From sunglasses to subway systems, we live with the results of a design process that affects us in body, mind, and spirit. In this course we will chart the stages through which the vocabulary of modern design took shape.

Drawing upon objects, images, buildings, and information systems, we will study leading movements of late 19th through early 21st century design. To “de-sign” is, literally, “to impart significance,” a process that engages the human condition at every level. Like the designers we study, we will therefore draw heavily upon philosophy, politics, the human sciences, and the arts.

In the end, we will find that design is not ultimately about objects but about ideas.

I. REQUIREMENTS (see detailed “Term Assignment” and “Schedule of Deliverables”):
1. Completion of all readings and listenings (TED Talks); attendance at all lectures.
2. A quarter-long, hands-on research project, in which you will learn how to learn about design.
3. Two section meetings (Week 3 and Week 6) to discuss progress on your research.

II DESIGN COMMUNITY: An informal lunchtime discussion section will take place every Friday from ~12:15-1:30 in the courtyard of the Design Loft. All are welcome. Andreas and Lauren will be available to meet with students during scheduled office hours, and by appointment.

III. GRADING: Your grade will be determined by our estimation of the challenge of your topic, the depth of your research, the originality of your ideas and the quality of your execution.
**Please note that the grade of “Incomplete” cannot be assigned in this class.**

IV. READINGS: Please purchase the following from the Stanford Bookstore:
Bruce Sterling, *Shaping Things* (MIT Press)
*Design for the Other 90%* (Cooper-Hewitt Design Museum, Smithsonian Institution)

Raindrops on roses and whiskers on kittens; Bright copper kettles and warm woolen mittens; Brown paper packages tied up with string…
V. SCHEDULE OF MEETINGS AND TOPICS

APRIL 3.  INTRODUCTION: FROM THE HISTORY OF THINGS TO THE HISTORY OF DESIGN

Although human beings have been making things for a bit more than 2,000,000 years, "design" *per se* is a relatively recent attitude. We will begin by raising some questions about *what* things mean and *how* things mean.

APRIL 10.  THE AESTHETICS OF INDUSTRIALISM

If design refers to a way of thinking about the object in an age of mass-production, then we should start in 1849 when the *Journal of Design and Manufactures* announced its radical program: "to wed high art with mechanical skill." The English socialist William Morris was the most cogent and inspirational critic of this new order.

*read:* Bruce Sterling, *Shaping Things*

*listen:* John Maeda: "The Laws of Simplicity"  

*optional:* William Morris, "The Lesser Arts" (1877)  
[http://www.marxists.org/archive/morris/works/1882/hopes/chapters/chapter1.htm](http://www.marxists.org/archive/morris/works/1882/hopes/chapters/chapter1.htm)

*due:* 3 topic proposals due in class

APRIL 17.  INDUSTRIAL CULTURE?

Once the reality of mass production was accepted, the debate over its role in design began in earnest: Is the machine merely a tool with which to realize the designer's private aesthetic vision? Or is it the very image of the new society and its products?

*read:* in Conrads, *Programs and Manifestoes*: Van de Velde (1903); Loos (1908); Muthesius (1911); Muthesius/Van de Velde (1914);

*listen:* Eva Zeisel: "The Playful Search for Beauty"  

*optional:* Frank Lloyd Wright, "The Art and Craft of the Machine" (1901)  

*first section meeting*

APRIL 24.  DESIGN BETWEEN ART AND ENGINEERING

Modern design emerged out of the historic convergence of mass production, mass culture, and the mass media. As the forms of modern technology began to transform the visual culture of the 20th century, a generation of avant-garde artists struggled to make sense of them and to realize the dream of bringing "art into life."

*read:* Filippo Tomasso Marinetti, "Foundation and Manifesto of Futurism" (1909)  
[http://www.unknown.nu/futurism/manifesto.html](http://www.unknown.nu/futurism/manifesto.html)

*listen:* in Conrads, *Programs & Manifestoes*: Sant'Elia (1914); De Stijl (1918, 1922, 1923); Gabo (1920); Malevich (1924); El Liisitzky (1929).

*listen:* Kevin Kelly, "What Technology Wants"  

*due:* Project proposal and Personal Design Manifesto due in class.
MAY 1.  **SPACE, TIME AND THE INTERNATIONAL STYLE**
In 1919 the German architect Walter Gropius founded the first modern design school—the Bauhaus—under the slogan, “Art and Technology: A New Unity.” This may be considered the first application of design to the problems of modern industry.

*read:* in Conrads, *Programs & Manifestoes*: Gropius (1926); Le Corbusier (1926); CIAM (1933).

*listen:* William McDonough: “Cradle to Cradle Design”  
http://www.ted.com/index.php/talks/william_mcdonough_on_cradle_to_cradle_design.html

MAY 8.  **CULTURE AND CONSUMPTION: INDUSTRIAL DESIGN IN AMERICA AND BRITAIN**
Industrial Design was born in Depression-era America and has always been closely linked to consumerism and mass culture. In this respect, the commercialism of Raymond Loewy (“Never leave well enough alone”) and the idealism of Henry Dreyfuss (“Designing for people”) are two sides of the same coin.

