Phaedrus my friend, and where 227
are you going?

Phaedrus. I've been with Lysias, Socrates, the son of Cephalus, and I'm off for a walk outside the wall, after a long morning's sitting there. On the instructions of our common friend Acumenus¹ I take my walks on the open roads; he tells me that is more invigorating than walking in the colonnades.

Soc. Yes, he's right in saying so. But Lysias, I take it, was in town. B

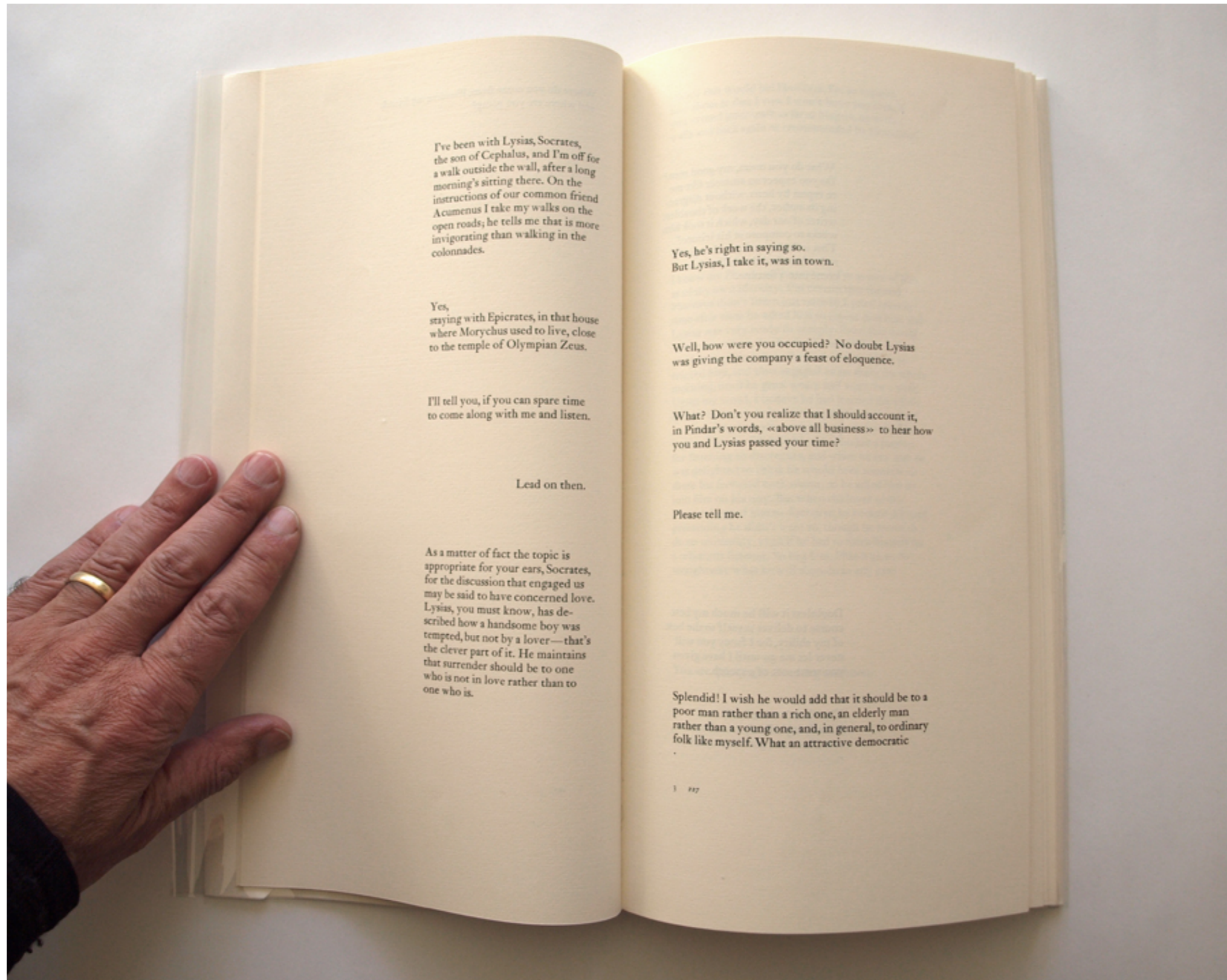
Ph. Yes, staying with Epicrates, in that house where Morychus used to live, close to the temple of Olympian Zeus.

Soc. Well, how were you occupied? No doubt Lysias was giving the company a feast of eloquence.

Ph. I'll tell you, if you can spare time to come along with me and listen.

