

Training Students in a Method to Critically Assess a Design's Rhetorical Nature

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Biography

He earned his MFA from UT Austin and BFA from BYU. He worked for frogdesign in Germany, USA and Singapore and for Dell Computer in Design & Engineering Management. He then ran his own consulting firm. He has been researching color proportion and teaching ID at BYU since 2005.

The objective of this report is to demonstrate a method to teach students how to critically assess the rhetorical (persuasive) nature of objects and compose a meaningful, written narrative about the design.

Young design students typically lack depth and understanding when discussing a design or an object. Generally they limit themselves to a collection of style platitudes that express how the object makes them feel, like: "that's so cool".

This paper proposes a method of discussing, thinking and writing rhetorically about design that can be taught. When this method of thought is embraced by the students, they consistently and meaningfully get beyond design style platitudes when discussing design. They begin communicating about the design's rhetoric.

The method of training is framed by the published design selection criteria for a product design exhibit, directed by Paola Antonelli, and displayed at New York's Museum of Modern Art (MoMA) during the winter of 2007/8.

This framework, as defined by Antonelli, is composed of six areas of exploration:

1. Form and Meaning
2. Function and Meaning
3. Innovation
4. Cultural Impact
5. Process
6. Necessity

Within these six areas of exploration the students research, contemplate, discuss and deconstruct how objects communicate. Using examples provided by the MoMA exhibit and from the book "Humble Masterpieces" also authored by Paola Antonelli, students discover why some designs resonate over time and become an integral part of our cultural fabric. Conversely, they discover why other designs lack the rhetorical content to sustain cultural meaning over time.

Once the students understand the method, they are asked to demonstrate their new knowledge by selecting a notable object and researching its history. They are expected to discover and construct a rhetorical narrative for the object and present it using 250 words or less and two images.

This paper will explain typical design school student assumptions regarding the communication of design. It will break down and explain the components of the methodology, and provide examples of both MoMA and student writing to demonstrate how the framework is utilized.

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Abstract

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Keywords: Method of Writing, Rhetorical Nature of Design, Cool, Critical Assessment of Objects

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" (Larson 2001). Aristotle framed his work based on how human's 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 a number of 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" (Perina, 2006).

Contemporary culture has a hard time discussing in any meaningful way the value of any given object. Gadi Amit, owner of "New Deal Design" a leading design consultancy in the world, wrote in an article for *Fast Company* about the inability of highly educated, influential people, to discuss design in a meaningful way (Amit 2009). Design students have the same problem. When discussing a design in class, the ultimate persuasive appeal that is repeatedly stated over and over is: "like, that's sooo cool". This is the archetype sentence which contains all symbolism, associations and meanings needed to comprehend the persuasive nature of a design. Well, what's cool?

Students need a method to talk about an object, to break down and understand why they intrinsically feel an object is "cool" or not. The goal for this exercise is to get students to think, discuss and write about an object's rhetoric, its persuasive appeal to society. Williams, in his book *Style* states that a method of discussion is required, a "way that lets us go beyond saying how we feel; we need a way to explain how we get those impressions" (Williams, 1990).

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 less, it's more, and it's a bore. It's

function, it's form; it's useful, useable andbeautiful. Esslinger says it's emotional in his book *Form Follows Emotion*. Engineers design, but want a stylist to help out. It's artsy, but crafty; it's either fast or slow. It's sexy, it's black, and it's the new MBA. In contemporary culture, it's synonymous for "Cool". Discussing design is a journey replete with slippery slopes.

MoMA, the Museum of Modern Art in New York, is the contemporary standard for things notable in the design world. Designers and society in general look to MoMA for guidance and knowledge on what designs matter and why they do. 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. The exhibit was directed by Paola Antonelli, the curator of Architecture and Design at MoMA.

3. MoMA's criteria for design selection

Paola Antonelli, posted her criteria for selecting the objects she did for the exhibit. Each object in the exhibit successfully communicated, to some degree, aspects from each of the criteria listed below, and thus persuaded Antonelli to include it in the museums collection (Antonelli, 2007):

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.

4. Uncovering the rhetoric of an object

Every object has rhetoric. An object's persuasive appeal can be weak or strong, meaningful or shallow. MoMA has tasked itself to search for and collect objects, which in their view, have significant effect on contemporary culture. The designs from this exhibit focused on objects of promise, designs and designers who have the capacity to impact future society.

Identifying and clarifying the rhetoric of an object is difficult. Because an object is included in a museum collection, it is commonly called beautiful or "cool", but typically there are deeper meanings in the objects. Using the six collection selection criteria from MoMA as a rhetorical guide, anyone can begin to search for, analyze and discuss the deeper meanings of the rhetorical nature of an object.

