The View Beyond the School: Designing Design

Author   Denise A Heckman
Associate Professor, School of Design, Syracuse University

Design in academe

It could be argued that the Bauhuas model is the grandfather of all contemporary design education; it is certainly the first school of design that remains influential. In a relatively short time the school was operational, spanning just 14 years (1919 to 1933), it had had many changes in leadership and vision. In 1930, when Mies van der Rohe assumed leadership and transformed it into a private school, supporters of Hannes Meyer, the previous director (1928 – 1930), and an avowed Marxist were not allowed to attend (Fiell, P, 2006, p7) It can be argued the longevity can be attributed to two distinct artifacts; The first is the curriculum wheel developed by Walter Gropius beginning with general materials studies and moving inward to building (construction and engineering) as the student progressed through the third year. The second artifact is a visual style could be described as less is more, rectilinear, form giving that translates into both two and three dimensions.

Manufacturing of consumer objects and furniture in the 30's was still in its infancy when the Bauhaus celebrated the formal language of industry over decoration but the second school of design to hold a place of historical influence on design education. The Ulm School of Design founded in 1953 by Inge Aicher-Scholl, Otl Aicher and Max Bill. The focus on a material culture and celebration of manufacturing over ornament is directly inspired by the Bauhaus however, Ulm's unique focus on art and science integration as well as systems thinking in manufacturing was evident in the interest in the incorporation of design into industry.(The Ulm (Fiell, P, 2006, p36)

Design as a profession

In 1941 Raymond Lowey appeared on the cover of Time Magazine and the arrangement of objects in the background tell a story about the role of design and its connection to the average consumer.

Fig.1 Designer Raymond Lowey

Beginning with cars, boats, and trains at the top, household consumer items like refrigerators and furniture appear in the middle, followed by toothbrushes and the famous Lucky Strikes package. This was a signal that design had become something that the average person will interact with in the home and even when doing something as buying a pack of cigarettes. Only a decade later, in the 60's, the profession of design is a mainstream occupation so much so that the American television show Bewitched portrays Darin Stephens as an advertising executive, complete with a drafting table and advertisements dry mounted on boards as props. The character was portrayed as an everyman, whose vivacious wife chose to give up a life of supernatural paganism in order to become a housewife. A designer was the chosen occupation to represent had workaday everyman of suburbia. Did anyone wonder where Darrin learned it all, could he have been trained by a Bauhaus disciple, possibly a German expat in Chicago?

Identifying the boundaries of a design curriculum

The skills required for an entry level designer are evolving at a rapid pace and, at first glance, we can attribute this to increased use of technology by both the designers and the end users. Looking deeper, there are other important considerations when attempting to understand expectations of industry for an entry level designer if we are to develop a curriculum that will educate design leaders who will practice far into the future.

When the September 2015 issue of the Harvard Business Review used the term "Design Thinking" on the cover it signaled the arrival of the phrase (and subsequently the concept identification) into a colloquial business lexicon. In the article, Jon Kolko suggests that one of the common principles of design is to allow people to interact with technologies and other complex systems in ways that are simple, intuitive, and pleasurable (Kolko, no date). The emphasis on a broad definition of complex systems, rather than simply technologically reliant systems, is an important consideration in the development a curriculum that is to prepare an emerging design professional whose career will surely outlive any project that is investigated in a contemporary classroom. Klaus Krippendorff, Gregory Bateson professor for Cybernetics, Language, and Culture and a1954 alumni of the Ulm School of design introduced a taxonomy of design with the chart, "trajectory of artificiality" (!)diagram shown below.

During a 2012 lecture at Konstfack in Sweden, Krippendorff begins with an introduction the diagram by reminding us that he has educated by the Ulm School where products we to have utility, functionality, and universal standards but ends the statement by saying that moving on from the product means moving away from the individual design god. He further posits, that design has become a group activity and therefore there is no room for the individual.(Krippendorff, 2012) By moving *on and up*, the diagram proclaims that new design is design without form; design where a singular author becomes a series of groups, each with a different notion of success.
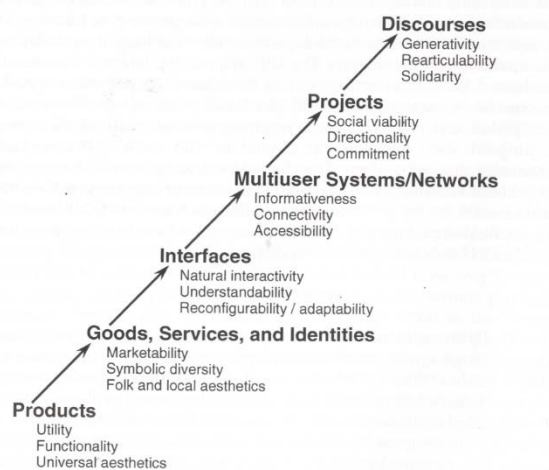
Fig.2 (Krippendorff, 2006 p.6)