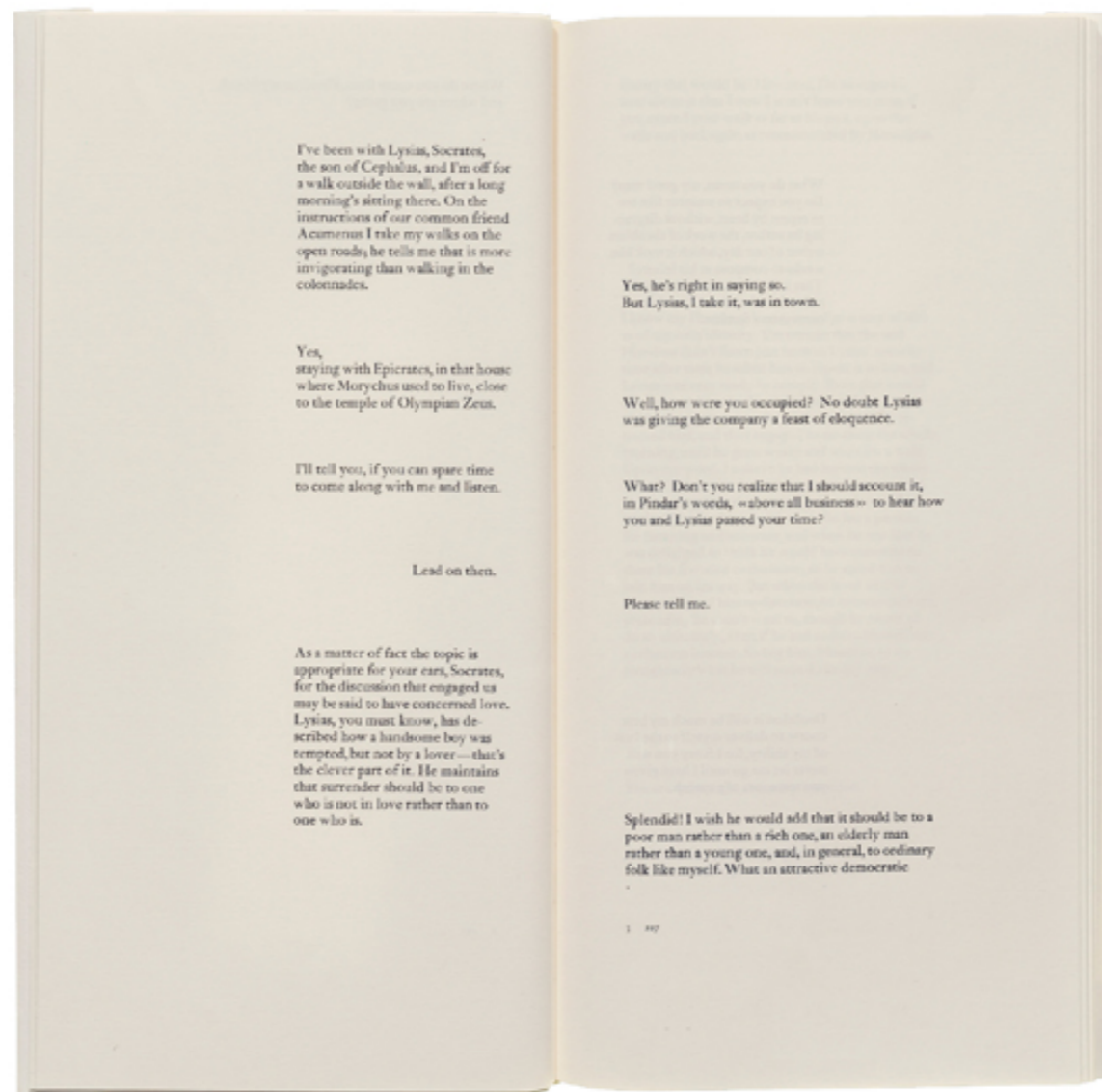
¹ A well-known physician, father of Eryximachus, the physician who is one of the speakers in the *Symposium*.

Phaedrus
(translated by R. Hackforth, 1952)





Phaedrus



I've been with Lysias, Socrates, the son of Cephalus, and I'm off for a walk outside the wall, after a long morning's sitting there. On the instructions of our common friend Acumenus I take my walks on the open roads; he tells me that is more invigorating than walking in the colonnades.

Yes, staying with Epicrates, in that house where Morychus used to live, close to the temple of Olympian Zeus.

I'll tell you, if you can spare time to come along with me and listen.

Lead on then.

As a matter of fact the topic is appropriate for your ears, Socrates, for the discussion that engaged us may be said to have concerned love. Lysias, you must know, has described how a handsome boy was tempted, but not by a lover—that's the clever part of it. He maintains that surrender should be to one who is not in love rather than to one who is.

Yes, he's right in saying so. But Lysias, I take it, was in town.

Well, how were you occupied? No doubt Lysias was giving the company a feast of eloquence.

What? Don't you realize that I should account it, in Pindar's words, «above all business» to hear how you and Lysias passed your time?

Please tell me.