*no reading:* second section meeting

*listen:* Barry Schwartz, “The Paradox of Choice”  

MAY 15.  **FORM FOLLOWS FASCISM: DESIGN AS POLITICS, DESIGN AS SCIENCE**
Designers emerged from the war with a mandate to rebuild their shattered cultures “dal cucchiaio all città”—“from a teaspoon to a city.” Postwar German designers focused on functionality, Italian theorists grappled with the aesthetic dimension of objects, while Japanese designers tried to shake off the mantle of the west and acquire their own voice.

*read:*  *Design for the Other 90%*  (begin)

*listen:* Paola Antonelli, “Design and the Elastic Mind”  
http://www.ted.com/index.php/talks/paola_antonelli_previe\_design_and_the_elastic_mind.html

MAY 22.  **DESIGN AND THE PUBLIC GOOD**
During the dotcom era stupendous fortunes were made—and lost—in the design and propagation of ephemeral and often useless conceits. Goodbye and good riddance! In the aftermath we have witnessed an extraordinary commitment to “sustainable” design in the broadest and most comprehensive sense: sustainable products, sustainable cultures, and a sustainable planet.

*read:*  *Design for the Other 90%*  (finish)

*listen:* Cameron Sinclair: “Architecture for Humanity”  

*due:*  1-page graphic summary of research project due in class

MAY 29.  **DESIGN AND THE MILLENNIUM**
The arrival of chip-based, web-based, and (soon enough) gene-based products, has changed the terms of design theory and design practice. We conclude by reviewing some of the controversies that have enlivened design theory in recent years. Design today has become both a flashpoint for the present and a probe for the exploration of alternative futures.

*Final Research Project due in class.*

*Note that the grade of “Incomplete” cannot be assigned in this class.*
BIBLIOGRAPHY

The literature on 20th century design is vast but uneven. For a pair of guides spanning the last decade see the review essays by Barry Katz, "Technology and Design: A New Agenda," in Technology and Culture (April 1997) and "Intelligent Design," Technology and Culture (April 2006). Recent collections include Design After Modernism, ed. John Thackara, Edge of the Millennium, ed. Susan Yelavich, and Looking Closer: Critical Writings on Graphic Design, ed. Michael Bierut, et al. And don't forget the journals: Design Issues, ID Magazine, Innovation, Metropolis, Axis, Domus, Dwell, etc.

Some general reference works include:

- Mel Byars, The Design Encyclopedia
- Kathryn Hiesinger and George Marcus, Landmarks of Twentieth-Century Design

Following upon Nikolaus Pevsner's polemical classic, Pioneers of Modern Design (1936), various authors have attempted the hopeless task of writing a comprehensive narrative history:

- Reyner Banham, Theory and Design in the First Machine Age
- Adrian Forty, Objects of Desire
- Jeffrey Meikle, Design in the USA
- Arthur J. Pulos, American Design Ethic and American Design Adventure
- David Raizman, History of Modern Design
- Penny Sparke, An Introduction to Design and Culture
- Jonathan Woodham, Twentieth-Century Design

Professional sub-fields of design continue to proliferate, as do their histories:

- Spiro Kostof, A History of Architecture: Settings and Rituals
- Stephen J. Eskilson, Graphic Design: A New History
- Bill Moggridge, Designing Interactions
- John Pile, A History of Interior Design
- Ulrich Lehmann, Tigersprung: Fashion in Modernity

The major design movements have all been extensively documented; in addition, you may be interested in some of the more specialized studies of contemporary design which include:

- Hal Foster, Design and Crime and Other Diatribes
- Pat Kirkham, Women Designers in the USA, 1900-2000: Diversity and Difference
- Ezio Manzini, The Material of Invention
- William McDonough and Michael Braungart, From Cradle to Cradle
- Jeffrey Meikle, Twentieth Century Limited; American Plastic: A Cultural History
- Harvey Molotch, Where Stuff Comes From
- Donald Norman, The Psychology of Everyday Things; Emotional Design
- Victor Papanek, Design for the Real World; The Green Imperative

A selection of theoretical works on material culture, visual culture, and cultural theory:

- Arjun Appadurai, ed., The Social Meaning of Things
- Judy Attfield, Wild Things: The Material Culture of Everyday Life
- Roland Barthes, Mythologies; The Eiffel Tower; Empire of Signs
- Jean Baudrillard, The System of Objects; Toward a Political Economy of the Sign
- Pierre Bourdieu, Distinction: A Social Critique of the Judgment of Taste
- Mihaly Csikszentmihaly and Eugene Rochberg-Halton, The Meaning of Things
- Vilém Flusser, The Shape of Things: A Philosophy of Design
- Stephen Kern, The Culture of Time and Space
- Bruno Latour, We Have Never Been Modern
- Brenda Laurel, ed., Design Research: Methods and Perspectives
- Grant McCracken, Culture and Consumption I, II
- Daniel Miller, Material Culture and Mass Consumption; A Theory of Shopping
- Terry Smith, Making the Modern
- John Thackara, In the Bubble: Desiging in a Complex World
- Peter-Paul Verbeek, What Things Do: Relections on Technology, Agency and Design

When the dog bites, When the bee stings, When I'm feeling sad, I simply remember my favorite things. And then I don't feel so bad.
TERM ASSIGNMENT

OBJECTIVE: To gain a broad perspective on design through first-person, hands-on research.

ASSIGNMENT: You are to select a mass-produced use-object, recently in production, and investigate it using the tools of design research. Your final deliverable is due in class on May 29.

The object you select may be drawn from any medium you choose, including (but by no means limited to) industrial machinery, consumer electronics, buildings or architectural spaces, clothing, graphics, typography, medical or scientific instruments, toys, books, websites, food, gardens, office equipment, sporting goods, urban environments, etc. Note that we are not asking for a history of a product type but a multi-faceted analysis of a specific object. Compare the following examples:

** not acceptable: "office furniture"
** acceptable: "the Herman Miller Aeron chair designed in 1994 by Don Chadwick and Bill Stumpf"

** not acceptable: "motorcycles"
** acceptable: "the 2002 Harley-Davidson Sportster 883 Custom"

If you think of this as a design exercise rather than a term paper you will be able to avoid misconceived projects on "The History of Contraception" or "Handguns and Society." Although "History" and "Society" may be critical elements of your project, your challenge is to develop a strategy that enables you to analyze the specific artifact you have selected. This will require imagination and perseverance. Some of the questions you might ask include:

** What is the history of the object, and of the category to which it belongs?
** Who designed it? Who was the client? Where and how was it manufactured?
** What different fields of design does it embody (mechanical, graphic, interactive, packaging…)?
** What technologies made it possible?
** Does it have a life cycle (sales, delivery, use, service, disposal…)?
** For whom is the product intended, and who are its actual users?
** Are there rituals of use surrounding it? Can it be misused?
** Can it be compared with products of different genres (e.g., a modern building and a modern typeface)?
** Is it gendered or otherwise culturally specific (inappropriate for children, inaccessible to the elderly…)?
** Are there ethical, political, or legal issues associated with it?
** How might the design have been improved?

These sample questions are just to get you started, and not all of them may be relevant to your topic. Thirty minutes of brainstorming with your friends will produce dozens more.

GRADING: Your grade will be based on our judgment of the thoughtfulness of your design research and the thoroughness of your analysis. Although different topics will invite different criteria of judgment, these are examples of the sorts of questions we are likely to ask in evaluating your work:

** Have you used multiple sources?
** Have you been imaginative in developing research protocol?
** Have you been aggressive in pursuing specialists or sampling user responses?
** Have you identified key players (inventors, designers, manufacturers, retailers)?
** Have you identified notable turning points in the history or evolution of your selected objects?
** Have you explained what is unique about your product relative to competitors? to predecessors?
** Have you drawn upon relevant theories, concepts, and movements from the history of design?
** Have you applied diverse categories (technology? behavior? symbolism? ritual?)
** Have you made an argument, an analysis, or an interpretation that is distinctively your own?
** Have you created an original presentation that is appropriate to the subject matter?
SCHEDULE of DELIVERABLES

Week 1 (April 3):
You will be assigned to an instructor, who will be your principal contact over the course of the quarter.

Week 2 (April 10):  3 topic proposals (ranked) due in class.
We suggest that you identify several products within each category you propose, for example:
#1) the Apple iPhone, the Motorola RAZR V3, and the Nokia 6230;
#2) the Computer History Museum, the Tech Museum of Innovation, and the Exploratorium;
#3) Pro-E, SolidWorks, and FormZ;
You will ultimately choose only one, (e.g., the RAZR), but product comparisons are entirely valid.
Do some webwork but also some footwork to make sure you will have an opportunity to engage the proposed artifact directly (enter the building, sit on the chair, use the toothbrush…), identify experts and users, etc.

Week 3 (week of April 13-17):  Section Meeting #1
During your first section meeting you will have the opportunity to discuss your proposed topics and possible ways to approach them.

Week 4 (April 24):  Research proposal due (1 page).
Describe topic, research plan (books, journals, websites, etc.), visits to manufacturing or distribution sites, plans for user interviews, consultations with experts, etc.

Week 5:  Continue research.
Consultation with instructors, as required.

Week 6 (week of May 4-8):  Section Meeting #2
This section meeting will help you refine your research strategy, discuss problems you may be encountering, compare notes and build on each other’s ideas.

Week 7 (May 15): One-page graphic representing your preliminary findings.
Research photo due by email (an image of yourself engaging your selected artifact).

Week 8:  Continue research, move to final execution.
Consultation with instructors, as required.

Week 9 (May 29):  Final Research Project due in class.
Note that the grade of “Incomplete” cannot be assigned in this class.