Arch 587 - Autumn, 2017
Theory of Design Computing
http://quicksilver.be.washington.edu/courses/arch587

Instructor Info
Instructor: Brian Johnson
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Office Hours by appointment (email me)

Course Description
Explores the relationship between theories of design and computational tools. Explores how the emergence of computing as a mainstream tool in design is changing architectural practice. Discusses how, as with other technologies that have revolutionized the practice of architecture, information technologies carry hidden implications about design process and products.

This is a seminar about

- Ideas and vocabulary of computing and design and how they do or don’t interact, including good ideas that went nowhere while weak ideas prospered.
- Design – what it is, what it isn’t, what it could be, who does it, how they do it.
- Computing – is it a machine or a brain? Does it matter?
- People – the individuals and groups who have influenced our thinking on these topics.
- The Past – influential concepts, theories and software in the domain of design computing.
- The Present – theories, trends, trajectories.
- The Future of design and its uneasy relationship to computing. Opportunities to explore.

Methodology

- Weekly reading of primary sources to understand the major themes in design computing.
- Weekly writing each week a short response to the readings (and discussion prompt).
- Discussion with your peers about the ideas, sharing your interests and thinking. Leadership of at least one discussion session during the quarter.
- Research into a related topic of your choosing, assembled into a research paper and summarized in a short presentation to the class.

Goals for the quarter

- To understand the broad brushstrokes (and some details!) of thought at the intersection of the built environment, computing and design, becoming acquainted with the important authors, ideas, and projects that have contributed the most to bringing us to the current time and place.
- To take ownership of the vocabulary of ideas and concepts necessary to participate in the larger worldwide discussion of design computing and to see what current topics are being talked about.
- To focus your thinking on a particular set of ideas and examine them in some detail, providing opportunity for you to produce a paper and lead a discussion with the other students.

For More Information: http://quicksilver.be.washington.edu/courses/arch587
### Grading

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<tbody>
<tr>
<td>Readings (responses)</td>
<td>40%</td>
<td>(reading responses)</td>
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<td>Discussion participation</td>
<td>20%</td>
<td>(face to face interaction and</td>
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<td>Discussion leadership</td>
<td>10%</td>
<td>preparation)</td>
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<td>Research Paper:</td>
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The class is fairly large this year so I do not expect to return each and every reading response each week, with comments. However, I will return a few each week.

### Expectations

- It is expected that you will actively participate in all activities related to the course.
- There will be weekly **readings** assigned from an online collection, to be discussed in class as shown in the schedule. You are expected to read **all** the material and prepare a short (1-3 page) written response to 80% of them. You are expected come to class prepared to discuss all of them.
- Finally, you will be expected to prepare a 10-15 page **research paper** complete with references on the topic of your choice (subject to instructor approval) and present a short summary of your paper to the class.

### In case of illness

This class meets just once a week. If you get sick and miss a day, that's 10% of the class sessions (ouch!). Obviously the most important thing is to give yourself time to get better, but stay connected. Send me an email to let me know what’s going on. If you get to the “feeling better, but still not good enough to go to class” you can still do the readings and keep in touch via the class email list. Take the “Questions to think about” from the reading assignments and write a short essay addressing them and anything else you find interesting, then share it with us via the course BBS or mailing list.

### Some words and people to check into

I realize that there is a very large body of material in the background of “design computing,” including famous projects, people, and terminology. It is unlikely that you are familiar with all of these. Each of us comes with a different background, and each of us can learn more. Take responsibility for learning something “extra” every day or two. Google and Wikipedia are great aids in this context, as are PDFLIB and CUMINCAD. When you dig into something new, write up a short post about what you learned and send it to the mailing list (arch587a_au17@uw.edu). The extra-credit bean-counters will smile upon you.

**Words & Phrases:**

**People:**