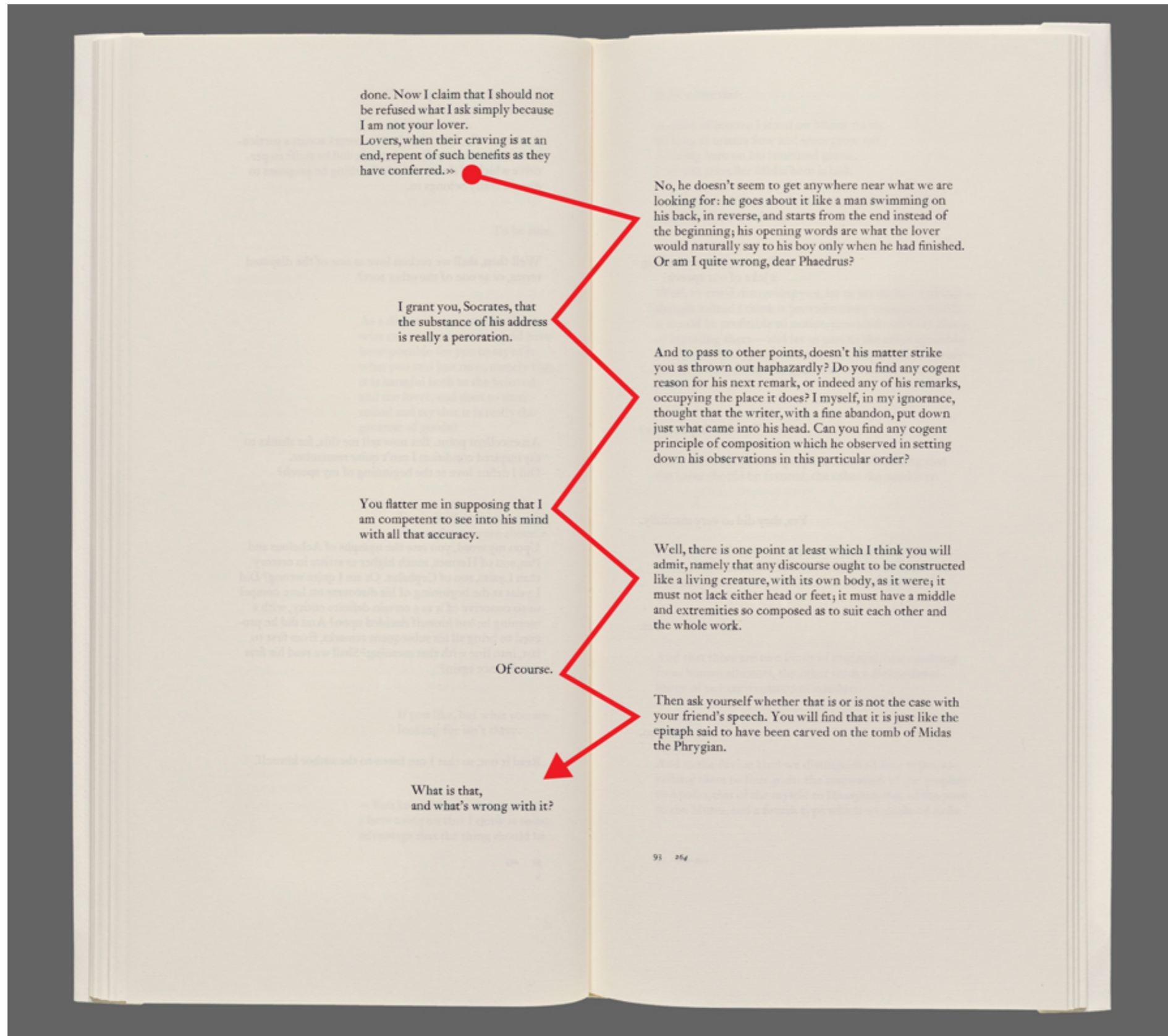
Splendid! I wish he would add that it should be to a poor man rather than a rich one, an elderly man rather than a young one, and, in general, to ordinary folk like myself. What an attractive democratic

