THE BOOK AS PHYSICAL OBJECT
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TYPES OF BOOKS
I pick up a book. I am holding a bound manuscript. It might be a western codex, an oriental fold book, a fan, or a Venetian blind.

Keith Smith, Book 27, 1973: a western codex. 29 x 29 x 1 cm.

Keith Smith, Snow Job, Book 115, 1986: an oriental fold book, edition of 300. Poem of a spring thaw is really speaking about a nuclear meltdown. 16 x 11.5 x 2 cm.

These are the type of books used by various cultures. All are a set of sheets (paper, wood, ivory, cloth, etc.) strung or bound together. The type of book is determined by how it is bound: at one or two points, along one or more edges.
Joan Lyons, *Untitled*, 1975: a fan. 17.5 x 20.5 x 1 cm.

Joan Lyons, *Untitled*, 1975: a blind (or Venetian blind). 17.5 x 20.5 x 1 cm.

**GETTING ACQUAINTED WITH THE BOOK**

The best approach to gain a sense of the book is to become acquainted with the book as physical object. Pick up a book, hold it. Feel it. Look at it, then examine it, not routinely or mechanically by habit but make a conscious effort to see at every step in the process, every movement of the eyes or hands.

I often pick up a book and go through this process. I use a blank book so that I am not seduced by this picture or distracted by that composition or those words. I make note of my findings—the elaborate meanderings of my imagination and specific written lists of what to investigate on a physical level in books-as-sketches. I have learned not to take anything for granted. The procedure I am describing can't be learned by reading. It must be experienced. And so I examine a book.

*Does a book have to be bound? If it weren't, it would be a portfolio or a stack. Is a stack an unbound book?*
Kevin Osborn, Vector Ray, 1987. With polished metal covers and inlaid marbles, this fan is offset in an edition of 25. A ribbon is strung through the book. 48 x 5 x 4.5 cm.

Anonymous, untitled nineteenth century fan from Bali. Covers are incised wood, the pages are palm leaves. 25 x 3 cm.

The oriental fold book is created by folding a long sheet of paper alternately back and forth on itself. There is no sewing or gluing. The binding is mechanical. If an imaged book of this type were not folded, it would be a mural, not a book. However, if that mural is stored by rolling, it is a scroll. Is a scroll a book?

If I set out to make a photograph that is a foot tall and 10 feet long, the result is a single picture. If I roll it up to store it, is it then a scroll, or does it have to be conceived as a scroll? Does convenient storage constitute any book?
Someone takes a large sheet of blank paper, wads it up, then throws it in a kitchen trash compactor. It is then compressed flat. The paper has been “folded” by a machine. Is it then an oriental fold book, or is it trash?

It depends upon intention. If that person declares it a book, it is a book! If they do not, it is not. Definitions are not ageless laws, but current understanding. They grow with usage through insight and error. We extend our knowledge, as well as our false assumptions, and both of these change the way we see, the way we think. Our definitions evolve; they are not cut in stone, like the rigidity of religion.

The theologian, politician or athlete can justly ask, “How can you play fairly when you change the rules in the middle of the game?” But in science and art one must play by the rules as they currently stand. Rules are constantly changing. When a new theory is proven in science, all laws previously assumed which conflict with the latest belief must be thrown out. Laws must be re-written to conform with the new theory. A map of the flat earth is useless once our planet is perceived as a globe.

If a book is bound, what are the possibilities?

Must a book be bound completely across one edge? Bound at one point, it is a fan; bound at two, a blind.

Not necessarily. A fan can have a compound binding. With one sheet in common, a fan can be bound at each end. Two volumes can be separate, obliquely related, or pairs of pages can complete across tangential pages:

![Diagram of tangential pages]

Must a codex be bound on only one side?

If a codex is bound back to back, it is a dos-à-dos; if it is bound on two opposing sides in the French Doors format, it might have sheets interwoven or tangent, allowing permutations in viewing order and contextual reference. Or, two separate, and separately bound books can be conceived to be displayed tangentially to allow reciprocation.
Two codices bound as French Doors format, and as a dos-à-dos.

If a codex is bound on all four sides, how does the binding determine the imagery?

Scott McCauley, *Untitled*, 1983. Fold book bound on four sides. When this book is "closed" (pleats compressed) the printed image dominates. When the book is extended, the image breaks up as the form, space and shadows become prevalent. 32 x 32 x 2 cm.

If I'm binding a fan, a Venetian blind or a codex, how many sheets must be bound before it is considered a book? Two? Three? If I fold a sheet of paper once, is the resulting folio an oriental fold book?

If I fold a sheet twice, is it a dos-à-dos?

If a broadside is folded into quarters and then eighths, is it then a book instead of a poster?

I ask questions to broaden my knowledge of traditional concepts, not to hold them as dogma, but as a foundation from which I can depart. Definitions are not an end, but a springboard. Otherwise, they stifle the expansion of ideas. Without questioning, I would tend to repeat the same solutions, relying on simulated vision and residual concepts.
Keith Smith, Book 141, 1989. This fold book does not open to a straight line, but folds across a row, then down, then reverses back across and down in a snake fashion. The format was devised by Scott McCarney, who originally called it *boustrophedon* (as the ox plows). Now he refers to it as the *Snake Format*.

19 x 19 x 5 cm. Opens to 96 cm. square.
The French Door format is an unusual manner of relating two books, but the dos-à-dos is traditional. Two codices are bound with a back cover in common. One volume is read, turned over to the front cover of the other. Two related volumes, such as the Iliad and the Odyssey are appropriately bound in this manner:

The book is a physical object. The hand-held book demands touching. Effort must be taken to view it. A print on the wall under glass has no volume, no shadows, little or no texture. It is not tangible. It is almost non-physical. To the extent it can be seen, it is physical, but it is closer to a conceptual idea, a vision. Whereas a book is three dimensional. It has volume (space), it is a volume (object), and some books emit volume (sound).

And so I think of volume, of sound and pictures in space. I think of implied sound in pictures. One of my favorite painters is Giorgio de Chirico. Many times I have sat in the Art Institute of Chicago and contemplated the potential sounds depicted in his 1914 painting The Philosopher's Conquest. A steam locomotive rushes along. On a tower to the left are flags flapping in the breeze. A puff of wind is in the sails of a ship on the horizon. Quieter, a large clock is ever at 1:28 in the afternoon. I hear tick-tock, tick tock as my eyes lower to the protruding shadow of two figures. I imagine an even softer sound of muffled conversation. In the foreground is an object emitting no sound at present, but it has the potential of the loudest sound of all. It is a cannon.
Volume... There is the space within a picture, but this text will deal with the structured space *between* pictures and pages. The hand-held book does not have the disadvantage of wall display, which can be seen from too close, or too far away. The book is "foolproof" to a certain degree. Since it is bound, the order of viewing is maintained. The distance of viewing is set between about fourteen inches and perhaps twenty five inches, because the physical length of the viewer’s arm controls the distance.

The book, as object, is intimate, it insists on a one-to-one confrontation: the bookmaker and viewer.

Yet, if it is mass-produced, the book can reach a greater audience than an exhibit. It is not relegated to a one month spread of time or a single event. A book can be seen anywhere, at any time, in any situation, and can be returned to time and again. A mass produced book with its far reaching capabilities still remains a one to one experience.

The book-as-object is compact. Covers allow for no mats, and pictures can be printed to the edge, and on both sides of fairly thin paper. To paraphrase Gary Frost, of Booklab, the picture field represented by the 1992 Manhattan telephone directory white pages is a picture 10 by 155 feet.

Much can be perceived about its potential by just holding a book and thinking. Now, open it. The blank pages at the beginning of a codex are called end-sheets. Bookmakers are fascinated with paper; end-sheets allow them to use special papers that are too expensive or not appropriate for the text block.

Turning the end-sheets serves a function: to clear the mind before reading. The function of the end-sheets parallels that of a mat on a single print. I spend time thinking about the physical act of turning the page. Understanding what transpires as a result of turning the page will lead to concepts of how to image the book.

Binding should not be an afterthought, or no thought. If I structure a book as a loop, because it contains cyclical ideas, the fan is an appropriate type of book because it opens with circular movement, to a circular form.

A Venetian blind would be inappropriate, not capable of reinforcing the cyclical motif. The western codex can be used, but it is not visually cyclical, as in the case of the fan. The codex literally can be cyclical in format, using spiral binding and a specific display.

The non-spiral bound, linear codex can be an implied cycle by order of presentation of the pictures:

- The first picture can be removed and placed after the "final" picture.
- Repetition of the first page at the end, as the final page.
The oriental fold book would not lend itself easily to a cyclical motif if viewed fully extended—not only the type of book, but display is critical.

*Fold book as an implied cycle:* If the fold book is viewed page by page in the manner of a codex, it is cyclical, as the (non-spiral bound) codex. (It could be an implied cycle in the manner of a codex).

*Fold book as literally a cycle:* The fold book physically can be a cycle. Usually the fold book is not imaged on the back; it is a one-sided book. To make this book literally cyclical, I would continue on the back side, reading the other side of the folded paper, in codex fashion, until I returned to the front and the beginning.

A cycle does not have the concept of a "beginning" or "end." The fold book as implied cycle is more a cycle than the fold book as literal cycle. This is because I have not fully resolved the concept of no beginning or end. I must lessen the impact of the two ends of the folded sheet of paper:
- I could remove the stiff covers, so not to suggest an ending, and to give less emphasis to the one-sided characteristic, stressing the loop.
- I could start the first page abruptly, in the midst of action rather than as a title page or "first" picture. I could place the title page in the middle of the book so it did not begin at the front.
- Or, better, I could plan the book without a beginning, or end. The action would start abruptly and continue to the "end" without a rallentando. The "last" picture would be continued by the "first" picture.

A title page would interrupt the cycle causing a beginning. To negate this, I would place the title and other text in a line running throughout all the pages, not starting at the beginning of a sentence.

The type of book cannot be arbitrarily chosen and the contents stuck into it. The binding and display will alter the contents and one type of book will allow a better development of an idea than another.

**TURNING THE PAGE**
- It is a physical movement.
- Turning pages reveals the order of viewing.
- It places the book into time.
• The book is a single experience, a compound picture of the many separate sheets.
• In the codex, this single experience is revealed in slivers. The total is perceived and exists only as retention of afterimage in the mind. The codex is never seen at once.
• Turning the page suggests a rate of turning. Trying to make every picture equally strong would be like reading with no inflection.
• TRANSPARENCY: If the pages are not paper, but transparencies (film-positives), turning the page does many things.

Keith Smith, Book 2, A Change In Dimension, 1967. One-of-a-kind. A transparent page casts a shadow which can incorporate with a picture on the following page. This transient collage exists only during the act of turning the page. 28 x 36 cm.

As the page is lifted on the right-hand side, the cast shadow appears, in focus, then goes out of focus as the page is turned, returning to focus on the left-hand side as the page is lowered in place. The cast shadow is part of the composition, imagery, experience. It exaggerates the idea that each page of a codex exists in now-time.

If the book has several transparencies in succession, as the pages are turned, the imagery builds up on the left hand side as it breaks down on the right. This need not be symmetrical repetition. The opaque pages at the beginning and end of the book/chapter can have different imagery to create a different composite on the left than on the right hand side. If several transparencies are used in succession, either I will be able to see the total composite of overlays or it will become so complex and dense that I will not. Either can be exploited to the book format's potential.
By printing locally rather than full frame on each transparency, retaining mostly clear film, many sheets of film can build up to a composite image with little or no overlapping of forms. The individual page is no longer a decisive moment, full-frame image. It is a page which cannot stand on its own, cannot be removed from the book to be matted and placed on a wall. The page is not the picture. It is now subordinate, totally dependent on and integrated as part of the total book. These individual sheets lose their importance in inverse proportion to the importance gained by the book/chapter as a whole. I think about how this concept can be used with opaque paper pages. Local printing on pages of uniform size, and printing across the stair-stepping surface of variable dimensional pages.

By printing full frame the transparencies exist for many pages with much elaboration, the density of images will create almost a solid black composite. As the viewer turns the pages, on the left side will be one picture, then a composite of two, three. As the turning of the pages builds the number of multiple images, the complexity will soon destroy the left side as well as the right.

In the middle of this succession of pages, both sides of the book will be black. The center pages will be seen clearly only during the act of turning the page. While they are up in the air the viewer can see the individual sheet/image. The transparency imitates a paper print. Thus, the core of the book “exists” only during the process of viewing the book. Towards the end of the book, just as at the beginning, the left-hand side increases, the complexity on the right hand side diminishes, to five, four, three, then two overlappings, then one page/image, creating a cycle, another form of transition.

In thinking about this concept, I try to relate it to similar structures so that my imagination can elaborate more easily. Building up layers of transparent pages on the left side of the gutter, while turning pages reduces the layers on the right, is a matter of balance.
I look up balance in the dictionary. I think about balance, counter-balance. As a symbol, I see the scales of justice. Further in the definition I come across accounting. Debits and credits are a balancing act. However, none of the definitions stimulate my imagination. I look elsewhere, but without success. Frustrated, I pick up my blank book. I return to meditating on the idea of turning pages for possibilities.

Turning the page, turning pages proves mechanical. Rather than waste more time, I recognize I am at a dead end. I start to work on another book, leaving this one on hold for a day, a week, or maybe five years until I know how to proceed.

This is how I work. I always have one to two dozen books in progress. When insight comes, I work on the appropriate book for as long as I am progressing. If my mind is scattered, I cut book boards, buy supplies and do the little things which do not require much critical thought. When I find I am depressed, rather than allow my mood shifts to immobilize me, I channel those feelings into an appropriate book. My work becomes my cure. When I was a student, Sonia Sheridan gave invaluable advice, "Put your work into everything, and everything into your work." The artist does not sit until inspired to make a masterpiece, and art does not have to be about monumental events.
I return to thinking of transparencies. My breakthrough comes while listening to the music of Philip Glass and, especially, Steve Reich. I learn how to utilize transparent pages conceptually in thinking of musical structure as motif.

Physically, the transparencies can be a chapter in the book, interrupted by an opaque paper page before the next group of transparencies. In effect, each chapter is not a chapter, but one compound picture. If the codex has four chapters, eight transparencies each, instead of thirty-two pictures, there are four compound pictures. Sometimes the paper page dividing the chapters may have a window allowing a preview of the next chapter. More holes reveal more of the book. Removing all opaque pages and placing glass covers on the codex makes it literally a one-picture book; I don’t even have to open the covers to view the book. This is complete transition, returning to the single picture format. This book permits examination through pages-as-layers, going from the objects depicted closest to the viewer back through space to the horizon. My definition of book is further expanded.

TRANSLUCENCY: If I use translucent pages, an echo exists on the back as it is turned. A preview of the following page/s can be seen. This lends itself to ideas of afterimage, déjà vu, multiple imagery, gradation of tones and disintegration of information over a number of pages. Pictures evolve and spatially emerge, like coming out of a fog, on the right hand side, while receding into a darkening depth on the left over a period of time during the act of turning the pages. It is the process of turning pages that activates the very idea of translucency.

THE PROCESS OF TURNING PAGES

HOW to SEE a BOOK: My approach to seeing a book for the first time is to go through the entire book at least two or three times at one sitting. The first time is at a fast pace, with the other viewings successively slower, having been modified by the previous viewing. The book on the first viewing, theoretically, could be upside down. I am not necessarily looking at subject matter or reading any words, but seeing the overall layout,
the composition of the total book, as well as the individual pictures. I am picking up the tone or mood. The second viewing is less general. I do not turn the pages at a constant pace, as previously, but create my own pacing by dwelling on things that either interest me or that I do not comprehend. At this viewing, I become acquainted with the subject matter which was only superficially seen on first viewing, and I pick up on motifs, symbolism, subtleties. I am pleased if the book requires several viewings. It then exists on more than one or two levels. The book invites the viewer back. It is exciting to pick up on nuances. On the third viewing I check to see if my previous pacing is altered by what I perceive to be the bookmaker's implied pacing.

*CARE in VIEWING a BOOK*: Holding near the gutter and lifting the page will cause stress and very likely kink the paper. To anyone who loves paper, kinks are upsetting. The paper loses its freshness. Bent surfaces catch raking light, casting shadows which distract from the image.

The page should not be turned by placing the index finger under the upper right-hand corner of the recto, then slipping the hand to the verso and palm-ing it while turning the page. The entire verso receives an application of oil from the hand.

The extreme vertical edge of the recto should be lifted and placed to the extreme left. The area touched should be varied with each viewing to dissipate wear.

*Hand-held* refers to format size and that the book is experienced through touch. It does not refer to position of viewing. The book should be placed on a table and opened, allowing both covers to rest on the table, if the binding permits. After viewing, the book should not be pushed aside, as friction can mar the back cover.

The physical object has to be handled to be seen; it has to be stored. Care requires awareness. If books are abused, it is because 99% of what we read or see is mass-produced, inexpensive transients: the newspaper, magazines, paperback books, television.

*ACCUMULATED FRAGMENTS*: All visual books are conceptually one-pic-ture books in as much as the total, not the individual drawings or photographs, is of major importance. Each page compounds time, memory and specific images to create one compound concept.

What I have said about a book containing transparencies is true to a large extent for a book of opaque paper pages as well. Memory persists. Animation is based on this. Because of the persistence of memory and the reten-
tion of afterimage, a previous page can be incorporated into the imagery of the following page, or even a succession of pages.

Pages 63, 65, 67 and 69 illustrate separate opaque paper pages. Imagery on these rectos builds to one, implied, compound picture, which is seen only in the mind, the manner in which any codex experience comes together.

It is one thing to relate two pictures on facing pages. It is another to relate a recto to its verso, and still another to relate one page to another specific image several pages hence. Conceptually, this is done by means of creating a series or a sequence. This is reinforced visually.

One way I like to structure is to make a compound picture which accumulates over several successive opaque paper pages. Fragments are pieced together much as the separate runs of colors build up to form one picture in printmaking. To make this procedure a book experience, I present each stage on separate pages. The "print" comes together only in the viewer's mind. This is the manner in which any codex is read. Unlike the fan, blind and fold book, in the codex the total is seen after the fact.
In structuring a book, or more likely, only a chapter, as accumulated fragments, I use only the rectos, leaving the versos blank. This reinforces the idea of an accumulated compound image, since the repetition occurs in identically the same location as the pages are turned: A form in the lower right corner of page 63 may be only a light tone. Page 65, that same shape may be a black and white texture. Context suggests the two should be incorporated in the mind; persistence of memory urges it.

On one page that identical shape could present the subject matter. Then, the following two rectos could contain local colors which are in register with the previous shape, texture and subject matter. If one shape is blue, the other yellow, would you “see” green? If these opaque pages were transparent, the total picture would come together, seen at once.

Opaque pages create the essence of viewing a codex. Structuring with accumulated fragments exaggerates this inherent character of the codex. Building with fragments is the key to composing any book. A book is not a concern for a bunch of independent pictures capable of being viewed on a museum wall. It is not dealing with islands, but fragments.

After the first eleven pages as a chapter of piecing together fragments, I might have a chapter which treats each page as a complete picture. This would alter the pacing, speeding up the action while necessarily slowing down the rate of turning pages. In addition, two-page spreads could now be used. Chapter three might return to accumulated fragments, or might utilize single framing building up now by means of animation. Chapter four might sum up the book. The four chapters would relate in structure to the four movements of a symphony: statement of theme, variation, recapitulation and finale.

To read the individual pages of the accumulated fragments is only part of the story. As in any number of pages designed as a unit, the total is more than the sum of its parts. One transparent color over another yields a third color. One texture superimposed over a second makes a third. The illustrated text on pages 63, 65, 67, and 69, read in succession says one thing. When the four pages are consolidated to a single image, the text reads differently. Even the words are not the same:

SO now is seen tangent with ME to read as SOME.
START combines with LED to become STARTLED.

In conceiving any book it is worth repeating,
“A book is more than the sum of its parts”