Articles 742b: Networks & Transactions
Spring 2018, Tuesdays 1:30–5:30
Green Hall, Room 209
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"I was a real amateur at it but I learned what his feeling for chess was.... He said it wasn't a war game, it's an aesthetic game, and you feel the shape of the board as it begins to shift its pattern and you make it become beautiful, even if you lose."
–The gallerist Julien Levy remembering being taught to play chess by Marcel Duchamp

"A black, E white, I red, U green, O blue"
– Arthur Rimbaud

"If the balanced line is considered to be the only correct one, then the typewriter must, of necessity, write incorrectly."
– Josef Albers, "Regarding the Economy of Typeface"

"This is an A train running local, local, local, local, local, local, local, local, local to Lefferts Boulevard."
– Conductor unknown

"I was wondering about a radio [broadcaster] in the Netherlands ... he was stu-stu-stu-stuttering. And I was thinking, how is it possible that someone who can do everything, he can be a postman, he can be a scientific thinker, he can be an architect, but not someone who's working with language... But when he was speaking it was so intense and so believable..."
– Karel Martens

Class hypothesis

How can graphic design influence and be influenced by the unpredictable encounters between one group and another? Or between quantities of unknown users on one side, and vast webs of fluctuating information on the other? In this course students develop typographies, visual languages, and motion vocabularies appropriate for these pervasive conditions of the modern world, found in experiences as varied as Facebook, YouTube "supercuts," the game of chess, automated stock trading, and the organization and speech patterns of political movements. The course posits that designed form may sometimes be visible, and at other times be relational or latent rather than directly seen.

Class structure and discussion criteria

Studio
This class is primarily a studio course. Your work is critiqued as graphic design – as a part of your own design practice. It is not critiqued primarily as code, although the overall elegance of a design may relate to the fit between your project's visible design and its code. Nor is it critiqued for its salability in any "app marketplace," nor for its potential popularity in the marketplace of websites, nor for filling some perceived gap in the universe of existing website functionality. Your innovation should take place at the level of design.

Programming
But the course also includes a programming lab in which fundamentals of coding are taught through hands-on work most weeks. Only by programming can you test your project's design against human factors and the other externalities and network effects which are at the heart of this studio. Therefore, it's essential to begin programming quickly, and to test your project often by using it yourself and asking others to use it – even if the code doesn't completely implement your design intent yet. Furthermore, by programming, even when it's difficult and even if you decide not to program your own work in the future, you gain a deep understanding for the flows, protocols, and structures that are the carrier wave for your design. No previous programming experience is expected. Our programming will focus on PHP, a server-based language that is easy to get started with. (PHP is also the language used by popular content management systems such as WordPress and Kirby.) PHP works in conjunction with

HTML5, the browser-based markup language. We will also use the MySQL database system for persistence of user-contributed content.

Links to programming resources useful for each week will be posted on the class webpage.

Reading

Weekly reading discussions from a range of sources complete a triangle of design, practice, and theory. Readings will be distributed most weeks; we will discuss the reading in class the following week, so you should prepare questions and observations as you read.

Participation

Each week:

– Two students will be assigned to develop questions with which to lead a class discussion about the assigned reading for the following week.
– One student will be selected to post a new relevant reading, visual example, or link.
– All students are required to post a screenshot or code snippet of their work each week on our class page.
– Attendance each week is essential, as is weekly programming practice between classes, as well as weekly design progress.
– All students are expected to show work in weekly design critiques and to comment in critiques of other students' works.

Studio assignments

Assignment 1: Chess

Step 1. If you don't know how to play chess, please learn how to.

Step 2. Combining your knowledge of chess – its rules and other aspects of the game's strategies and poetics which you identify through research and personal practice – together with your own thesis, design a set of chess pieces.

Your chess pieces should be two-dimensional. If Calder's or Ernst's chess sets are about the nature of sculpture (through the lens their own artistic practices) in equal measure as they are about the game of chess (its rules, strategies, and poetics), then this is a project about the nature of graphic design/typography (through the lens of your

own thesis) in equal measure as it is about the game of chess (its rules, strategies, and poetics).