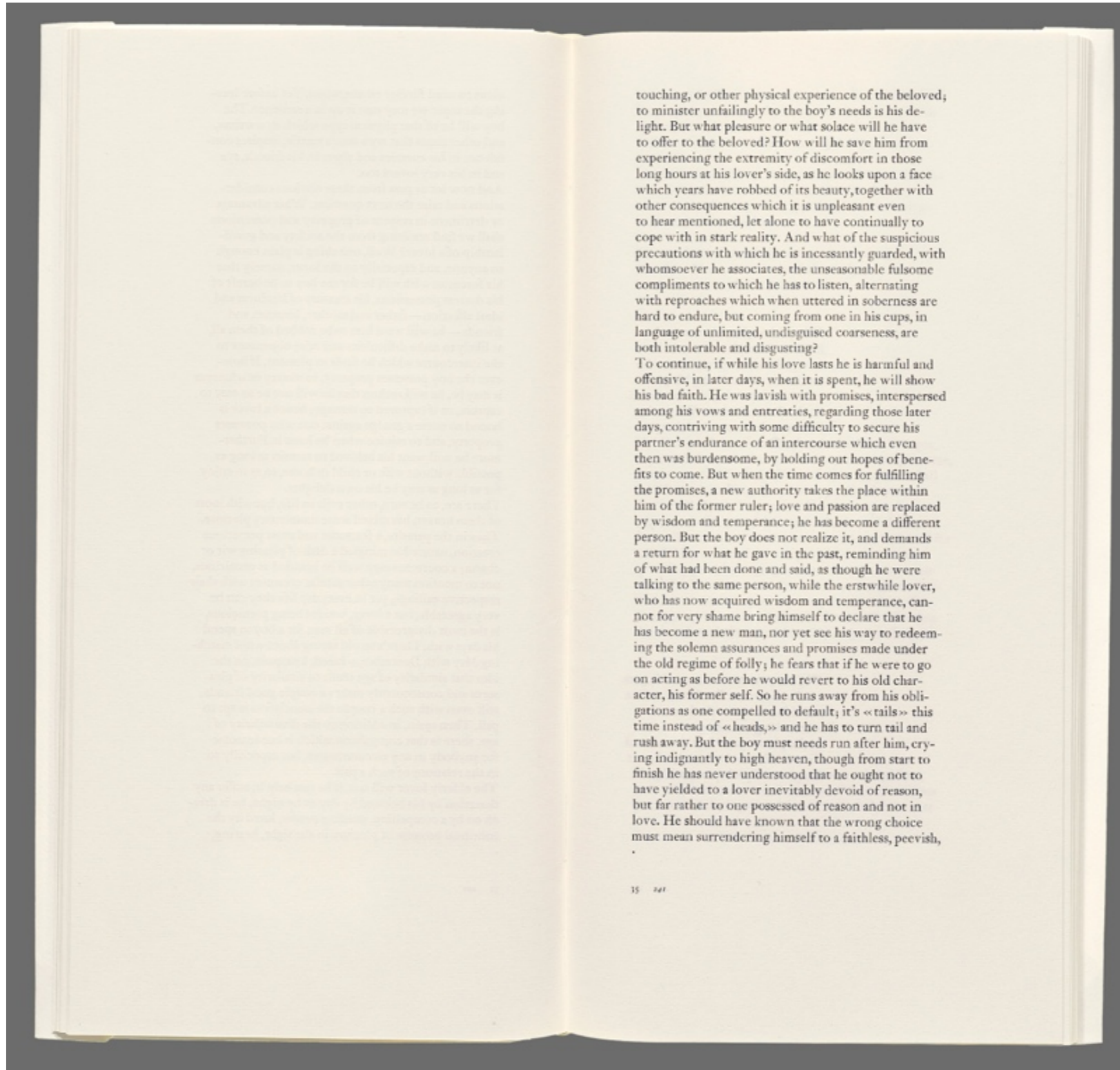


Socrates



Reader





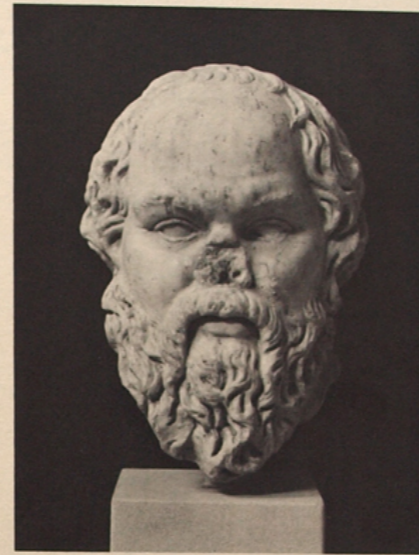
touching, or other physical experience of the beloved; to minister unflinchingly to the boy's needs is his delight. But what pleasure or what solace will he have to offer to the beloved? How will he save him from experiencing the extremity of discomfort in those long hours at his lover's side, as he looks upon a face which years have robbed of its beauty, together with other consequences which it is unpleasant even to hear mentioned, let alone to have continually to cope with in stark reality. And what of the suspicious precautions with which he is incessantly guarded, with whomsoever he associates, the unseasonable fulsome compliments to which he has to listen, alternating with reproaches which when uttered in soberness are hard to endure, but coming from one in his cups, in language of unlimited, undisguised coarseness, are both intolerable and disgusting?

To continue, if while his love lasts he is harmful and offensive, in later days, when it is spent, he will show his bad faith. He was lavish with promises, interspersed among his vows and entreaties, regarding those later days, contriving with some difficulty to secure his partner's endurance of an intercourse which even then was burdensome, by holding out hopes of benefits to come. But when the time comes for fulfilling the promises, a new authority takes the place within him of the former ruler; love and passion are replaced by wisdom and temperance; he has become a different person. But the boy does not realize it, and demands a return for what he gave in the past, reminding him of what had been done and said, as though he were talking to the same person, while the erstwhile lover, who has now acquired wisdom and temperance, cannot for very shame bring himself to declare that he has become a new man, nor yet see his way to redeeming the solemn assurances and promises made under the old regime of folly; he fears that if he were to go on acting as before he would revert to his old character, his former self. So he runs away from his obligations as one compelled to default, it's « tails » this time instead of « heads, » and he has to turn tail and rush away. But the boy must needs run after him, crying indignantly to high heaven, though from start to finish he has never understood that he ought not to have yielded to a lover inevitably devoid of reason, but far rather to one possessed of reason and not in love. He should have known that the wrong choice must mean surrendering himself to a faithless, peevish,

