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TRAINING STUDENTS TO CRITICALLY ASSESS A DESIGN RHETORIC

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ABSTRACT
Young design students typically lack a depth of understanding when discussing design. Generally they limit themselves to a collection of style platitudes that express how the product makes them feel, such as "that's so cool."
This paper proposes a method of teaching students how to critically assess the rhetorical, or persuasive, nature of design and compose a meaningful, written narrative about it. Students who embrace this method will consistently and meaningfully move beyond style platitudes when discussing design. They will begin to communicate the design's rhetoric.
The assessment method is framed by the product design selection criteria for an exhibit at New York's Museum of Modern Art (MoMA) which was directed by Paola Antonelli during the winter of 2007/8. The selection criteria are composed of the following: 1- Form and Meaning, 2- Function and Meaning, 3- Innovation, 4- Cultural Impact, 5- Process, 6- Necessity.
Using examples provided by the MoMA exhibit and from Antonelli's book *Humble Masterpieces*, students research, contemplate, discuss, analyze and write about how designs communicate.
This paper will deconstruct and discuss MoMA's six design selection criteria. It will show how to use Antonelli's framework to help students to intelligently discuss design. It will provide examples of both MoMA and student writing to demonstrate how the framework is utilized.

Keywords: Design rhetoric, cool, critical, design, MoMA

1 INTRODUCTION

The ancient Greeks were the first people to systematically study the art of persuasion; they called it "rhetoric." Aristotle defined rhetoric as "the faculty of observing in any given case, the available means of persuasion" [1]. Aristotle based his work on how humans communicate with each other. For this exercise, his methods are applied to how objects communicate with humans.
All objects have rhetoric: a persuasive appeal which communicates to an audience on multiple levels. Perina, in his article "Rhetoric in Design," argues that the study of "rhetoric could help increase the level of communication and understanding between object and people [2]."
Contemporary culture has a hard time meaningfully discussing the value of any given object. Gadi Amit, owner of the design consultancy New Deal Design wrote an article for *Fast Company* about the inability of highly educated, influential people to meaningfully discuss design [3]. Design students have the same problem. When discussing a design in class, the ultimate persuasive appeal used by students is "that's sooo cool." This archetype sentence apparently contains all the symbolism, associations, and meanings needed to comprehend the persuasive nature of a design.
Students need a framework to guide their discussions about design and to help them break down and understand why they intuitively feel a product is intrinsically "cool" or "not cool." The goal for this exercise is to get students to think, discuss, and write about a product's rhetoric. Williams, in his book *Style*, states that a method of discussion is required as a "way that lets us go beyond saying how we feel; we need a way to explain how we get those impressions [4]."

2 DESIGN AND MoMA

Clarity in thought and communication is difficult within a subjective topic like design. Design itself is a slippery word. It's function. It's form. It's useful, useable, and . . . beautiful. It's either fast or slow. It's sexy; it's black; it's the new MBA. Discussing design is a journey replete with slippery slopes.

The Museum of Modern Art (MoMA) in New York is the contemporary standard for notable design. Designers and society in general look to MoMA for guidance and knowledge pertaining to which designs are important and why. In the winter of 2007/8, MoMA had a product design exhibit displaying objects that "emphasize the diversity and ingenuity of contemporary design" from around the world.

3 MoMA'S CRITERIA FOR DESIGN SELECTION

Paola Antonelli, curator of Architecture and Design at MoMA, posted her criteria for selecting design work for the exhibit. Each product in the exhibit successfully communicated, to some degree, aspects from each of the criteria listed below:

> **Form and Meaning:** The formal, visual qualities of an object are tied to beauty, an important prerequisite in an art museum, but also an elusive and subjective one. Objects are expected to communicate values that go well beyond their formal and functional presence, starting with the designer's idea and intention. The best design embodies the designer's original concept in the finished object in a transparent and powerful way.
>
> **Function and Meaning:** The appreciation of function has changed dramatically in the last few decades *(beyond the tangible)*. Some objects are designed to elicit emotions or inspiration, and these intangible purposes are also considered part of their functional makeup.
>
> **Innovation:** Good designers transform the most momentous scientific and technological revolutions into objects that anybody can use. With this in mind, curators often look for objects that target new issues or address old ones in a new way.
>
> **Cultural Impact:** MoMA has always privileged objects that, whether mass-marketed or developed experimentally in a designer's workshop, have the power to influence material culture and touch the greatest number of people. Their impact can either be direct – effective the minute they are purchased and used – or unfold over time through the inspiration they give to other designers.
>
> **Process:** Curators don't stop at the object – they also take into account its entire life cycle *(narrative)* as a product. This includes the way it is designed and built and the economy of means in its production, distribution, and use; the way it addresses complexity by celebrating simplicity; its impact on society and the environment; and the way it ages and dies.
>
> **Necessity:** Here is the ultimate litmus test: if this object had never been designed and produced, would the world miss it, even just a bit? As disarming as this question might seem, it really works. Try it at home [5].

4 UNCOVERING THE RHETORIC OF A PRODUCT

Every product has rhetoric. A product's persuasive appeal can be weak or strong, shallow or meaningful. MoMA has taken on the task of seeking out and collecting work which, in their opinion, has significance on contemporary culture. The work displayed in the exhibit focuses on products with promise; designs and designers who are capable of impacting future society.

Identifying and clarifying the rhetoric of an object is difficult. If a product is included in a museum's collection, then onlookers commonly call it "beautiful" or "cool," but typically the product has a much more profound meaning. Using the six selection criteria from MoMA as a guide, anyone can begin to seek, analyze, and discuss the deeper meanings that constitute a product's rhetoric.

To demonstrate this process, the *C2 Solid Chair* by Patrick Jouin (Figure 1) that was displayed in the MoMA exhibit will be analyzed using each of the six selection criteria [6].

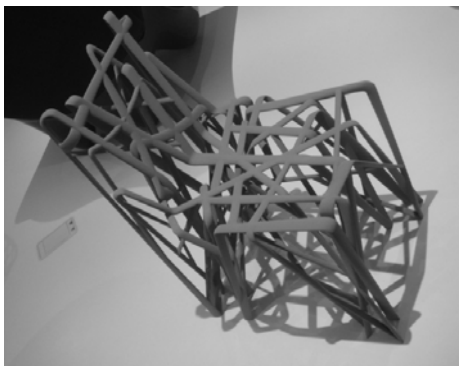

Figure 1. C2 Solid Chair, Patrick Jouin, 2004

Process – The process used to build this chair is called Selective Laser Sintering or SLS. It is an additive rapid manufacturing process that builds three dimensional parts by using a laser to selectively sinter (heat and fuse) a powdered material (in this case a type of nylon material.) The process begins with a three-dimensional computer aided design (3D CAD) file that contains the design which is then mathematically sliced into two-dimensional (2D) cross sections. The part is built a layer at a time when the lasers cross through the powdered material to solidify it.

Form and Meaning – Formally, its beauty is dominated by extreme contrast. It is chaotic, intriguing, and inviting. The chair's overabundance of line creates an engaging visual journey through space, yet the profile remains a generic chair. The material looks soft in detail, yet hard and inflexible overall. It is a visual statement of complexity and simplicity. The designer's statement of purpose is transparent and powerful: to create a full-size chair with a design so unique in form that it would render it impossible to be manufactured any other way than by new rapid manufacturing technology.

Function and Meaning – Yes, it is a chair. Yes, one can safely sit on it. The practical function is apparent and appreciated. However, this product's functional meaning to argue for a new and promising future of mass production. The chair's primary function is to argue against historical modes of production; that it can seat someone is secondary.

Innovation – This object is a celebration of technological progress and promise. It transforms a momentous technology into a completely new method of thought for design and production. For the first time, the designer is free to visualize a three dimensional object and create it without consideration of the heavy constraints of current manufacturing and assembly line techniques.

This technology eliminates tool and mould making, the standard of current manufacturing processes. This new material is organized organically; it can be "grown" to define space in ways that have been impossible until now. In this production method there are no components or sub-components to assemble. Since there is no assembly, interconnections become extinct making glue, nails, and screws unnecessary. This chair would be impossible to cast or mould in traditional techniques, but it is no challenging for the new technology.

Cultural Impact – After a century of dominance, Henry Ford's assembly line production methods are on the cusp of being overthrown. Using this new technology, the design and production of a chair is now akin to writing and printing an e-mail. The assembly lines, factory spaces, and product inventories required to mass produce consumer products are no longer needed. This technology has the power to reconstruct contemporary material culture. Arguably, it returns parts of society to the cottage industries of the pre-industrial revolution.

With advances in three-dimensional (3D) software and printers, every person and every home could design and manufacture personal, unique furniture. The large factories, the standardized parts and materials, the storage, the availability of factory-prescribed products, and the shipping and handling, are all overrun by the individual's ability to print 3D objects, like chairs, in their garage.

Manufacturing processes have come full circle; manufacturing will occur at home. It will be personal again.

Necessity – This new technology, as demonstrated in the design and creation of the *C2 Solid Chair*, has the potential to radically alter the economics of traditional manufacturing processes. Just as the spinning jenny and the mechanical loom ushered in large, mass production factories and processes, this chair has the potential to become the archetype of a new, effective, and highly streamlined manufacturing process that will alter, and hopefully conserve the world's limited resources. Would the world miss it? Not at present, but as a promise of future norms, absolutely.

5 HELPING STUDENTS SEE MORE THAN "COOL."

Many design books, both historical and contemporary, limit the discussion of an object to basic facts: names, dates, clients, manufacturers, manufacturing materials and processes, a few product features, and perhaps an anecdote summarizing the effort that went into the creation of the object. This type of communication about a design is a step above calling an object "cool," but it lacks persuasive discussion clarifying why this object matters.

Paola Antonelli has written a simple, beautiful book called *Humble Masterpieces, Everyday Marvels of Design*. Her book demonstrates how objects have a rhetorical nature. The designs reviewed in the book are common, simple, and certainly not trendy. Facts and features are listed for each object, but the discussion is focused on a clear rhetorical narrative of the importance of the object to society.

In class, students study the writings of two or more of the objects in *Humble Masterpieces.* They discover, underline and tag each the sentences that reflects one of the six MoMA selection criteria.

6 DESIGN AND MoMA

Using MoMA's six selection criteria, students have gained experience in deconstructing the rhetorical narratives of several objects found in Antonelli's book. Now, the students must select an object, research it, discover its rhetoric by using the six criteria, and narrate it convincingly within 250 words.

Chris Witham, a student at Brigham Young University class of 2010, selected the *Radio Flyer* for his object (Figure 2). A breakdown of his narrative begins below Figure 2.

Figure 2. Chris Witham, rhetorical narrative presentation of the Radio Flyer wagon.

Students present the basic facts of the object in as few words possible. The basic facts include designer, title of the object, materials, and manufacturer. For the *Radio Flyer* they are:

Antonio Pasin, Italian, 1896-1990
Radio Flyer, 1927
Stamped steel, rubber tires
Manufacturer: Liberty Coaster Wagon Company

Each final presentation must also include two images of the object: a large closely cropped image showing some detail of the object and a smaller image showing the entire object. See an example of this in Figure 2.

Students then need to compose a narrative for the design in less than 250 words. They often say, "this design cannot be discussed in less than 250 words; it's impossible." It requires the student to get to the essence of the object's design rhetoric by pushing them to succinctly analyze and state the importance of an object to society. Cutting out the fluff and "padding" that frequent many student

papers, the word restriction drives the student to make bold assessments that they previously thought themselves incapable of making.