If the penultimate state in the activity designated as design (v.) is be one of cultural discourse over object creation or even the of discourse a final deliverable we must ask the question, have the activities as described by Kripendorff and Kolko moved into a new realm. One in which objects no longer exist and creators have become extinct god like creatures replaced by, not only a democratic collective, but a series of disjointed cartels, each with its own goals. Is this a boundary for the activity Krippendorff is identifying beyond what can be called design(n.). Academe can't continue to accept new definitions of design unless it can assure that the object, and its creation, is not being stretched to the point of extinction.

Should activities whose intended outcome is, "cultural discourse", over the "creation of objects, interfaces, and even repeatable systems" become a jumping off point; one where design and design education must split into two distinct organisms in order to maintain the integrity of each? Accepted methods of curriculum development leading to the creation of a holistic design curriculum, independent of the usual distinctions such as, fashion, graphic, product (or industrial), and interface can uncover boundaries.

This holistic definition of design must acknowledge the dematerialization of the tools of design creation first identified in the Bauhaus but retain, as vital, design activities such as object creation, aesthetics (both functional and beautiful), and the role of the user in creative decision making. Identifiable boundaries, consistent nomenclate, and the use of recognized assessment methods is necessary when working within academe but this infrastructure can also be useful to create the structure necessary to foster a culture of inquiry and, perhaps even healthy debate, for both educators and industry professionals.

Developing an entirely new curriculum, one that may require the breaking down of old divisions firmly entrenched in academe is a challenging undertaking for any program, school, of college but we must consider this path when addressing new skills required of an entry level designer. Does interface, (once wed design, now apps) belong to Industrial or graphic design, or should this be a new and unique program? Should wearables originate in product or fashion design programs? Without a common accepted structure how will programs distinguish themselves, how will constructive dialogue happen without a common language?

What are the unique skills needed in a design education

Should software be taught in software classes or should students pick up the skills as they complete practicum classes? Some beginning design students think learning to use software will make them designers just as I would expect that some, exceptionally eager Buahaus students may have expected to work in stone, metal, or clay from day one, but delaying skills-based classes until after the preliminary work was learned is more complicated today.

Teaching software skills is problematic since software today has more to do with learning the most recent digital prototyping app or deciding which of the multitude if rendering platforms should be used to visualize an object and then to generate a physical prototype. (Shedd, 2003) A better way to think about this is to teach digital, best-practice skills that are used in multiple programs and teach students how to choose the ones needed in a specific situation. In this case, my answer to the question at the beginning of this sections is software should be taught both in software classes and in later practicum classes. Students must learn why a vector is chosen over a pixel-based image, why rendering and why 3D rendering software is, and is not, the same as 3D modeling software. Learning to use digital platforms should mean more than just learning software, it is a language and way of making that transcends any set of programs and the digital tools used today will certainly not be the digital tools of tomorrow.

One unique aspect of educating a designer is the importance of internships and a curriculum that offers a strong grounding in digital tools early will make students internship ready earlier in their academic career. A rising sophomore may not be ready to take on complex design tasks but being able to use common software and visualize ideas rapidly will make them useful (and hopefully billable) in many offices. Whether completed during the summer or in place of an academic semester students expect to be able to pursue internships and understanding the role that industry can play in design education will assure that industry and academe work together to prepare young designers.

The following chart (fig1) represents a four-year BFA or BDes program places a strong emphasis on hard skills (digital and visualization) into the first two years.
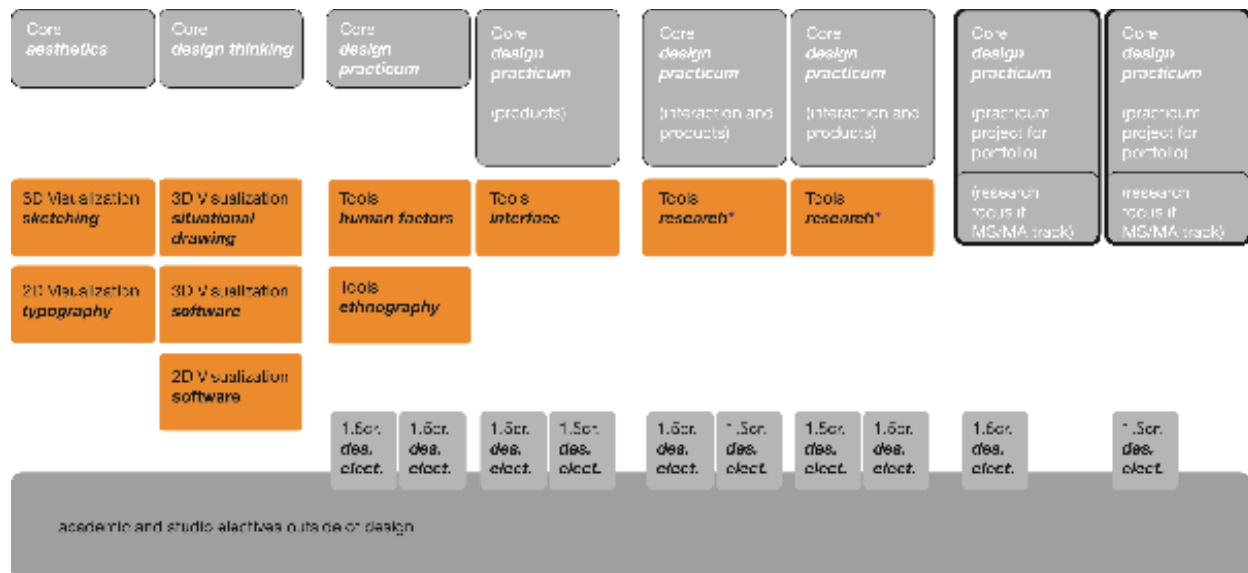
Core aesthetics | Core design thinking | Core design practicum | Core design practicum (products) | Core design practicum (interaction and products) | Core design practicum (interaction and products) | Core design practicum (practicum project for portfolio) (research focus if MS/MA track) | Core design practicum (practicum project for portfolio) (research focus if MS/MA track)

3D Visualization sketching | 3D Visualization situational drawing | Tools human factors | Tools interface | Tools research* | Tools research*

2D Visualization typography | 3D Visualization software | Tools ethnography

2D Visualization software

1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect.

academic and studio electives outside of design

Fig.3 hard skills are shown in orange

The outcome of project-based classes is much stronger if a student has a grounding in digital, visual, and material based hard skills. Initially, the curriculum will add to understanding of hard skills with studio-based classes in aesthetics and design thinking. Initially this need not be redefined for a contemporary audience; Johannes Itten's primary elements of visual form, described as "contrasts in abstract compositions using a limited range of basic forms (the circle, the square, the triangle)." (Dickerson, p18) are one of many known platforms.

Core classes begin to offer project-based design problems in the second year when students have the necessary hard skills to communicate and develop design solutions. The chart below represents the transition in emphasis from acquisition of basic skills and visualization methods to the introduction

of problems.

Core aesthetics | Core design thinking | Core design practicum | Core design practicum (products) | Core design practicum (interaction and products) | Core design practicum (interaction and products) | Core design practicum (practicum project for portfolio) (research focus if MS/MA track) | Core design practicum (practicum project for portfolio) (research focus if MS/MA track)

3D Visualization sketching | 3D Visualization situational drawing | Tools human factors | Tools interface | Tools research* | Tools research*

2D Visualization typography | 3D Visualization software | Tools ethnography

2D Visualization software

1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect. | 1.5cr. des. elect.

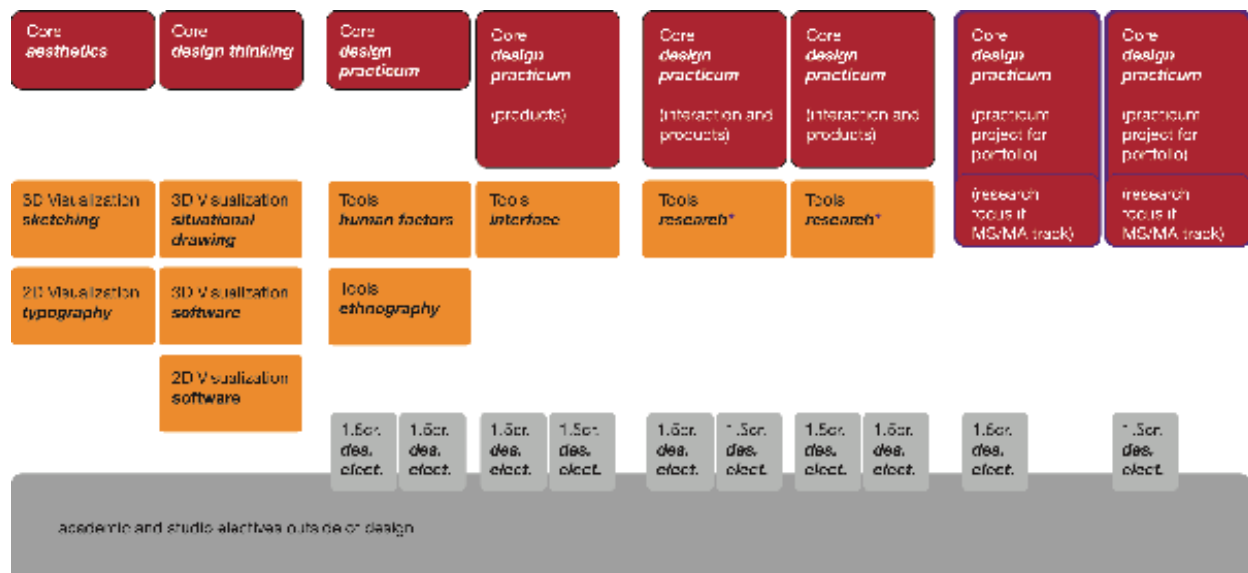academic and studio electives outside of design

Fig.4 core classes are shown in red

Allowing options to customize a degree is more than simply supporting the undecided student or offering a general studies option. Updating curriculum is time consuming and allowing some room for customization in curriculum and can actually increase a students interest and encourage them to take a more active in their personal areas of expertise. "These (flexable) programs can spark students' enthusiasm for learning and sometimes equip them for complicated, cross-disciplinary jobs or emerging career fields. (wsk)

Pedagogically, offering short classes that fit into already approved categories and lasting a half semester can allow faculty to bring their personal research into a class, work with new technologies, or even offer a case study for discussion. Once the hard skills and core classes are in place these classes can be offered as a group, and open to any interested student who has completed the freshmen year. Ideally, students would only take the classes that fit their interests or, possibly, remedial needs. Other ways to leverage the elastic nature of these classes would be to encourage visiting designers, use of professionals as adjuncts, co-teaching, and faculty who don't usually teach in design to offer studio, academic, of even lab classes.
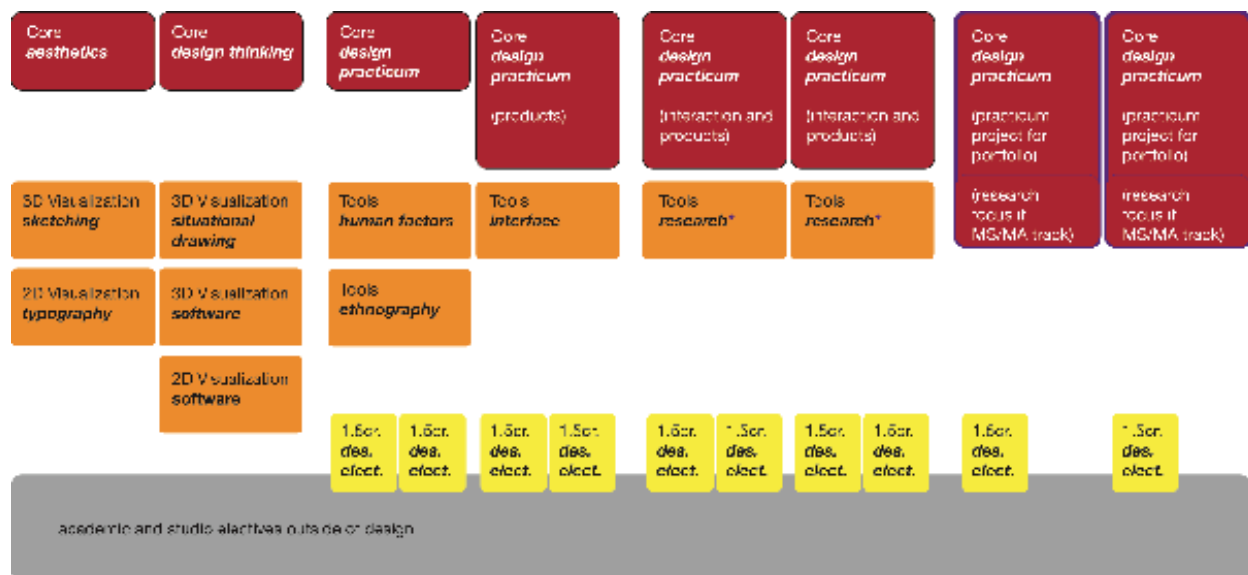