Photo: courtesy of Octavo

ΦΑΙΔΡΟΣ

A Search for the Typographic Form of Plato's *Phaedrus*



Socrates: Where do you come from, Phaedrus my friend, and where are you going?
 Phaedrus: I've been with Lyman, Socrates, the son of Cephalus, and I'm off for a walk outside the wall after a long morning's writing there. On the instructions of our common friend Acumenus I take my walk on the open roads, he tells me that it more integrating than walking in the colonnades.
 Socrates: You're right in saying so. But Lyman, I take it, was in town.
 Phaedrus: Yes, staying with Epiclesus, in that house where Merychus used to live, close to the temple of Olympian Zeus.
 Socrates: Well, how were you occupied? No doubt Lyman was giving the company a lesson of eloquence.
 Phaedrus: I'll tell you, if you can spare time to come along with me and listen.
 Socrates: What? Don't you realize that I should account it, in Pindar's words, "above all business" to hear how you and Lyman passed your time?
 Phaedrus: Lead on then.
 Socrates: Please tell me.
 Phaedrus: As a matter of fact the topic is appropriate for your ears, Socrates, for the discussion that engaged us may be said to have concerned love. Lyman, you must know, has described how a handsome boy was tempted, but not by a lover—that's the clever part of it. He maintains that narrative should be to one who is not to love rather than to one who is.
 Socrates: Splendid! I wish he would add that it should be to a poor man rather than a rich one, an elderly man rather than a young one, and, in general, to ordinary folk like myself. What an attractive democratic theory that would be! However, I'm so eager to hear about it that I won't leave you even if you extend your walk as far as Merges, up to the wall and back again as recommended by Heracles.
 Phaedrus: What do you mean, my good man? Do you...

Fig. 7a, 7b Retrogressive experiments following Fig. 7.

6 July 1974

Dear Chuck,
 Again the grand delay on my part. Your healthy reply to my *Phaedrus* waited so long on my desk. You completely caught the mood of the Greek letters and the rich references to the *Phi*.
 Now to the never-ending *Phaedrus* mystery. I have made a radical change from the preceding page experiments. Enclosed is a rough proof of the first two pages (Fig. 8). By making the separation I have caused myself more problems in the spatial arrangements for each speaker. But by breaking them apart, I have achieved a richer page (you can almost hear their voices).
 What is your first reaction, Chuck? Each page will have a different cluster of lines—sometimes jerky and uneven, like speech, and at other moments dense and commanding. It will make the book twice the size of the original, but I'm sure it will allow the pages to have a totally fresh and classical spirit. I won't defend it at this time, but merely want your feelings and thoughts. It shifts our attention towards a lucid format, and since this dialogue contains three main speeches—one for Phaedrus and two for Socrates—it will give the overall pages a true rhythmic texture.
 with warm regards,
 Jack

6 August 1974

Dear Jack,
 I'm taking some time off from a busy day to write about the *Phaedrus*. It's clear that I've got several busy days ahead, so better to write now than to delay later.
 A good friend and philosopher, Kate Croughan, visited Portland, and we spent a day talking about *Phaedrus*. I had read Hackforth's translation and she Jowett.
 This last version (Fig. 8), the two-page separation, made it obvious to me that the typography has gone beyond the standard aesthetic canons, though they themselves are difficult enough to achieve, and must be approaching the heart of this specific dialogue.
 One gets lost in the dialogue and may lose sight of the printed word. I especially was taken with the passage comparing knowledge with seeds and the soul with a garden. And in a very different way, intrigued with the description of the soul's composition and the reasons by which one soul is attracted to another.
 The questions you raise take us to that realm where very simple things must be thought very carefully in very subtle ways.
 We hear sounds, we see mouths move,

Socrates: Where do you come from, Phaedrus my friend, and where are you going?
 Phaedrus: I've been with Lyman, Socrates, the son of Cephalus, and I'm off for a walk outside the wall after a long morning's writing there. On the instructions of our common friend Acumenus I take my walk on the open roads, he tells me that it more integrating than walking in the colonnades.
 Socrates: You're right in saying so. But Lyman, I take it, was in town.
 Phaedrus: Yes, staying with Epiclesus, in that house where Merychus used to live, close to the temple of Olympian Zeus.
 Socrates: Well, how were you occupied? No doubt Lyman was giving the company a lesson of eloquence.
 Phaedrus: I'll tell you, if you can spare time to come along with me and listen.
 Socrates: What? Don't you realize that I should account it, in Pindar's words, "above all business" to hear how you and Lyman passed your time?
 Phaedrus: Lead on then.
 Socrates: Please tell me.
 Phaedrus: As a matter of fact the topic is appropriate for your ears, Socrates, for the discussion that engaged us may be said to have concerned love. Lyman, you must know, has described how a handsome boy was tempted, but not by a lover—that's the clever part of it. He maintains that narrative should be to one who is not to love rather than to one who is.
 Socrates: Splendid! I wish he would add that it should be to a poor man rather than a rich one, an elderly man rather than a young one, and, in general, to ordinary folk like myself. What an attractive democratic theory that would be! However, I'm so eager to hear about it that I won't leave you even if you extend your walk as far as Merges, up to the wall and back again as recommended by Heracles.