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

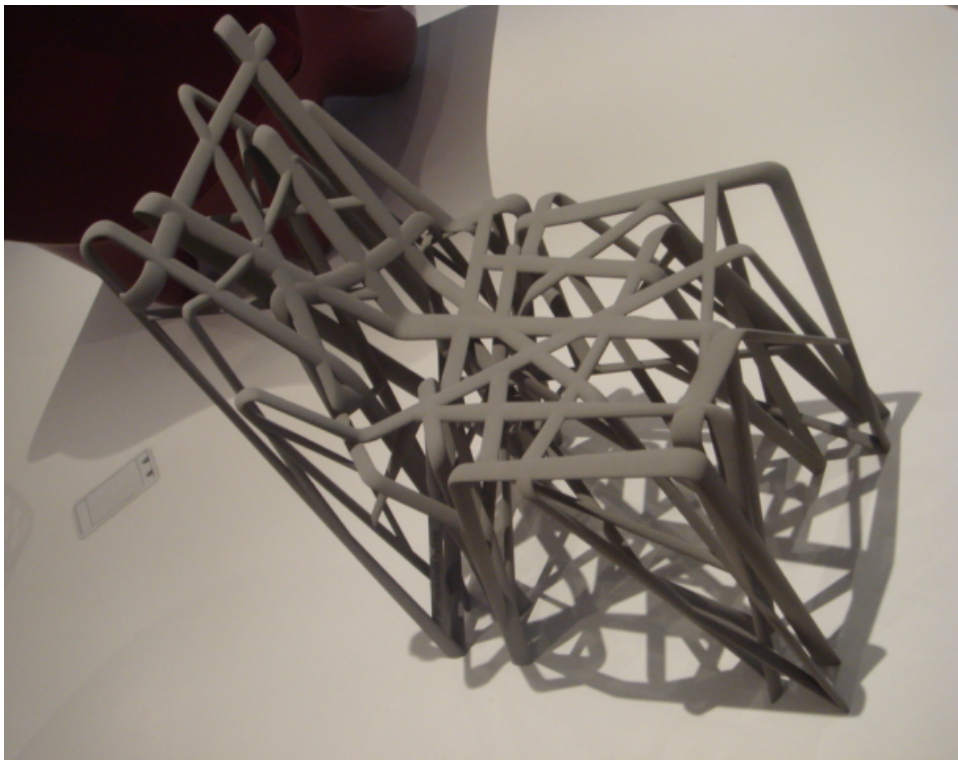


Figure 1. C2 Solid Chair, Patrick Jouin, 2004

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 from the designer which is 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 and solidify it.

This process was created to rapidly create small prototypes of parts that will eventually be manufactured in other materials and processes. As the economy of this technology becomes prevalent, their uses among engineers for prototypes will

dissipate into common use by the public. As this occurs, production and distribution of product will radically change and impact society and the environment.

Form and Meaning – Formally, its beauty is dominated by extreme contrast. It is chaotic, intriguing, and inviting. The visual journey through space is engaging, yet in direct contrast to its overabundance of line, 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, his idea to create a full size chair, so unique in form that it would be impossible to make through traditional manufacturing methods and forces the use of new rapid manufacturing technology, is transparent and powerful.

Function and Meaning – Yes, it's a chair, yes one can safely sit on it. The practical function is apparent and appreciated. However, this object's functional meaning is a vehicle to argue for a new and promising future using rapid methods of mass production. This chair's primary function is as an object of persuasion. That one can sit on it is secondary.

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

This technology eliminates tool (mold) making and its inherent concerns with draft and undercuts. Thus material can be organized organically, or grown, to define space in ways that have been impossible until now. Since there are no tools, there are no components or sub-components to assemble, thus fit issues and interconnections become extinct, as do glue, nails, and screws. This chair would be impossible to cast or mold in traditional techniques, but is hardly 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 replaced. Using this new technology, the design and making of a chair is now akin to writing and printing an e-mail. The large assembly lines, factory spaces and product inventories required to produce mass consumed objects are no longer needed. This technology has the power to remap contemporary material culture. Arguably, it returns parts of society to the cottage industries of the pre-industrial revolution.

With these advances in three dimensional (3D) software and printers, every person, and every home, could design and manufacture personally unique furniture. The large factories, the standardization of parts and materials, the storage and availability of factory prescribed products, the shipping of goods and materials over long distances, are overrun by the individual's ability to print objects, like chairs, in their garage. Manufacturing processes have come full circle, manufacturing will occur at home, it will be personal again.

