Fluid Mechanics  A Rapid History of Typography

TERMS AND NAMES YOU SHOULD KNOW

letterpress printing

Johann Gutenberg (c. 1394-1468)

Aldus Manutius (1450-1515)
[with Francesco Griffo, d. 1518]  Barry Deck (b. circa 1960)

Ludovico degli Arrighi  Stephen Farrell (b. 1968)

Giovanni Batista Bodoni (1740-1813)  Edward Fella (b. 1938)

Firmin Didot (1764-1836)  Zuzana Licko (b. 1961)

Beatrice Warde (1900–1969)  Kyle Cooper (b. 1962)

P. Scott Makela (1960–69)  Rebeca Méndez (b. 1962)

Bruce Mau (b. 1959)  Stefan Sagmeister (b. 1962)

readings from Beatrice Warde, “The Crystal Goblet or Printing Should Be Invisible,” 1932

“You have two goblets before you. One is of solid gold, wrought in the most exquisite patterns. The other is of crystal-clear glass, thin as a bubble, and as transparent. Pour and drink; and according to your choice of goblet, I shall know whether or not you are a connoisseur of wine.... [A connoisseur] will choose the crystal, because everything about it is calculated to reveal rather than hide the beautiful thing which it was meant to contain.... you will find that almost all the virtues of the perfect wineglass have a parallel in typography. There is the long, thin stem that obviates fingerprints on the bowl. Why? Because no cloud must come before your eyes and the fiery heart of the liquid. Are not the margins on book pages similarly meant to obviate the necessity of fingerling the type page? Again: the glass is colorless....because the connoisseur judges wine partly by its color and is impatient of anything that alters it. There are a thousand mannerisms in typography that are as impudent and arbitrary as putting port in tumblers of red or green glass!” [56]

“The book typographer has the job of erecting a window between the reader inside the room and the landscape which is the author’s words. He may put up a stained-glass window of marvelous beauty, but a failure as a window; that is, he may use some rich superb type like text gothic that is something to be looked at, but not through. Or he may work with what I call transparent or invisible typography. I have a book at home, of which I have no visual recollection whatever as far as typography goes.... The third type of window is one in which the glass is broken into relatively small leaded planes; and this corresponds to what is called ‘fine printing’ today, in that you are at least conscious that a window is there, and that someone enjoyed building it....” [58]
The Critical Object  *Arts and Crafts to Art Nouveau*

**TERMS AND NAMES YOU SHOULD KNOW**

<table>
<thead>
<tr>
<th>Term</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts and Crafts</td>
<td>Frances MacDonald (1874-1921) and Margaret MacDonald (1865-1933)</td>
</tr>
<tr>
<td>Art Nouveau</td>
<td>Josef Hoffmann (1870-1956)</td>
</tr>
<tr>
<td>Jugendstil, Vienna Secession</td>
<td>Koloman Moser (1868-1828)</td>
</tr>
<tr>
<td>Karl Marx (1818-83)</td>
<td>Otto Wagner (1841-1918)</td>
</tr>
<tr>
<td>William Morris (1834-1896)</td>
<td>Henri van de Velde (1863-1957)</td>
</tr>
<tr>
<td>Aubrey Beardsley (1872-1898)</td>
<td>Will Bradley (1868-1964)</td>
</tr>
<tr>
<td>Charles Rennie Macintosh (1868-1928)</td>
<td></td>
</tr>
</tbody>
</table>

**Karl Marx, “The Fetishism of Commodities and the Secret Thereof,” from Capital, 1867**

“It is as clear as noon-day, that man, by his industry, changes the forms of the materials furnished by Nature, in such a way as to make them useful to him. The form of wood, for instance, is altered, by making a table out of it. Yet, for all that, the table continues to be that common, every-day thing, wood. But, as soon as it steps forth as a commodity, it is changed into something transcendent. It not only stands with its feet on the ground, but, in relation to all other commodities, it stands on its head, and evolves out of its wooden brain grotesque ideas, far more wonderful than ‘table-turning’ ever was.”

“A commodity is...a mysterious thing, simply because in it, the social character of men’s labour appears to them as an objective character stamped upon the product of that labour....There is a definite social relation between men, that assumes, in their eyes, the fantastic form of a relation between things....This I call the Fetishism which attaches itself to the products of labour, so soon as they are produced as commodities, and which is therefore inseparable from the production of commodities.”

**William Morris, “Art Under Plutocracy,” 1884.**

During the Middle Ages, “the unit of labour was an intelligent man. Under this system of handiwork no great pressure of speed was put on a man’s work, but he was allowed to carry it through leisurely and thoughtfully; it used the whole of a man for the production of a piece of goods, and not small portions of many men; it developed the workman’s whole intelligence according to his capacity...in short, it did not submit the hand and soul of the workman to the necessities of the competitive market, but allowed them freedom for due human development.” [69]

“It is this superstition of commerce being an end in itself, of man being made for commerce, not commerce for man, of which art has sickened; not of the accidental appliances which that superstition when put in practice has brought to its aid; machines and railways and the like, which do now verily control us all, might have been controlled by us, if we had not been resolute to seek profit and occupation at the cost of establishing for a time that corrupt and degrading anarchy which has usurped the name of Society.” [74]
William Morris, “The Ideal Book,” 1893

“Well, I lay it down, first, that a book quite unornamented can look actually and positively beautiful, and not merely un-ugly, if it be, so to say, architecturally good...”

“letters should be designed by an artist, not an engineer.... The sweltering hideousness of the Bodoni letter, the most illegible type that was ever cut, with its preposterous thick and thins, has been mostly relegated to works that do not profess anything but the baldest utilitarianism...”

“Any book in which the page has been properly put on the paper is tolerable to look at, however poor the type may be...”
Materialist Typography  
*Futurism, Dada, and the New Typography*

**NAMES YOU SHOULD KNOW**

F. T. Marinetti (1876-1944)

Giacoma Balla (1871-1958)

Antonio Sant’Elia (1888-1916)

Fortunato Depero (1892-1960)

Iliazd [Ilia Zdanevich] (1894-1975)

Kurt Schwitters (1887-1948)

Jan Tschichold (1902-1974)

**F. T. Marinetti, “Futurist Manifesto,” 1909**

“We will glorify war—the world’s only hygiene—militarism, patriotism, the destructive gesture of freedom-bringers, beautiful ideas worth dying for, and scorn for women. We will destroy museums, libraries, academies of every kind, will fight moralism, feminism, every opportunistic or utilitarian cowardice. We will sing of great crowds excited by work, by pleasure, and by riot...”


“When, in my *Battle of Tripoli*, I compared a trench bristling with bayonets to an orchestra, a machine gun to a *femme fatale*, I intuitively introduced a large part of the universe into a short episode of African battle.”

“Instead of *humanizing* animals, vegetables, and minerals (an outmoded system) we will be able to *animalize*, *vegetize*, *mineralize*, *electrify*, or *liquefy our style*, making it live the life of material. For example, to represent the life of a blade of grass, I say, ‘Tomorrow I will be greener.’”

“I initiate a typographical revolution aimed at the bestial, nauseating idea of the book of passéist and D’Annunzian verse, on seventeenth-century handmade paper bordered with helmets, Minervas, Apollos, elaborate red initials, vegetables, mythological missal ribbons, epigraphs, and roman numerals. The book must be the Futurist expression of our Futurist thought. Not only that. My revolution is aimed at the so-called typographical harmony of the page, which is contrary to the flux and reflux, the leaps and bursts of style that run through the page. On the same page, therefore, we will use three or four colors of ink, or even twenty different typefaces if necessary. For example, italics for a series of swift sensations, boldface for the violent onomatopoeias, and so on. With this typographical revolution and this multicolored variety in the letters I mean to redouble the expressive force of words.”
The Technological Eye  
Constructivism, Montage and the Avant-Garde

TERMS AND NAMES YOU SHOULD KNOW

- Suprematism
- Constructivism
- Photomontage
- Kasimir Malevich (1878-1935)
- El (Lazar) Lissitzky (1890-1941)
- Aleksandr Rodchenko (1891-1956)
- Vladimir Maiakovskii (1893-1930)
- Varvara Stepanova (1894-1958)
- Liubov Popova (1889-1924)
- Vladimir Stenberg (1900-1982) and Gyorgy Stenberg (1900-1933)
- Gustav Klutsis (1895-1944)
- Hannah Höch (1888-1978)
- John Heartfield (1891-1968)
- Walter Benjamin (1892-1940)


“The book is becoming the most monumental work of art: no longer is it something caressed by only a few bibliophiles; on the contrary, it is being grasped by hundreds of thousands of poor people. This also explains the dominance, in our transition period, of the illustrated weekly magazine.”

“Most artists make montages, that is to say, with photographs and the inscriptions belonging to them they piece together whole pages, which are then photographically reproduced for printing. In this way there develops a technique of simple effectiveness...which in powerful hands turns out to be the most successful method of achieving visual poetry.”

El Lissitzky, “The Topography of Typography,” 1923

“The design of the book space, set according to the constraints of printing mechanics, must correspond to the pressures of content....The design of the book-space using process blocks which issue from the new optics. The supernatural reality of the perfected eye.”


“In the [film] studio the mechanical equipment has penetrated so deeply into reality that its pure aspect [appearance] freed from the foreign substance of equipment is the result of a special procedure, namely, the shooting by the specially adjusted camera and the mounting of the shot together with other similar ones. The equipment-free aspect [appearance] of reality here has become the height of artifice; the sight of immediate reality has become an orchid in the land of technology.”

“With the close up [in motion pictures], time expands; with slow motion, movement is extended. The enlargement of a snapshot does not simply render more precise what in any case was visible, though unclear: it reveals entirely new structural formations of the subject. So, too, slow motion not only presents familiar qualities of movement but reveals in them entirely unknown ones ‘which, far from looking like retarded rapid movements, give the effect of singularly gliding, floating, supernatural motions.’ Evidently a different nature opens itself up to the camera than opens up to the naked eye...."
Transcendental Grids *De Stijl and Dutch Modernism*

TERMS AND NAMES YOU SHOULD KNOW

dé Stijl
Theo van Doesburg (1883-1931)
Piet Mondrian (1872-1944)
Frederick Kiesler (1890-1965)
Hendrickus T. Wijdeveld (1885-1989)
Vilmos Huszar (1884-1960)
Gerrit Rietveld (1888-1964)
Bart van der Leck (1876-1958)
Piet Zwart (1885-1977)
Paul Schuitema (1897-1973)

Total Design (Amsterdam)
Studio Dumbar (The Hague)
Linda van Deursen and Armand Mevis (Amsterdam)
Anthon Beeke (Amsterdam)
Droog/Renny Ramakers and Gijs Bakker (Droog Design/Amsterdam)
Language of Vision  
Bauhaus and the New Typography

TERMS AND NAMES YOU SHOULD KNOW

Walter Gropius (1883-1969)
Johannes Itten (1888-1967)
László Moholy-Nagy (1895-1946)
Herbert Bayer (1900-1985)
Joseph Albers (1888-1976)
Joost Schmidt (1893-1948)
Marianne Brandt (1893-1983)
Marcel Breuer (1902-1981)
Paul Renner (1878-1956)

Walter Gropius, “The Theory and Organization of the Bauhaus,” 1923

“We want to create a clear, organic architecture, whose inner logic will be radiant and naked, unencumbered by lying facades and trickeries; we want an architecture adapted to our world of machines, radios and fast motor cars, an architecture whose function is clearly recognizable in relation to its forms.”

“The teaching of craft is meant to prepare for designing for mass production. Starting with the simplest tools and least complicated jobs, he gradually acquires ability to master more intricate problems and work with machinery, while at the same time he keeps in touch with the entire process of production from start to finish, whereas the factory worker never gets beyond the knowledge of one phase of the process.”

László Moholy-Nagy, “Typophoto,” in Painting Photography Film, 1925

“The printer’s work is the foundation on which the new world will be built....One man invents printing with movable type, another photography, a third screen printing and stereotype, the next electrotype, phototype, the celluloid plate hardened by light....Television (Telehor) has been invented: the ‘far see’—tomorrow we shall be able to look into the heart of our fellow-man, be everywhere and yet alone; illustrated books, newspapers, magazines are printed—in millions. The unambiguousness of the real, the truth in the everyday situation is there for all classes. The hygiene of the optical, the health of the visible is slowly filtering through.”

“Photography is highly effective when used as typographical material. It may appear as illustration beside the words, or in the form of ‘phototext’ in place of words, as a precise form of representation so objective as to permit of no individual interpretation.”

“What the Egyptians started in their inexact hieroglyphs whose interpretations rested on tradition and personal imagination, has become the most precise expression through the inclusion of photography into the typographic method. Already today we have books (mostly scientific ones) with precise photographic reproductions; but these photos are only secondary explanations of the text. The latest development supercedes this phase, and small or large photos are placed in the text where formerly we used inexact, individually interpreted concepts and expressions. The objectivity of photography liberates the receptive reader from the crutches of the author’s personal idiosyncrasies and forces him into the formation of his own opinion.”

Herbert Bayer, “Towards a Universal Type,” 1935

“sans serif type is the child of our period. we welcome it as the most modern type. we cannot set about inventing an entirely new form of type, as this would have to be parallel with a radical reorganization of the language. we must remain true to our basic letter-forms, and try to develop them further. classic roman type, the original form of all historical variations of type, must still be our starting point. all the variations of shape have been formed freely according to the style and the calligraphy of the type designer, and it is just this freedom which has been responsible for so many mistakes. geometry, however, gives us the most exact forms.”

“we need a one-letter alphabet. it gives us exactly the same result as the mixed type of capitals and lower-case letters, and at the same time is less of a burden to school children, students, professionals and businessmen. it can be written considerably more quickly, especially on the typewriter, where a shift key would be unnecessary. typewriters would be cheaper because of simpler construction. typesetting would be cheaper, typecases smaller; printing establishments would save space.”

Theo van Doesburg writing about the Bauhaus, 1922

“To prevent infection, I feel obliged to publicly speak out, to criticize and to warn, concerning an institute which, under the guise of fine utterances specified in a program, can be regarded as the sickly extravagance of all twentieth-century artistic expression... Here, one can genuinely find a kind of refuse dump where the leftovers of Cubism, Futurism, Expressionism, etc. are heaped together monstrously, offending the eye... Just as the Church is a parody of Christianity, the Bauhaus of Gropius in Weimar is a parody of the Nieuwe Beelding [Neo Plasticism].... Glass fragments, pointlessly stacked one upon the other, without proportion, without coherence, without construction, without use, tantamount to the primitive, sensory urge for the decoration of uncivilized savages.” [quoted in Ed Taverne, “The only truly canonical building in Northern Europe,” Mart Stam’s Trousers: Stories from behind the Scenes of Dutch Moral Modernism (Rotterdam: 010 Publishers, 1999), 94-95.]
Design in America  *Popular Modernism to Corporate Modernism*

**NAMES YOU SHOULD KNOW**

M. F. Benton  
A. M. Cassandre (1901-1968)  
Charles (1917-1878) and Ray Eames  
Alexey Brodovitch (1898-1971)  
Dr. M. F. Agha (1896-1978)  
Raymond Loewy (1893-1986)  
Will Burtin (1908-1972)  
Lester Beall (1903-1963)  
Bradbury Thompson (1911-c.1996)  
Paul Rand (1914-c.1996)
Design as Sign  Pop and Post-Modernism

TERMS AND NAMES YOU SHOULD KNOW

Andy Warhol
Roy Lichtenstein
P. Reyner Banham (1920 - 1988)
Robert Venturi (b. 1925)
Denise Scott Brown
Milton Glaser (b. 1929)
Seymour Chwast (b. 1931)
Herb Lubalin (1918 - 1981)
Tadanori Yokoo (b. 1936)

From Learning from Las Vegas, Robert Venturi, Denise Scott Brown, and Steven Izenour, 1972

“For the artist, creating the new may mean choosing the old or existing. Pop artists have relearned this. Our acknowledgment of existing, commercial architecture at the scale of the highway is within this tradition.”

“But on the commercial strip, the supermarket windows contain no merchandise. There may be signs announcing the day’s bargains, but they are to be read by pedestrians approaching from the parking lot. The building itself is set back from the highway and half hidden, as is most of the urban environment, by parked cars. The vast parking lot is in front, not at the rear, since it is a symbol as well as a convenience. The building is low because air conditioning demands low spaces, and merchandising techniques discourage second floors; its architecture is neutral because it can hardly be seen from the road.... The big sign leaps to connect the driver to the store, and down the road the cake mixes and detergents are advertised by their national manufacturers on enormous billboards inflected towards the highway. The graphic sign in space has become the architecture of this landscape.”

“The sign for the Motel Monticello, a silhouette of an enormous Chippendale highboy, is visible on the highway before the motel itself. This architecture of styles and signs is antispacial; it is an architecture of communication over space; communication dominates space as an element in the architecture and in the landscape. But it is for a new scale of landscape. The philosophical associations of the old eclecticism evoked subtle and complex meanings to be savored in the docile spaces of a traditional landscape. The commercial persuasion of roadside eclecticism provokes bold impact in the vast and complex setting of a new landscape of big spaces, high speeds, and complex programs. Styles and signs make connections among many elements, far apart and seen fast. The message is basely commercial; the context is basically new.”
Semiotics  *Language as Culture*

TERMS AND NAMES YOU SHOULD KNOW

semiotics, semiology

signifier, signified, sign

mythology

**The New Advertising**

Roland Barthes (d. 1980)

Doyle Dane Bernbach

George Lois (b. 1931)

Lou Dorfsman (b. 1918)

Herb Lubalin (b. 1918)

**Roland Barthes, “Myth Today,” 1957**

“We shall...take language, discourse, speech, etc., to mean any significant unit or synthesis, whether verbal or visual: a photograph will be a kind of speech for us in the same way as a newspaper article; even objects will become speech, if they mean something.”

“Every object in the world can pass from a closed, silent existence to an oral state, open to appropriation by society, for there is no law, whether natural or not, which forbids talking about things.”

“I am at the barber’s, and a copy of *Paris-Match* is offered to me. On the cover, a young Negro in a French uniform is saluting, with his eyes uplifted, probably fixed on a fold of the tricolour. All this is the meaning of the picture. But, whether naively or not, I see very well what it signifies to me: that France is a great Empire, that all her sons, without any colour discrimination, faithfully serve under her flag, and that there is no better answer to the detractors of an alleged colonialism than the zeal shown by this Negro in serving his so-called oppressors. I am therefore again faced with a greater semiological system: there is a signifier, itself already formed with a previous system (a black soldier is giving the French salute); there is a signified (it is here a purposeful mixture of Frenchness and militariness); finally, there is a presence of the signified through the signifier.”

“The form of myth is not a symbol: the Negro who salutes is not the symbol of the French Empire: he has too much presence, he appears as a rich, fully experienced, spontaneous, innocent, indisputable image. But at the same time this presence is tamed, put at a distance, made almost transparent; it recedes a little, it becomes the accomplice of a concept which comes to it fully armed, French imperialism: once made use of, it becomes artificial.”
Deconstruction  
*Examining the Structure of Style*

TERMS AND NAMES YOU SHOULD KNOW

deconstruction

“Swiss Design”

Cranbrook Academy of Art

Jacques Derrida

Armin Hofmann (b. 1920)

Josef Müller-Brockman (b.1914)

Emil Ruder (1914-1970)

Wolfgang Weingart (b.1941)

April Greiman (b. 1948)

Katherine McCoy (b. 1945)