Fig. 8. Seventh version, 1974.

we read writing, we experience meanings, make words, and, taking a sighting on sound and vision to know how they compare, we perceive that the kinds of relationships which link the spoken word to the written word are themselves related to the kinds of relationships which link words to thoughts, and the thoughts of one person to the thoughts of another.
 So, never leaving behind the actual sounds and the actual sensations of speech, we may nevertheless contemplate that realm of symmetries, of relations too simple for words, and too complex, and know that these things, though not divorced from us, yet have their own life.
 Let me mention the myth of the cicadas and the muses. At first, we might think that the soul, or the psyche, is made of something, like a layer cake, or some other structure or substance.
 Yet when one looks inward to discern the composition, it is always very elusive. Like a cricket chorus. As we approach a given source of song, that insect shuts up, but all others keep on. It is not any one voice, nor the exact character of them, but their relationship, their harmonies, that determines the

chorus. And so we might guess that words and thoughts, and thoughts and thoughts, and ideas and things beyond, are more like a chorus than a layer cake.
 The words are one part of the chorus; the writing is another. Within the stream of words there are depictions of the relationship between speakers, and thus within the path of writing there may be depictions of the relationship between speakers. But these depictions are not isomorphic. The asymmetries become important, and the relations between them must be discerned so that they may also be arranged in a system of dissonances.
 As for the actual sample (Fig. 8), I have only a few comments.
 I'm a bit worried about the eye's leap across the gutter. It seems very easy to learn, but it's not the kind of acrobatics we learn to use in reading. More like looking at a painting. An extremely orderly painting.
 Can you embody in the arrangement some way of gently teaching the reader how to interpret/see it? Is the gutter margin thus too wide? Are short leaps better than long? How short? How long?

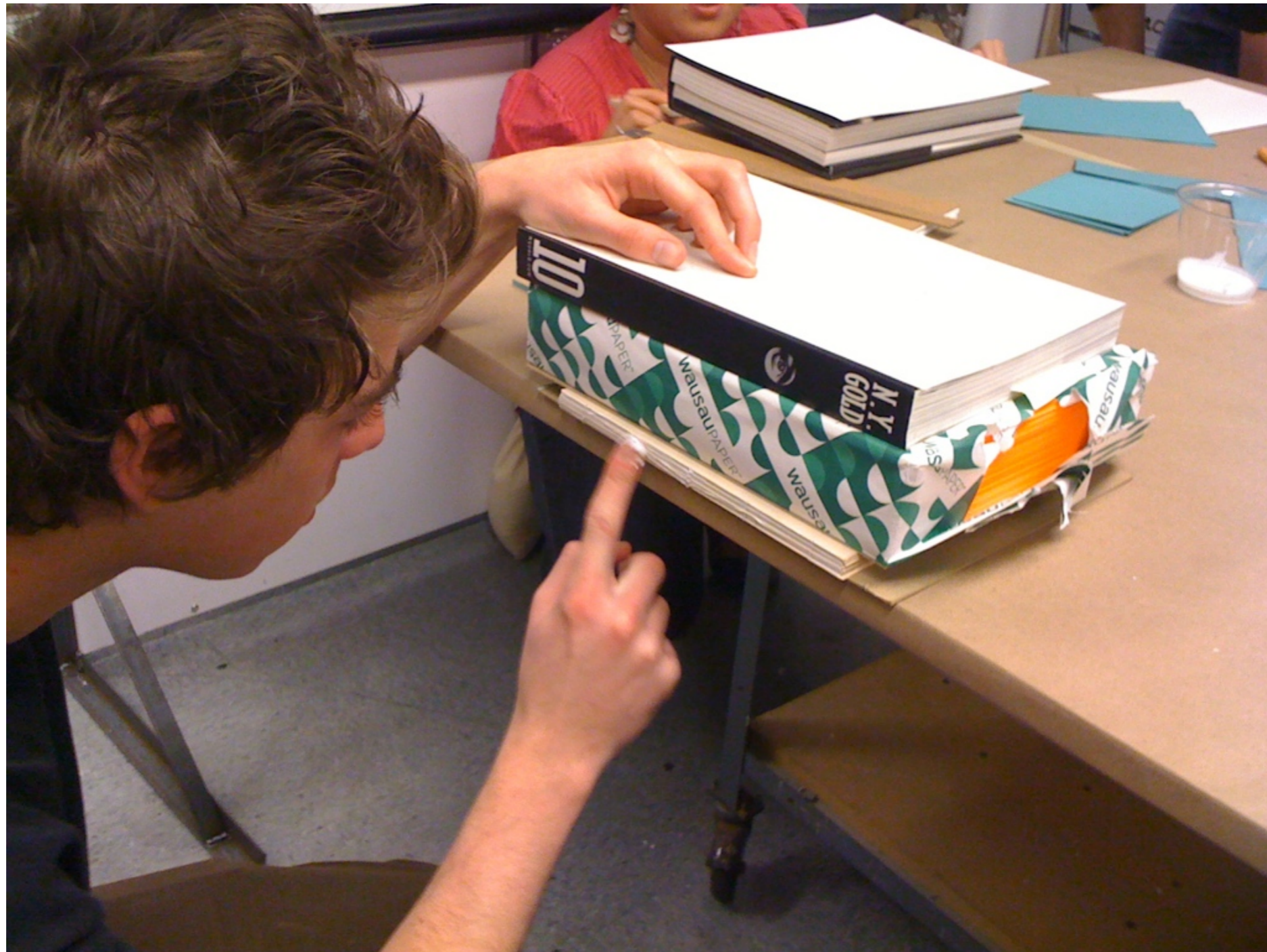
11. REMEMBER:

1. A physical, printed book engages the visual-spatial component of working memory.
2. A printed book, like a city, can generate a meaningful mental image for remembering and orientation.

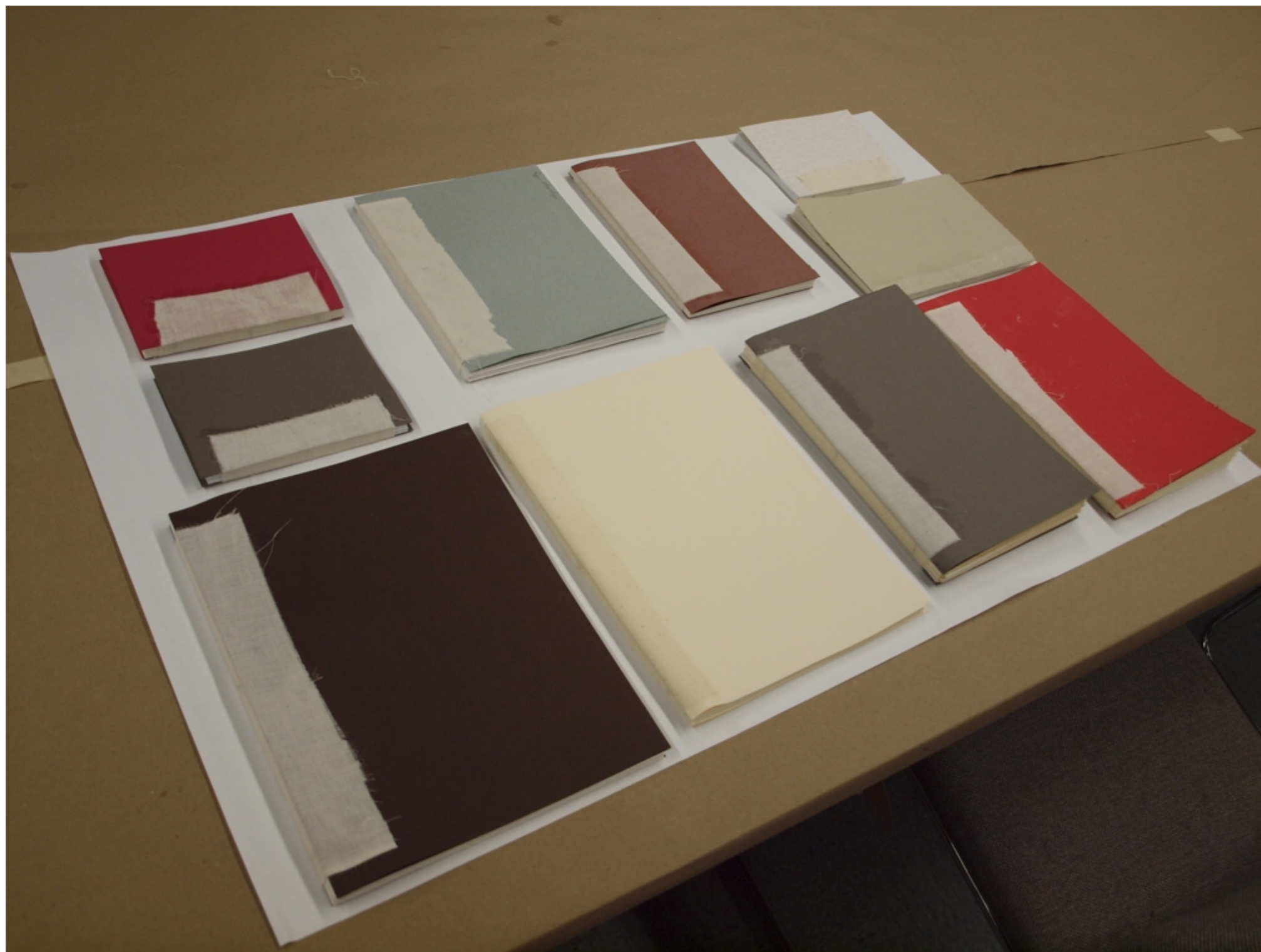
12. MAKING AND READING BOOKS













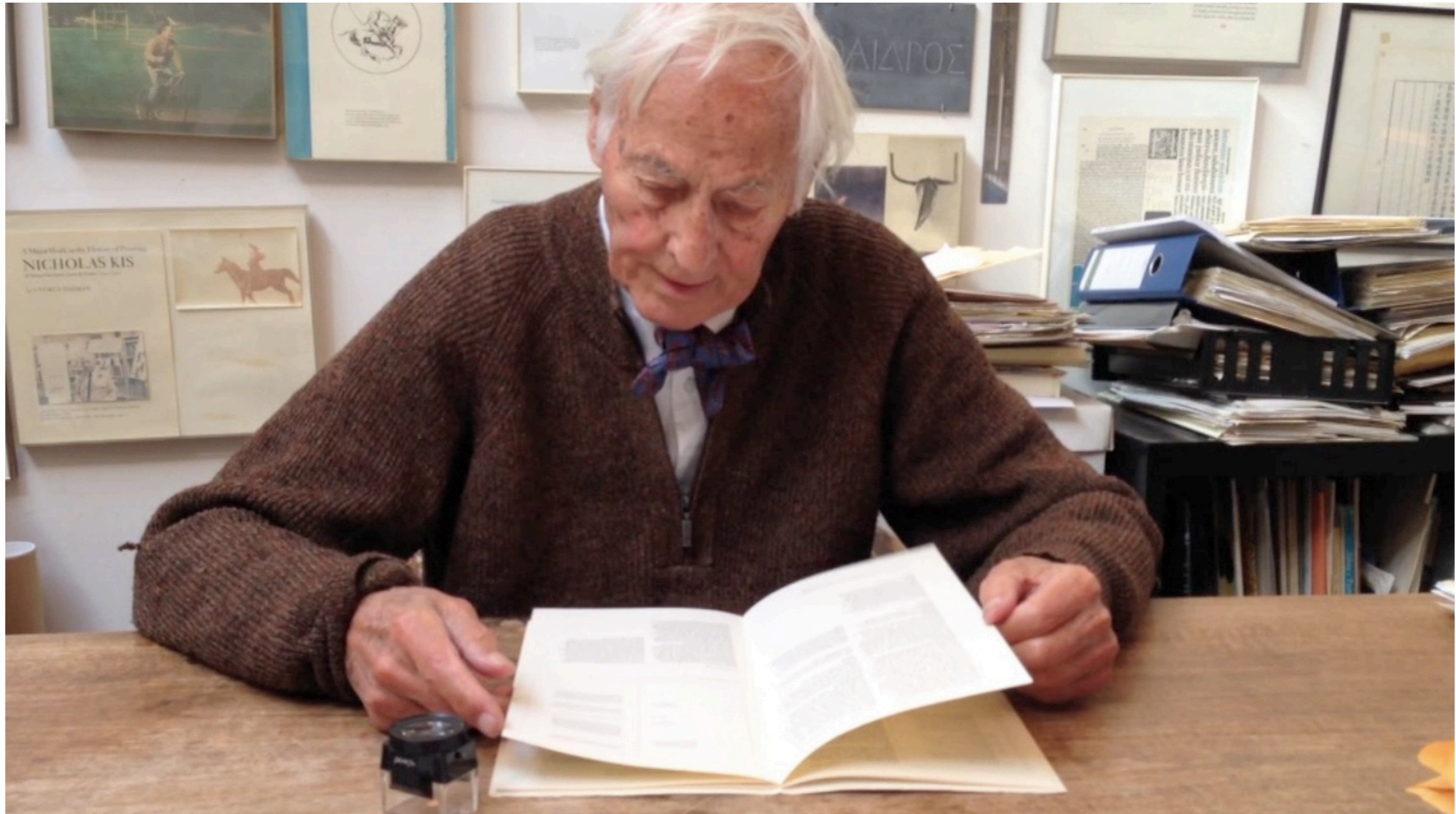




J.F.

J.W.S.

P.T.



Click the image to see a 1-minute video of Jack Stauffacher.

THANK YOU!

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JACK STAUFFACHER – THE GREENWOOD PRESS, SAN FRANCISCO

JIM FARIS – SKYPE

THE IMAGE OF THE BOOK

WHAT COGNITIVE PSYCHOLOGY TELLS US
ABOUT THE INTERPLAY OF THE VISUAL AND AURAL
WHEN EXPERIENCING A PRINTED BOOK

SPECIAL THANKS: PROF. E.D. HIRSCH, JR. – UNIVERSITY OF VIRGINIA, USA

PDF of slides, handout, and references

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slide