Necessity – This technology, as demonstrated in the design and creation of the *C2 Solid* chair, has the potential to radically alter the economies of traditional manufacturing processes. The process frees the designer to radically re-define space in unimagined ways leading to new thoughts in form and use of everyday objects. Just as the spinning ginny and mechanical loom ushered in large, mass production factories and processes, this chair has the potential to become the archetype of a new highly streamlined and efficient manufacturing process that will conserve the world's limited resources. Would the world miss it? Not at the moment, but as a promise for the future norms, absolutely.

5. Uncovering an objects rhetoric, helping students see more than “cool” – application of the method in a classroom setting

Many design object books, both historical and contemporary, limit the discussion of an object to the basic facts; names, dates, client or manufacturer, manufacturing materials and methods some product features and an anecdote or two surrounding the effort to make the object. Communicating about a design in this manner is a step above calling an object “cool”, but it lacks the persuasive discussion clarifying why this object matters.

Paola Antonelli has written a simple, beautiful book called *Humble Masterpieces, Everyday Marvels of Design* that demonstrates how objects have a rhetorical nature. The objects 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 why this object matters in society using topics similar to those listed in MoMA’s selection criteria.

In class, students study the writing for two or more of the objects in *Humble Masterpieces* and underline the sentences or passages that reflect the six MoMA collection selection criteria listed above. Each underlined area is tagged by the student with its corresponding criteria, i.e. “innovation” or “necessity”. As an example of this process, recall the discussion for the *C2 Solid Chair* made above where each of the six MoMA topics were explored and documented in conjunction with the object of study.

6. The assignment, students research, write and present

Using the six MoMA selection criteria topics and objects narratives from Antonelli’s book, the students have combined to deconstruct and map the rhetorical nature for a number of objects. Now, the students must select an object to research and uncover its rhetorical nature using the same method of discovery as discussed above. Next, the students create and write a convincing narrative for their object using less than 250 words.

Selecting the right object to research is important. Preferably, the object will be notable, historic and have an abundance of information available regarding it. Many students select some contemporary “cool” object for which they cannot find much information. It is required that the students use at least two books to supplement their online research.

Chris Witham, a student at Brigham Young University class of 2010, selected the *Radio Flyer* to research and write about (Figure 2). Below figure 2, find the final presentation for the assignment and a full transcription of his text.



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

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 manufacturers to build and sell quality children's toys. 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. 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. The Radio Flyer still stands as a celebration of a child's purest creativity and imagination. 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.



-Phaidon Design Classics (3 volume set)
 -radioflyer.com/history
 -fundinguniverse.com/company-histories/Radio-Flyer-Inc-Company-History

Chris Witham, Jan 27th 2009

Figure 2. Chris Witham, research, writing and presentation of the *Radio Flyer* wagon.

Each student must present the basic facts regarding the object in their presentation in as few words possible. These facts include the designer, the title of the object, construction 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 on the left side of the page and a smaller overall image of the object in the right hand margin (Figure 3).



Figure 3. The *Radio Flyer*, by Antonio Pasin, 1927

Thinking and writing concisely, in 250 words or less, about an object is a common complaint from the students: "This design can not be discussed in less than 250 words, its impossible". Following is a transcription of Whitham's writing assignment. The italicized words represent Whitham's words that are directly related to one of the six MoMA criterias. Following the italicized sections one of MoMA's criterias are in parenthesis to identify what topic he covered.

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" with its audience. Its 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 it's formally beautiful. However, 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 imagination of the user.

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 searching to imitate its success. Finding a method to stimulate

a child's creativity and imagination is the goal of many companies making children's products. Arguably, the staying power of this product demonstrates that most toys fail in this arena. In a world where toys are becoming more specific to a target activity, the generic simplicity of this product calmly continues to matter to both the emerging and established generations.

Necessity: "Would the world ever miss this object"? Markets are very good at cleansing unnecessary product from the system. That a product sells in its nearly original form for 80 years demonstrates that this object would absolutely be missed. The car companies that inspired this product certainly can't claim the same longevity about one of their products.

Process: Notice that Whitham did not discuss the topic of "Process". The absence of this topic did not diminish the narrative for the object. Including it would 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

What makes a good design? In the end, this is what matters: can a student identify, discuss and create for him/herself good design? Will they be able to judge what is meaningful in a creative work and where its real social value rests? Their ability to discover and discuss the rhetorical nature 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" (Antonelli, 2005) will allow them to participate meaningfully in discussions involving our object centered culture.

This method of thinking rhetorically about objects enables students to comprehend that well designed objects have strong persuasive narratives, stories that communicate large amounts of meaningful information quickly and effectively. They will also discover that "cool" is more than a feeling, they will discover that "cool" is rhetorical. After completing this assignment, the students have a new appreciation for the design's history and meaning, as well as a thoughtful method to discuss any design's value in society.

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