Following is a transcription of Whitham's writing assignment. The italics represent Whitham's words that are directly related to one of the six MoMA criteria. Following each italicized section, the corresponding criterion is identified in parenthesis.

> At the age of 16, Antonio Pasin moved from the family cabinet business in Italy to New York. Eager to start his own business, Pasin saved money from odd jobs and bought some used woodworking equipment. He began building wooden wagons during the evening and selling them during the day.
>
> By the twenties, Pasin had created the Liberty Coaster Wagon Company and *wanted to use the innovations of the industrialized car manufactures to build and sell quality children's toys*. [Innovation]
>
> He created the first steel design and named it the Radio Flyer. The look of the wagon was very similar to the one we still see today. *The design was versatile, with the hinged handle allowing for pulling the wagon, or riding inside and steering. It also reflected the sleek industrialized look of the times.* [Function and Meaning]
>
> The design was deliberate simplicity at its best. Using only four wheels and a basket, the *wagon took the basic idea of any four-wheeled vehicle and reduced it to the most essential elements. The result was a wagon that could easily substitute as anything in a child's imagination.* [Form and Meaning]
>
> The *Radio Flyer still stands as a celebration of a child's purest creativity and imagination.* [Cultural Impact]
>
> The company still exists today and *owns about 70 % of the market share for wagons, and still sells the same product that Antonio Pasin created over eighty years ago.* [Necessity]

Following are comments to clarify how Whitham's words incorporate MoMA's criteria. The quotes within these comments are taken directly from MoMA's criteria definitions.

Innovation: "Good designers transform the most momentous scientific and technological revolutions into objects that anybody can use." This wagon successfully incorporates the revolutionary advances of the auto industry into the toy market.

Function and Meaning: The wagon works well as a wagon, but it also functions "to elicit emotion" and "inspiration" in its user. It's persuasive in promoting the notion that toys should also reflect the values, methods, and materials of the modern industrialized world.

Form and Meaning: The wagon is so simple that it's formally beautiful. However, it is also meaningful. "Objects are expected to communicate values that go well beyond their formal and functional presence". This wagon can become anything in a child's imagination. Its formal beauty is transferable. It can be big or small, fast or slow, or whatever is needed by the user's imagination.

Cultural Impact: Does this wagon "have the power to influence material culture and touch the greatest number of people?" This product has spawned a number of competing products hoping to imitate its success. Finding a method to stimulate a child's creativity and imagination is the goal shared by many companies making children's products. The staying power of this product arguably demonstrates that most toys fail in this area. In a world where toys have begun targeting specific activities and children, the generic simplicity of this product calmly continues to be significant to both the emerging and established generations.

Necessity: "Would the world ever miss this object?" Markets are very good at pushing unnecessary products out of existence. A product that has been sold in its nearly original form for 80 years demonstrates that it would absolutely be missed. The car companies that inspired this product certainly can't claim the same longevity for one of their products.

Process: Notice that even though Whitham did not address this topic, it's absence did not diminish the narrative of the object. Including it may have added value, but overall, the ability for this student to talk about an object in an intelligent and meaningful way has been established.

7 CONCLUSION

Can a student identify, discuss, and create for him/herself good design? This is what matters. Will they be able to judge what is meaningful in a creative work? Will they be able to assess where its real social value rests? A student's ability to discover and discuss the rhetorical narratives of designs which "express history and contemporaneity… which carry a memory and an intelligence of the future…which express consciousness by showing the reasons why they were made" will allow them to participate meaningfully in discussions involving our object-cantered culture.

They will also discover that "cool" is more than a feeling. They will discover that "cool" is rhetorical. After completing this assignment, students will have a new appreciation for design and meaning. They will also have developed a thoughtful method to assess and discuss any design's value to society.

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