Fig.5 design electives are shown in yellow

A final consideration when building a strong design program is the acknowledgment that a non-terminal (MA or MS) option can serve students who want to complete more research during their undergraduate studies. Concurrent degrees are offered to students completing exchange programs, students thinking about attempting a research focused terminal degree, or simply the more cerebral undergraduate who is interested in a more self-directed undergraduate experience. (Shellenberger, 2010)

The chart below shows how an interested student can decide, as late as the mid junior year to complete a masters degree by taking a combination of undergraduate and graduate classes in the fourth year and completing a fifth year. Faculty are in place and physical resources need not be recreated in order to offer a concurrent graduate degree. Access to graduate students can also be useful to a program for research assistants or even lab monitors in a field that does not always have a contingent of PhD or postdoctoral candidates.
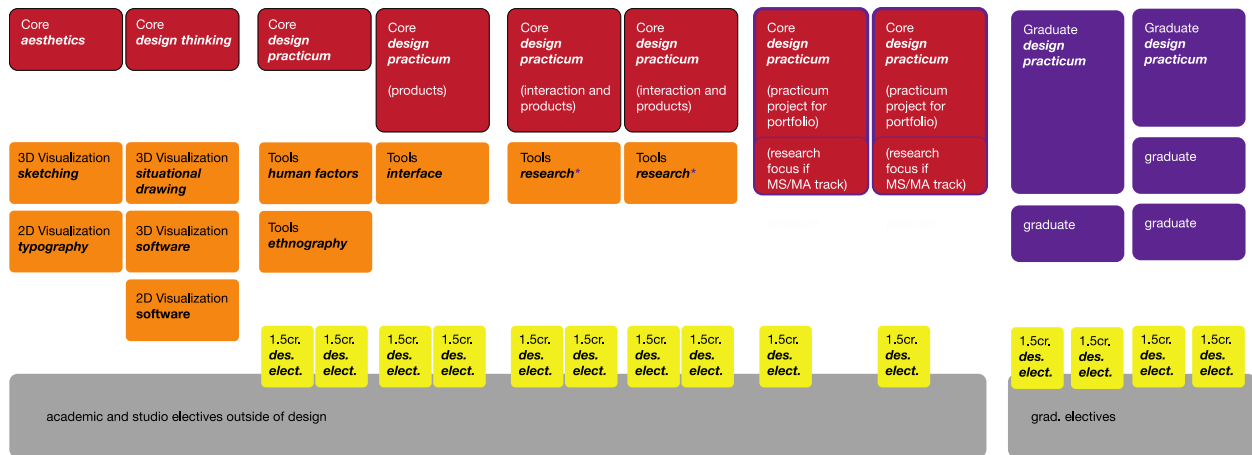
Core
aesthetics

Core
design thinking

Core
design practicum

Core
design practicum

(products)

Core
design practicum

(interaction and products)

Core
design practicum

(interaction and products)

Core
design practicum

(practicum project for portfolio)

(research focus if MS/MA track)

Core
design practicum

(practicum project for portfolio)

(research focus if MS/MA track)

Graduate
design practicum

Graduate
design practicum

3D Visualization
sketching

3D Visualization
situational drawing

Tools
human factors

Tools
interface

Tools
research*

Tools
research*

graduate

2D Visualization
typography

3D Visualization
software

Tools
ethnography

graduate

graduate

2D Visualization
software

1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**

1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**   1.5cr. **des. elect.**

academic and studio electives outside of design

grad. electives

Fig.6 concurrent masters' degree in purple

References

1. Designer Raymond Lowey, Time Magazine, 31 October, 1949

2. Fiell, P, 2006. Monthly review of Architecture Interiors Design Art. Text in English und Italian. 1st ed. Winterthur, ZH, Switzerland: Tashen.

3. ID Konstfack. (2012). Klaus Krippendorff on The Key Concepts of the Semantic Turn, May 2091. [Online Video]. 2 June 2012. Available from: https://vimeo.com/43316950. [Accessed: 10 April 2018].

4. Kolko, J (2016) Design Thinking Comes of age, Harvard Business Review, September 2016, pp. 66-71

5. Krippendorff, K (2006) The Semantic Turn, 1st ed., CRC Press

6. Shedd, J (2003) The History of the Student Credit Hour, New Directions for Higher Education, July 2003, pp. 5-12

7. Shelenberger, S. (2003) Can't Pick a College Major? Create One, Wall Street Journal, November 17, 2017 p.5