LMC 6650 Project Studio: Digital Craft

Project Studio - 91420 - LMC 6650 - MN Fall 2018 Michael Nitsche <u>michael.nitsche@gatech.edu</u>

Where? TSRB 317C/ Skiles 02 When? 9:30 am - 10:45 am Mo + Wed

Outline

"Craft, art, and design are words heavily laden with cultural baggage. For me, they all connote the profound engagement with materials and process that is central to creativity. Through this engagement form, function, and meaning are made tangible. It is time to move beyond the limitations of terminologies that fragment and separate our appreciation of creative actions, and consider the 'behaviors of making' that practitioners share." David Revere McFadden

What can media and interaction design learn from craft practice? Traditional crafting techniques have long socio-technological histories, deeply personal stories, peculiar practices, amazing materials, and mysterious tools. This course combines theory and discussion with experiential learning and speculative intervention. That means, students will discuss scholarly work from HCI (e.g. Experimental Knowledge and Tangible Interaction) and Craft Research (e.g. "Critical Craft" and Neocraft). In parallel, we will develop practical explorations and interventions following more applied threads (e.g. Speculative Design and Critical Making).

A central component will be a craft-centered final project during which students will trace creative practices of individual crafters to ultimately design and implement their own prototype responses.

The course should speak to students interested in tangible interaction design, from soft circuits to paper computing, especially those who want to explore new paths in this area. Students should expect in-class discussions of readings and projects, critical reflections and design reviews, and a hands on encounter of craft practices that leads to a final project exemplifying your approach to hybrid craft.

Students should expect to use elements of physical computing (e.g. Arduino) but the course is not focused on any single technology.

Contact

michael.nitsche@gatech.edu TSRB 316B p 404 894 7000 Office hours Mo 1-2

Goals

The projected learning outcomes of this course are:

- To explore and experiment with Craft as a lens into Digital Media
- To learn how to use discussion as well as design sketches and practical prototypes as argumentative material
- To learn, apply, and reflect upon the necessary technology in the implementation of the final project
- To inform argumentation about digital media in the nexus of art, design, and craft

Textbooks

There is no single textbook but related books include:

- Adamson, Glenn, ed. 2010. The Craft Reader. Oxford, UK, New York Berg.
- Alfoldy, Sandra, ed. *NeoCraft: Modernity and the Crafts*. Halifax, CAN: The Press of the Nova Scotia College of Art and Design.
- Dormer, Peter, ed. 1996. *The Culture of Craft: Status and future*. Manchester, UK: Manchester University Press.
- McCullough, Malcolm. 1998. *Abstracting Craft: The Practiced Digital Hand*. Cambridge, MA: MIT Press.

Whenever possible, the readings will be online as .pdf.

Schedule

(adjustments are bound to happen)

	Field/ question/ method		
8/20	How did we get here?		
8/22	What is "craft"?	Shiner; Dormer	
8/27	What is "craft-based inquiry" in HCI? DUE: IRB certification	Frankjaer/Dalsgaard	
8/29	How to "look at" materials? Exercise : bring in a material and present its properties and possibilities	Karana; Wiberg	
9/3	Labor Day		
9/5	MoDa visit		
9/10 9/12	Vocabulary/ Exploration: Bannon – What is the "turn to practice"? Adamson – What is "Thinking Through Craft"? Nimkulrat – What is "experiential knowledge" in design? Schön – What is the "reflective practitioner"? Ratto – What is "critical making"? Groth/Berg – What is "co-creation" in craft?Vocabulary/ Exploration:		
9/17	continued How to think "with iron"?	Keller&Keller	
9/19	Vocabulary/ Practice/ Exploration Ingold/ Hallam – What is "cultural improvisation"? Richards – What do we "center"? Oliver – Is craft "performing"? Bødker – What is "activity theory" for HCI? Ingold – What is "knowing from the inside"? Pye – What is "risk"?		

	Morris – Why should we "produce beauty"? Polanyi – What is "tacit knowledge"? OR : Present a material intervention (re-use of your material exploration as a hybrid version)	
9/24	Vocabulary/ Practice/ Exploration continued	
9/26	What is "hybrid" about crafting? Debate : Why combine digital with traditional practices in the first place?	Zoran/Buechley; Frayling
10/1	DUE: Own crafter presentations Presentation	
10/3	DUE: Own crafter presentations Presentation (continued)	
10/8	Recess	
10/10	What is "need"?	Risatti
10/15	DUE: Own paper presentations: examples of digital craft	
10/17	DUE: Own paper presentations: examples of digital craft	
10/22	Does craft need a "social context"?	Greer; Morris/ Marx?
10/24	What is "vital"?	Simondon
10/29	DUE: project idea presentation	
10/31	DUE: project idea presentation	
11/5	Work on projects – individual catch up with MN	
11/7	Work on projects – individual catch up with MN	
11/12	DUE: prototypes presented in class (tech presentation of the how/ what/ why's)	
11/14	DUE: prototypes presented in class (tech presentation of the how/ what/ why's)	
11/19	Work on projects – individual catch up with MN	
11/21	Recess	
11/26	Work on projects – individual catch up with MN	
11/28	DUE: Project and critical reflection (presentation) – in class with discussion	
12/3	Last instruction day DUE: Project and critical reflection (presentation) – in class with discussion	

12/5	Exam week (no meeting) DUE: documentation (video, writings,	
	paper, visual documentation)	

Grading and Main Deliverables

Assignment	Description	% of final grade
Assigned Paper presentations (2)	Students will present on a particular question related to specific texts/ authors; each presentations should provide an answer to the question posted (or a different perspective to it) and provide the necessary academic background for us to understand that reply; the goal is to assemble a wide vocabulary for all students to use; each presentation should be about 17-20 minutes and end with some open discussion points to allow the rest of the class to connect and follow up. You hand in: ppt slides online	20% (10% each)
OR		
Material intervention	(replaces only the second paper presentation) Students will build a hybrid material approach to the material they have encountered before; this includes speculative design on possible novel usage, possible alteration of the material; present as much implemented change/ intervention as possible; present ideas of possible future use of this altered/ re- imagined materil. You hand in: ppt slides online	10% (replaces 10% of second paper presentation above)
Own paper presentation	Presentation of self-selected research paper in the field of hybrid craft; each presentation should cover background; field, method, logic of the paper; critical review with clear argumentation; clarity; quality presentation (slides, delivery); ability to answer questions; the goal is to provide the whole class an overview over concept and technology of a specific hybrid craft project as inspiration and background information You hand in: ppt slides online + paper as pdf	10%
Critical reflection (presentation)	Critically reflect on the project underway; use the terminology and means introduced in the first stage of the course; look out for: clarity of presentation and argument, use of terminology, and an effective reflection of the project; this is not "only" a project showing but a critical review of your project that puts it in dialogue with the issues we discussed in class	10%
Final project	Crafter presentation, clarity and ambition of the concept; implementation; process (effective work over	30%

	time); each project needs a short YouTube style video (~ 2 min) that explains its nature, evolution, and results You hand in: >10 images of the project in process; >10 images of final project; all development materials (ppts, design docs, sketches); video – all online For PhD: short (2-3 pages) critical reflection paper on project: use ACM template; use course readings as references + reach beyond course assignment (this will be ~1/3 of your final project grade) You hand in: written paper online	
Participation	active in discussions, active in example sessions; active in design meetings, teamwork, homework; activity and engagement in all meetings;	30%

No use of cell phones (including texting) in class.

100-90% = A 89-78% = B 77-64% = C 63- = D

Grading of individual pieces will be in percentage

Late submissions lead to automatic reductions of the grade unless a valid excuse is provided. Any 1 day delay, meaning anything after 5pm of the due day, will have 10% reduced from the grade; any 2 day delay will have 20% reduced, 3 day delays will not be accepted.

The Honor Code of Georgia Tech applies (see http://www.honor.gatech.edu/).

Inclusivity Statement

The Ivan Allen College of Liberal Arts supports the Georgia Institute of Technology's commitment to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the similarities and differences of those who constitute the Georgia Tech community, as well as the necessity of working against inequalities that may also manifest here as they do in the broader society.

References

Adamson, Glenn, ed. 2010. The Craft Reader. Oxford, UK, New York Berg.

Adamson, Glenn. 2007. Thinking Through Thinking Through Craft. Peter Dormer Lecture. RCA/ London, UK.

Glenn Adamson Thinking Through Craft. Berg Publishers, New York, 2007. (Intro/ Chap 1)

- Adamson, G. (2010). Perpetual Motion. Hand + Made: The Performative Impulse in Art and Craft. V. C. Oliver. Houston, TX, Contemporary Arts Museum Houston: 21-27.
- Alfoldy, Sandra, ed. *NeoCraft: Modernity and the Crafts*. Halifax, CAN: The Press of the Nova Scotia College of Art and Design.
- Ashby, Mike and Kara Johnson. 2014 (2002). *Materials and Design. The Art and Science of Material Selection in Product Design.* Elsevier, Amsterdam et al.
- Auslander, P. (2008). Liveness. Performance in a Mediatized Culture. London, New York, Routledge.
- Benford, S. and G. Giannachi (2011). Performing Mixed Reality. Cambridge, MA, The MIT Press.
- Bødker, S. (1989). "A human activity approach to user interfaces." Hum.-Comput. Interact. 4(3): 171-195.
- Bryan-Wilson, Julia. 2012. "Body Craft. Preaching, Performance, and Process." In 40 under 40. Craft Futures, edited by Nicholas R. Bell, 41-50.
 Washington, DC: Renwick Gallery of the Smithsonian American Art Museum.
- Bunnell, Katie. 2004. Craft and Digital Technology. In *World Crafts Council*. Metsovo, Greece.
- Chaiklin, Seth, and Jean Lave. 1994. Understanding Practice. Perspectives on Activity and Context. Cambridge, UK; New York, NY: Cambridge University Press.
- Dormer, Peter. 1994. The Art of the Maker. Skill and its Meaning in Art. Craft and Design. London: Thames & Hudson.
- Dormer, Peter, ed. 1996. *The Culture of Craft: Status and future*. Manchester, UK: Manchester University Press.
- Dunne, Anthony. 2008. Hertzian Tales. Electronic Products, aesthetic Experience, and Critical Design. Cambridge, MA: MIT Press.
- Eglash, Ron. 2004. "Appropriating Technology: An Introduction." In Appropriating Technology: VernaculaPower, edited by Ron Eglash, Jennifer L. Croissant and Giovanna Di Chiro. Minneapolis: University of Minnesota Press.
- Frayling, Christoher. 2011. On Craftsmanship. Towards a new Bauhaus. London: Oberon Books.
- Frayling, C. (1993). "Research in Art and Design." Royal College of Art Research Papers 1(1): 1-5.
- Galey, A. and Ruecker, S. How a Prototype argues. Literary and Linguistic Computing, 25, 4 2010), 405-424.]

- Ingold, Tim Making: Anthropology, Archaeology, Art and Architecture. Routledge, New York, 2013. (chap 1)
- Ingold, Tim The Texility of Making. Cambridge Journal of Economics, 34 (2009), 91-102.
- Ingold, T. and E. Hallam (2007). Creativity and Cultural Improvisation: An Introduction. Creativity and Cultural Improvisation. E. Hallam and T. Ingold. Oxford, New York, Berg: 1-24.
- Itten, Johannes. 1975. Design and Form: The Basic Course at the Bauhaus and later (revised edition). New York, NY; Cincinatti, OH; Toronto, CAN: van Nostrand.
- Karana, Elvin, Owain Pedgley, and Valentina Rognoli On Materials Experience. *Design Issues*, 31, 3 (2015), 16-27.
- Kari Kuutti, and Liam J. Bannon. 2014. The turn to practice in HCI: towards a research agenda. In Proceedings of the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 3543-3552.
- Keller, Charles, and Janet Dixon Keller. 1994. "Thinking and Acting with Iron." In Understanding Practice. Perspectives on Activity and Context, edited by Seth Chaiklin and Jean Lave, 125-144. Cambridge, UK; New York, NY: Cambridge University Press.
- Laughlin, Zoe and Philip Howes. 2013. The Sound and Taste of Materials. In *Materials Experience. Fundamentals of Materials and Design*, edited by E. Karana, O. Pedgley and V. Rognoli, pp. 41-49. Elsevier Science & Technology, Amsterdam, NL
- McCullough, M. (1998). Abstracting Craft: The Practiced Digital Hand. Cambridge, MA, MIT Press.
- Niedderer, Kristina, and Katherine Townsend. 2010. Craft Research: Joining Emotion and Knowledge. In *Design and Emotion 2010*, edited by J. Gregory, K. Sato and P. Desmet. Chicago, IL: IIT.
- Nithikul Nimkulrat Hands-On Intellect: Integrating Craft Practice into Design Research. International Journal of Design, 6, 3 (2012), 1-14.
- Oliver, V. C. (2010). Craft Out of Action. Hand + Made: The Performative Impulse in Art and Craft. V. C. Oliver. Houston, TX, Contemporary Arts Museum Houston: 11-21.
- Oliver, V. C. (2010). Hand + Made. The Performative Impulse in Art and Craft. C. A. M. Houston. Houston, TX; New York, NY, D.A.P. Distributed Art Publisher.
- Polanyi, Michael The Tacit Dimension. Doubleday & Co. Inc., Garden City, NY, 1966. (chap 1)

- Ratto, M. Critical Making: conceptual and material studies in technology and social life. The Information Society: An International Journal, 27, 4 2011), 252-260.
- Richards, M. C. (1966). Centering. Middletown, CT, Weslyean University Press.
- Risatti, Howard. 2007. A Theory of Craft. Function and Aesthetic Expression. Chapel Hill: University of North Carolina.
- Schechner, R. (2003). Performance Theory. New York, Routledge.
- Schechner, R. (2002). Performance Studies. An Introduction. Second Edition. New York, London, Routledge.
- Schifferstein, Hendrick N.J. and Lisa Wastiels. 2013. Sensing Materials: Exploring the Building Blocks for Experiential Design. In *Materials Experience. Fundamentals* of *Materials and Design*, edited by E. Karana, O. Pedgley and V. Rognoli, pp. 16-26. Elsevier Science & Technology, Amsterdam, NL.
- Schön, Donald A. Educating the Reflective Practitioner. Toward a Design for Teaching and Learning in the Professions. Jossey-Bass, San Francisco, 1987. (chap 2)

Sennet, R. (2008). The Craftsman. New Haven, CT; London, UK, Yale University Press.

- Wiggers, N. G. (2010). Craft Performs. Hand + Made. The Performative Impulse in Art and Craft. V. C. Oliver. Houston, TX, Contemporary Arts Museum Houston: 27-33.
- Zuo, Hengfeng, Tony Hope and Mark Jones. 2013. Tactile Aesthetics of Materials and Design. In *Materials Experience. Fundamentals of Materials and Design*, edited by E. Karana, O. Pedgley and V. Rognoli, pp. 28-37. Elsevier Science & Technology, Amsterdam, NL.