You can take some liberties in that your pieces don't have to comprise a usable game, a familiar vernacular, or a marketable product etc. – but they do have to obey the rules of chess (e.g. 16 pieces per side in 6 genres [king, queen, rook, bishop, knight, pawn], the bishop moves diagonally, etc. etc.).

Consider the relationship between the game's visible aspects (game pieces) and invisible aspects (rules, stratagems, opposition). How does each uniquely reveal, influence, or engage the other?

You may wish to consider this brief from Duchamp:

The standard chess sets now in use, the FRENCH set and the STAUNTON, are both somewhat confusing in the similarity and intricacy of their forms. In the French Set for example, the Bishop is a little Queen and the pawn a little Bishop. Cannot a new set be designed, that is, without a too radical departure from the traditional figures, at once more harmonious and more agreeable to the touch and to the sight, and above all, more adequate to the role the figure has to play in the struggle? Thus, at any moment of the drama its optical aspect would represent (by the shape of the actors) a clear incisive image of its inner conflicts. In the complicated modern game the figures should inspire the player instead of confusing him. They should whisper to him at the right moment: "Move now to QB4. ... Break through the center. ... Pin the Knight. ... Let me win a piece. ... We can exchange Queens, the pawn will be metamorphosed into a new Queen. ... to mate the King."
  and
  they should never make a
  MISTAKE.

It's your choice whether you want to in any way consider existing vernaculars of chess sets. You could ignore the "Staunton" standard style of chess pieces altogether and focus only on the nature of the game (for example, what Duchamp calls the potential to reveal an "incisive image of its inner conflicts"), and your thesis, as design factors.

Assignment 2. Letters and numbers.

Accept input from a user of exactly one letter A–Z and one number 0–9 (or any upper limit you want). Your program should use an algorithm to create at least 260 interesting and different possible typographic outputs. What ties them together? What makes them unique? What connects this program to the rest of your work?

Assignment 3. Server

Create a webpage whose only input is the time (and/or date and/or year) and the number of people requesting it. That is, it takes no explicit input from users.

Assignment 4. Content management system

Up to now, we have accepted input from users and from the network itself, and we have provided output to users in the moment; but we haven't tried to store input so it can be available to other users (or the same users) at a later time. Now we will introduce that aspect, sometimes called "persistence." Create a simple content management system. Consider who may edit it (only you, a select group, a large group, or anyone), and who will be viewing it (only you, a select group, or a large group). What is the relationship (defined literally by your code in PHP) between the following aspects:

— User base
— Prompt
— Content
— Data structure
— Algorithm
— DIsplay

What should these be in the world of your thesis?

Consider especially, as in Assignment 3 – how does your system evolve, take shape, and shift over time?

Readings

Readings will be distributed on the class webpage and through the available printed reader. We may adjust the readings from week to week.

Christopher Alexander, Sara Ishikawa, Murray Silverstein, *A Pattern Language* (selection)

Italo Calvino, "Quickness"

Dexter Sinister*,* "Letter & Spirit"

Hans Ulrich Obrist, *Cedric Price* (selection)

Frederic Jameson, "Fear and Loathing in Globalization" (review of William Gibson's *Pattern Recognition)*

Franco "Bifo" Berardi, *Poetry and Finance* (selection)

Charles Stross, *Accelerando* (selection)

Clay Shirky, "Group as User: Flaming and the Design of Social Software"

Jack Balkin, Dan Michaelson, "Sometimes it Looks Like a Duck, Sometimes it Looks like a Rabbit"

Eric Foner, *Freedom* (selection)

Yochai Benkler, *The Wealth of Networks* (selection)

Adrienna LaFrance, "The Algorithm That Makes Preschoolers Obsessed With YouTube"

Paul Covington, Jay Adams, Emre Sargin, "Deep Neural Networks for YouTube Recommendations"

Samidh Chakrabarti ,"Hard Questions: What Effect Does Social Media Have on Democracy?"