

# Observing Time : Employing positivist observation as a bridge to abstraction in Early Design Education

## *Experience, Technology, Speed*

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Much of contemporary design education is predicated on the mythos or generally accepted core narrative of 'a rupture' in western art at the turn of the twentieth century, in the forms of impressionism, post-impressionism and later cubism, as a rejection of renaissance perspectival space, codes of mimesis, and re-presentational realism. This rupture is evidenced in the manner that many design schools operate today, systematically employing the first semesters of education as a period of inculcating students into protocols and languages of abstraction as a means of 'breaking habits' from earlier childhood conventions and ways of seeing the world. This process aimed at opening students to a wider set of visual procedures has in many cases the potential to be seen by some as a type of brain-washing into a series of skills and visual outcomes that are foreign and endorsed by an elitist cultural regime. This paper seeks to demonstrate, that teaching students first as positivist Observers, facilitates a less abrupt or ruptured transition from convention to abstraction in an analogous fashion to the ways in which cultural observation techniques that evolved in the 18<sup>th</sup> +19<sup>th</sup> centuries provoked the 20<sup>th</sup> century avant-garde abstraction. Recent teaching methods will be shown, side by side historical and conceptual tropes, in which students have found abstract outcomes through positivist representations of experiencing nature unfolding in time and speed, exposing students to various digital and analog media processes in the capturing of the world before abstracting reality.

### **The Rupture + Divide**

A common argument amongst twentieth century art critics, most notably trumpeted by Clement Greenberg in his dictum Modernist painting, suggests the step away from representational codes and positivist realism and the informing of disciplinary abstraction was a moment that empowered the agency of artists. Greenberg writes, 'Having been denied by the Enlightenment... [ artists ] looked as though they were going to be assimilated to entertainment ...The arts could save themselves from this leveling down only by demonstrating that the kind of experience they provided was valuable in its own right and not to be obtained from any other kind of activity.<sup>1</sup>' This post dictum of an implicitly understood truth lead to several other means of the making of the abstruse, the complex but most importantly the non-figural. Since which, this mantra has been trumpeted both for its call for disciplinary investigations and for a departure from the figural and positivist emulation of context<sup>2</sup>. It is this period

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1 Clement Greenberg. "Modernist Painting". 1965. Republished in The New Art Ed. By Gregory Battcock. Dalton Paperback. New York 1966. p.102.

2 The departure from rendering the figural and the contextual logically stemmed from an overlapping with the birth and development of the photographic.

of boundary that is often described in the canon as 'the rupture', and as Tim Love describes in his take on architectural education,

*Most core architecture curricula in the United States are predicated on the assumption that new students arrive with cultural preconceptions about design that need to be expunged... A pedagogy based on forgetting and retraining may be linked to the broader influence of neo-Marxist ideology in the American academy. In both literary and art theory, the avant-garde was repositioned as a distinct and important cultural enterprise resistant to mainstream and popular culture.<sup>3</sup>*

Love goes on to point out that within such a framework, the election of a desired architectural education can be seen as a vehicle of 'lifestyle differentiation,' that is to depending on the culture of the curriculum there is a re-wiring and forgetting. It is for these reasons that this step away towards abstract minimalism is also remarkably one of the most divisive, alienating, and exclusionary problems of entering design school today. This outlook can be compounded with the fact that many schools have moved to portfolio-based admission requirements, placing the expectancy on secondary school as the bridge for exposure towards the afore-mentioned western mythos, and inherently rewarding individuals whom had access to secondary school art education. As a further problem, from the point of view of one entering a design discipline, the emphasis on abstraction over observation of reality can provoke the perception that the makeup of the every-day world is not design, a conclusion which has had far-reaching consequences in both the manufacturing of a contemporary field of disillusioned graduate work-force and the alienation of selective parts of the population, whom might otherwise engage the profession if it were not for the need for a rupture.

## Observing Modernity

An alternative history of visual Modernity of the twentieth century, posited by Jonathan Crary in his book, *Techniques of the Observer*, place the onus of invention not on the select few of the twentieth century avant-garde in breaking away from the means of figural realism, but on the change of cultural visual processes that occurred throughout the seventeenth + eighteenth centuries. Periods that were often relegated and simplified to that of a search of positivist and finite 'realism'. In an analogous fashion to the social problems of the academy outlined above, Crary points us to Jean Baudrillard's discussion of Modernity, wherein Baudrillard writes,

*There is no such thing as fashion in a society of caste and rank since one is assigned a place irrevocably. Thus class mobility is non-existent. An interdiction protects the signs and assures them a total clarity; each sign refers unequivocally to a status. In caste societies, feudal or archaic, cruel societies, the signs are limited in number, and are not widely diffused, each one functions with its full value as interdiction, each is reciprocal obligation between castes, clans or persons. The signs are therefore anything but arbitrary. The arbitrary sign begins when, instead of linking two persons in an unbreakable reciprocity, the signifier starts referring to the disenchanting world*

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<sup>3</sup> Love, Tim. "Kit of Parts Conceptualism." *Harvard Design Magazine*, vol. 13, 2003.

*of the signified, a common denominator of the real world to which no one has any obligation.*<sup>4</sup>

Creary goes on to explain that for Baudrillard 'Modernity is a bound up in the capacity of newly empowered social classes and groups to overcome the 'exclusiveness of signs'... Imitations, copies, counterfeits, and techniques to produce them were all challenges to the aristocratic monopoly and control of signs<sup>5</sup>.' When read quickly, this might be conceived of as a call for fake-it-until-you-make-it through emulation of fashionable style, which would read as a further reasoning for immediately encouraging a student to jump into the deep water of elemental and minimal based assembly of abstraction. Rather, Crary demonstrates that it was during this period of the 17<sup>th</sup> and 18<sup>th</sup> century that the status of the individual changes from that of a spectator to that of a positivist observer, as can be seen in many achievements of 18<sup>th</sup> century observers such as Eadweard Muybridge, and Abbot Handerson Thayer whose experiments in observing and experiencing phenomena lead to the ability to deconstruct the world into simpler and more manageable parts of vision. It is during this period that the development of technologies of vision were released allowing the public to be the observer of the procedures of image capture whereby the machinery behind creativity became visible.

## Tools for Observation

It could be argued that first-year of architectural education should be just this, expanding the vantage point to include the student as an observer of the process of viewing, in preparation to occupy the chair of the maker. In the seat of the observer, they are merely drawing what they know but with rigor through conforming to the practice of viewing. One example of this phenomena would be the advent and employment of the *camera obscura*, a sealed dark room occupied by one or select observers, in which via a pin-hole the image of the exterior was projected on the interior. While some historians might regard this along with photography as technological aid to the artist, de-mystifying the mystery of the hand drawing, another reading would suggest that this provided a new juridical role for the observer who is 'in-camera.' The space of the camera obscura provided a means for the every-man to reign check on the process of image making, or art creativity. Before this, the vantage point of the painter was the space of the spectator, the camera obscura expanded the vantage point into a space of spectacle and a space to be occupied and verified by an observer.

As an analog for in-camera observance, on the first day of Rhode Island School of Design's first core studio in undergraduate and graduate architecture, students were introduced to a process of drawing by examining a phenomenon developing pictorial image in front of them and asked to draw and simulate that occurrence as an observer. In this case the camera was not a chamber but a glass ball jar, and in lieu of light to paint the surfaces of wall, ink was used to deploy a drawing in volumetric space. Students were asked to introduce the ink as if they were cutting the eye-hole within the water's surface using a pipet, allowing ink to flood and dance in equilibrium into the jar as a suspension. Asked to watch the process of the ink and record in video and still. Immediately thereafter students were asked to produce a drawing of what they observed of the ink suspension using charcoal, a familiar positivist task for even those without a background in foundation art. Little direction was given and naturally a

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<sup>4</sup>Jean Baudrillard, *L'échange symbolique et la mort* ( Paris, 1976), p 78 *Simulations*, trans Paul Foss ( New York, 1983) pp. 84-85.

<sup>5</sup> *Techniques of the Observer: on Vision and Modernity in the Nineteenth Century*, by Jonathan Crary, MIT Press, 2012, pp. 12–13.

30-minute drawing became an exercise in figural representation of the ink in silhouette and density mainly in elevation, while some focused on more subtle effects; a predominantly visual exercise. Over the next weeks, the subject matter remained consistent from the initial recordings and memories, while the objective means developed for producing recordings around the subject changed. Students were asked to translate their figural drawing, directly into a drawing on the same size paper altering media, from a soft charcoal to a hard pencil. The observations were asked to be recorded using only straight lines, arcs, and circle or that which could be constructed from straight lines. The limitation forced the student to focus more on the nature or process of how the ink built and replicated and detach from the visual. The consistency of the subject matter and change of the filter provided students insight for the capability of the line as a different material to render a given condition.

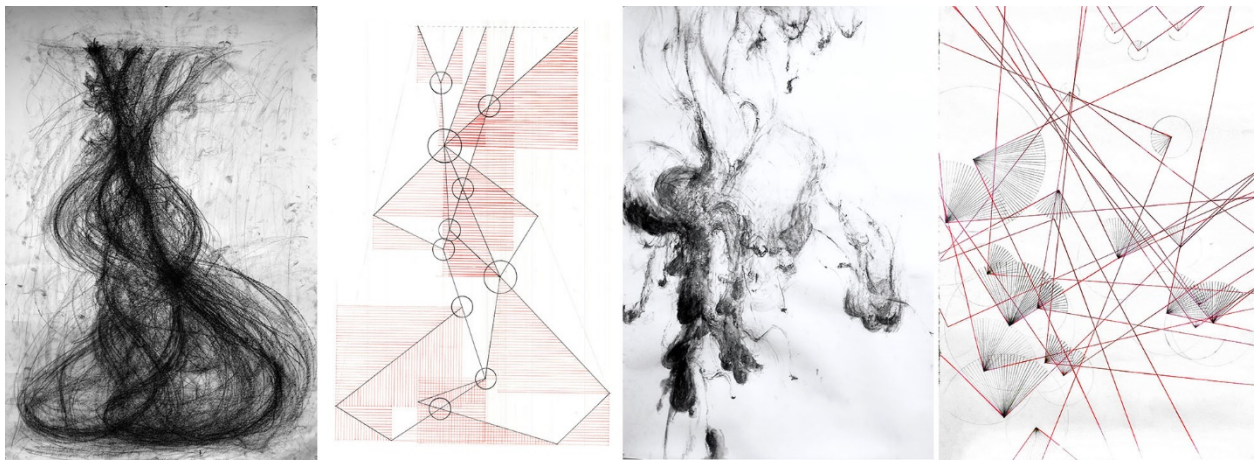


Fig 1<sup>6</sup>

Students move through multiple media + dimensions focused around the same subject matter, next employing a cube of basswood from which sticks and thread could be hung to represent the ink in a minimal no lines and maximum no of lines, bring a conversation to a different method of how tension versus compression was apparent in the suspension within the liquid as well as moving the conversation into 3D. In all situations, due to the limitations of the materials present the focus became the means of how to observe and replicate the nature of the ink devoid of its initial visual appearance.

## Conform to Nature

As a first foray into the digital waters, it became apparent that comparisons to the bodily space of the camera-obscura were more clear within the third dimension of the computational model space. Analogous to the physical modeling exercise of the basswood in cube space, students were asked to create four digital models of the solution using lines of various weight and quantity, to both determine a series of stills that re-created the observed nature of the ink but also for the creation of a video. While the stills and volumetric videos provided further graphic and silhouette architectural comparisons to the subject matter, perhaps the most interesting were the time-based construction videos the students were asked to produce that demonstrated the ink nature of move and grow within the space of the water suspension. The replication, assemblage and aggregation of linear network, allowed the students

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<sup>6</sup> Image Credit, Danni Yang, M.Arch 2019 + Zi Zhou, B.Arch 2020 – Rhode Island School of Design

to be able to both employ means of connections apparent in their physical models which by procedural nature needed to employ a systematic means of aggregation as the students were asked to work with 10, 100, 1000, and 100,000 lines which could not be placed individually, yet would also be questioned if they were digitally arbitrary. This work slowly matured back to a tensegrity model, which was programmatic space and a situation later in the semester, but it was from these early exercises that the students unwittingly discovered formal abstraction techniques based on subjective matter. It was in these exercises where the students were unknowingly within the space of the ink as in-camera judging the movements of the media and deciding what could and could not be rendered in spatial and media comparisons. Rather than *spectare* or latin for to look, students were learning *observare* to conform their actions with and look past re-presenting spectacle via procedural mimesis<sup>7</sup>.



Fig 2<sup>8</sup>

## Conform to Space

Another type of conformance to the real might be demonstrated through the formal kinship between the Camera Obscura and the earlier practice of quadratura developed by late renaissance early baroque painters. In this 17<sup>th</sup> century practice, popularized by Andrea Pozzo a stationary point would be offered through which the anamorphic decoration of a given room would come into specific visual realism. While Cary might suggest that the inability for the individual to occupy the vantage point forcing them to consider the means of realism while in camera is what is offered to push beyond the spectacle, it might be argued that due to the parallax induced by the spectacle of certain decorative projects these would qualify as places to observe educationally the mechanisms of vision. An example of such would be the Corridor of San Ignazio in the Church of the Gesu designed by Pozzo, wherein the corridor when seen from its center renders a flat ceiling, but when witnessed closer to its ends, where the entrance lies, the viewer becomes very aware of the high distorted forms of the architecture cascading over the surface. It is in the process of motion that the eye renders the spectacle and then becomes invested in understanding the nature of the gaze present for the distortions.

A project that was run for students, again within RISD's architecture program this type not in studio but in the required representation class, would be that of still-life projection. In this exercise students are asked to construct a still-life at their desks using flotsam made from bottles and geometry; which was in

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<sup>7</sup> Ibid

<sup>8</sup> Image Credit, Elva Dong – Pratt Summer DICE Program 2017



turn used as a means of understanding and producing the architectural drawing operations of orthographic projection and sectioning. The students are asked to first render a perspective of the still-life using white pencil and dark coal on paper to demonstrate how light and dark plays the third dimensional role of the surfaces. Following this, the students are asked to transfer the drawing of the still-life onto the still-life itself so that it can be legible from a designated stationary point. This exercise, achievable through digital model, or the use of a physical projector, or some combination of the two induces the students into motion and imbalance in evaluating both the third dimension of the object and their specific understanding of the image in the mind. In that motion the student is constantly questioning the very nature of vision and re-conforming to the distortions of the surface present.

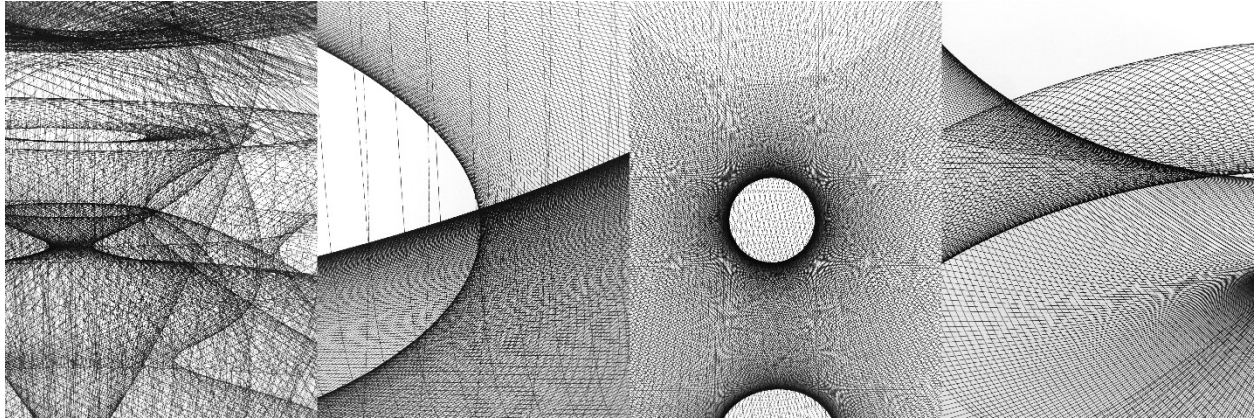


Fig 3<sup>9</sup>

## Conclusion

These methods demonstrate two different means of observation, both of which stem and build upon a student's prior abilities to seek to conform to what they see. One procedure stems from a process of emulation within the absence of the possibility of fidelity; the second is to draw what we see despite changes of the formal circumstances of the picture plane, that prompts a spatial awareness and accuracy. In both situations, the individual student seeks to use their latent abilities to conform to a process rather than to mimic the visual tracery. As a closing idea this familiar anecdote of a student drawing ink will serve us, 'I'm doing it this way because it looks more authentically real to me.' Observation particularly in time, takes the student out of the realm of the visually real and incentivizes him or her to find other means for conformance to the real or thing. In his book, Crary offers several qualifiers that the idea of a 'realistic effect' is highly subjective based on the standing point of a given generation and era, and one era's realistic understanding cannot be mapped onto another. I offer that a student's visual acuity of 'realism' is similar to that of humanities adaption throughout the period of modernity, and that it is our need as instructors to not only demonstrate new technical means for producing 'realism' but new techniques for observing space, time and phenomena.

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<sup>9</sup> Image Credit, Sierra Clarke, Joshua Jian Pierre, Chris Garcia, