Portable Document Formats

At the beginning of the 20th-century, Ford Motor Company established the first widely-adopted model of factory production. Breaking down the manufacture of a Model T automobile into its constituent processes and assigning these to a sequence of workers and inventories, significant efficiencies could be realized. This Assembly-Line approach utilized increasingly specialized skills of each worker on a coordinated production line as the manufactured product proceeded from beginning to end. Large inventories, skilled laborers and extensive capital investment were required. Design revisions were expensive (if not impossible) to implement and the feedback loop with its surrounding economy was largely absent. Complicit with its early-Capitalist context, manufacturing at this scale remained necessarily in the hands of those with the resources to maintain it.

By the mid-1950s, Toyota Motor Corporation of Japan began to explore a more fluid production model. Without the massive warehouse spaces available to store inventories required for an Assembly-Line, Toyota developed the Just-In-Time production model and inverted the stakes of manufacturing. By exploiting and implementing a fluid communications infrastructure along the supply line of parts, manufacturers, labor and customers, Toyota could maintain smaller inventories and make rapid adjustments. A quicker response time was now possible and products could be made when they were needed. Further, tools were standardized — dies could be adjusted by hand and even changes in tooling could be described as a series of written recipes. All of the work could be handled by a wider number of less-specialized workers and design revisions could be made on-the-fly without shutting down production and re-tooling. The result was an immediate surplus of cash (due to reduced inventories) and a sustainable, responsive design and production system — smaller warehouses, faster communications networks, responsive and iterative design revision and products made as they are needed: Just-In-Time.

It isn't difficult to imagine a correspondence between these two models (Assembly-Line, Just-In-Time) and contemporary modes of graphic design production. The prevailing model of professional practice is firmly entrenched in the Fordist Assembly-Line. Writing, design, production, printing and distribution are each handled discretely by specialists as the project proceeds through a chain of command and production. Now, laserprinters, photocopiers, page-layout softwares, cellphones, and word processors are splitting open this model. The project might be written by the publisher who begins a layout and works with the designer who commissions a writer, and sources a printer that will produce fifty copies by Wednesday. Even the software tools' lines of specialty are irrevocably blurred — Microsoft Word has added page layout functions, Quark includes story editing and Adobe Illustrator claims to do almost everything including posting your website. Coincident with these overlapping roles is the opportunity to shift to a Just-In-Time model.

What are the possibilities for a Just-In-Time graphic design? Materials may be produced as they are needed, in the quantities required, on-demand and in a state of constant revision. Roles are blurred and collapsed into one efficient activity. For example, a poster designed on Thursday may be different than one printed next Friday. Two thousand copies of a magazine might be designed, printed and distributed in 24 hours. PDF files could be regenerated every two hours and automatically sent to a large emailing list. And these kinds of unstable forms and fluid production models allow the possibility of creating printed materials and softwares that are responsive, accurate, specific and up-to-date.

Assembly-Line print production model.
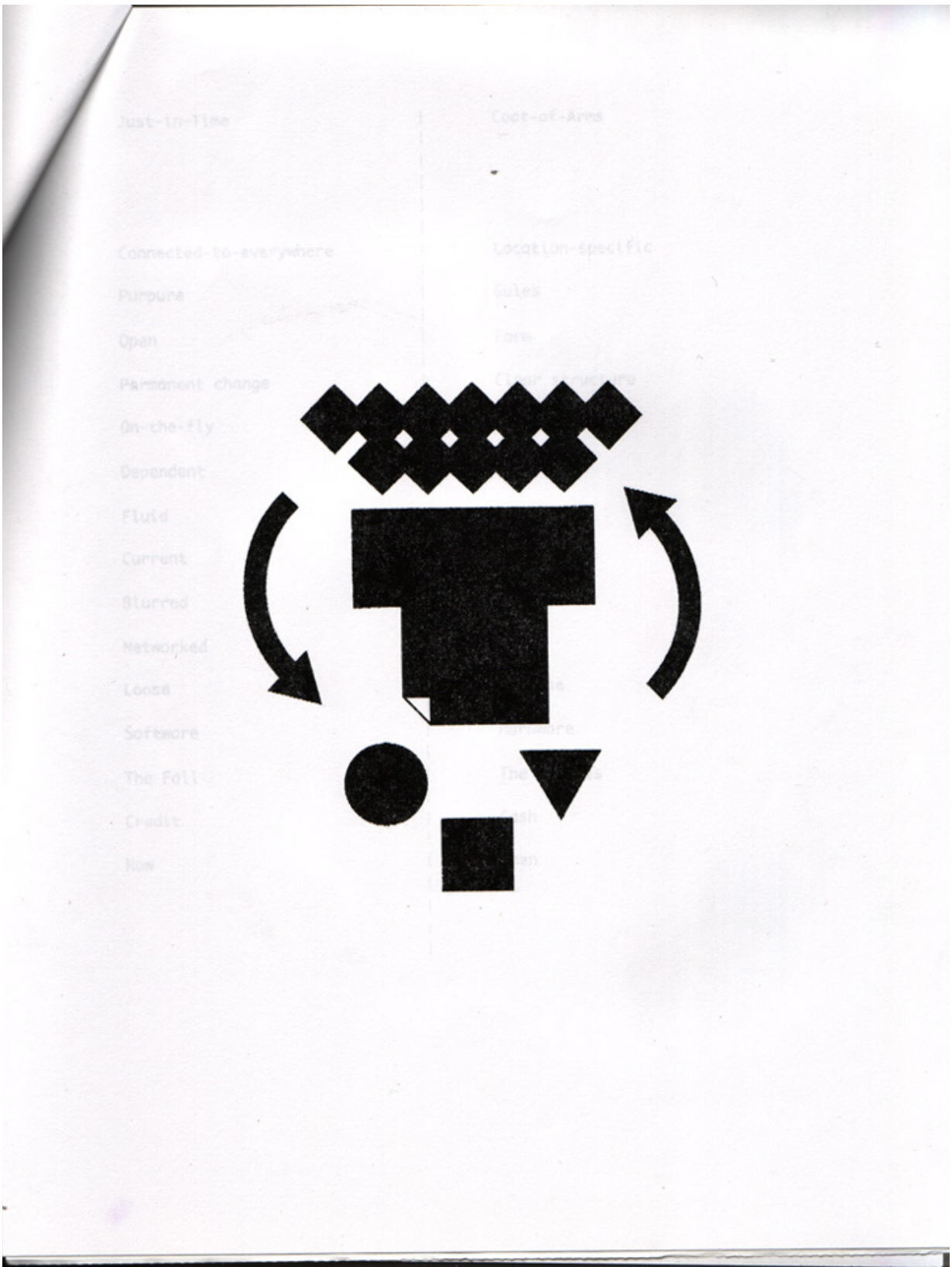
Just-in-Time print production model.

Visual Studies Workshop
Columbia University Graduate School
of Architecture, Planning and Preservation
Thursdays 1:00 – 3:00 pm
David Reinfurt / reinfurt@o-r-g.com
www.portabledocumentformats.org

Class Schedule

February 4	Introduction and Assignment 1
February 11	Initial review and discussion, select groups
	Lecture, Stewart Brand and The Whole Earth Catalog
February 18	Group reviews
February 25	Lecture, Muriel Cooper and the Visible Language Workshop
	Individual reviews
March 4	Assignment 1 due, in-class presentations (1st half)
March 11	Assignment 1 due, in-class presentations (2nd half)
March 18	* No class * Spring break
March 25	Assignment 2 introduced
	"Farewell, Etaoin Shrdlu" film
April 1	Small group reviews / class discussion
April 8	Ant Farm, Inflatables Illustrated video
April 15	Individual reviews
April 22	Small group reviews / class discussion
May 6	Final review with visiting critics

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Assignment 1: That was Then

The book, magazine, newspaper, journal and pamphlet provided important alternative sites for architecture in the twentieth century. Less expensive, quicker and (arguably) simpler to assemble than a "built" argument, architects' publications fill an essential role in articulating practices and developing the discipline. But most importantly, these documents are more portable than buildings — they circulate, are bought and sold, collect in personal archives, join libraries and become tokens of exchange in an always-shifting discourse. In this workshop, I would like to pay particular attention to these patterns of distribution and to examine how they change with shifting modes of production and new publishing models. For example, the shift from metal gravure to the cheaper and quicker photographic offset-printing resulted in a small explosion of little architecture magazines and new models for self-publishing and do-it-yourself distribution. To understand these shifts in context, we will look at some precedents.

Therefore:

> Working together in groups of 4–5 students, choose one architecture publication below to research. Design a short slide show (approximately 30 full-frame slides, no on-screen text) together with a written script which places this publication in its context. When and how was the publication created? Who initiated the project? How was it printed? Who published it? Who read it? Who paid for it? What else was happening in architecture at the time? In the world? How did it fit into an existing discourse? How many copies were printed? What else was published around the same time? How long did it remain in print? How was it produced? Was it sold? Reprinted? Shared? Collected? Please choose from the following list:
>
> Towards a New Architecture, Le Corbusier
> Nine Chains to the Moon, R. Buckminster Fuller
> Team 10 Primer, edited by Alison Smithson
> The Image of the City, Kevin Lynch
> Ekistics, edited by C.A. Doxiadis
> Archigram (series), Peter Cook, David Greene, Michael Webb,
> Warren Chalk, Ron Herron and Dennis Crompton
> Domebook 1 and 2, Lloyd Kahn and others
> A Pattern Language, Christopher Alexander
> Learning from Las Vegas, Robert Venturi and Denise Scott Brown
> Oppositions (series), edited by Peter Eisenman, Kenneth Frampton,
> and Mario Gandelsonas
> Soft Architecture Machines, Nicholas Negroponte
> Delirious New York, Rem Koolhaas
> Pamphlet Architecture (series), Steven Holl and William Stout
> SMLXL, Rem Koolhaas and Bruce Mau
> ANY Magazine, Cynthia Davidson and 2x4

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Assignment 2: This is Now

Benjamin Franklin spent the full year of 1725 typesetting one book as an apprentice to a London printer. Typesetting metal punched letters into slugs and galleys was an extremely labor-intensive task and necessarily gave Franklin an intimate acquaintance with the text that he was setting — *The Religion of Nature Delineated* by William Wollaston. He read it closely while technically producing the printed pages and, as also an ambitious writer, decided that Wollaston's ideas on how religious truth could be gleaned through the careful study of science were not completely right. Benjamin Franklin wanted to correct the gaps in Wollaston's reasoning as he saw it. At the same time as typesetting the principal volume, Benjamin wrote and typeset a slim companion volume called *A Dissertation on Liberty and Necessity, Pleasure and Pain*. Both books were then printed at the same time, although Franklin's pamphlet was produced in a modest run of 125 copies. He only distributed a few of these before, sheepishly, destroying the remainder.

In Assignment 1, you have all spent the first half of the semester researching a significant architecture book from the 20th century. Now, I would like you also to design and produce a companion volume to this original publication. Your companion pamphlet should translate the material that you prepared as a performative slide show into the format of a small run, print-on-demand publication.

Therefore:

> Design, produce and print a Portable Document to act as a companion volume to the book that you examined in Assignment 1.

> Working together in your same groups of 2–5 students, develop a theme and agenda for the publication. Through group editorial meetings and individual design work, narrow down the selection of materials (texts, images, diagrams) to comprise a booklet of approximately 24 pages (this is a guideline, not a requirement.) The format, length and design of your publication should be determined with and by its contents.

> You will produce your booklet using Lulu.com, so please begin by carefully examining their formats and printing requirements. For the final review, please bring at least 2 copies of the final publication as well as the original book or facsimile where possible that began your investigation.

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A Few Starting Places

Lulu, self-publishing, distribution and print-on-demand
http://www.lulu.com

Blurb, print-on-demand and layout software
http://www.blurb.com

BookSurge, print-on-demand from Amazon.com
http://www.booksurge.com

Institute for the Future of the Book
http://www.futureofthebook.org

Dexter Sinister, Just-In-Time Workshop & Occasional Bookstore
http://www.dextersinister.org

"Clip, Stamp, Fold: The Radical Architecture of Little Magazines"
http://storefrontnews.org/exhibitions/upcoming.html

Octavo, digital rare books
http://www.octavo.com

The Complete New Yorker
http://www.thenewyorkerstore.com/books_completenewyorker_middle.asp

Portable Document Format, from Wikipedia, the free encyclopedia
http://en.wikipedia.org/wiki/PDF

"Dispersion" by Seth Price
http://www.distributedhistory.com/dispress.html

"The DEAD MEDIA Project, A Modest Proposal and a Public Appeal"
http://www.deadmedia.org/modest-proposal.html

Project Gutenberg
http://www.gutenberg.org

/ubu Web
http://www.ubu.com

The Internet Archive
http://www.archive.org

Dot Dot Dot, jocuserious fanzine-journal-orphanage based on true stories
http://www.dot-dot-dot.us

Linco Printing, newspaper web- and sheet-fed offset printers
http://www.lincoprinting.com/

"Scan This Book!" by Kevin Kelley in New York Times Magazine
http://portabledocumentformats.org/MEDIA/ScanThisBook.pdf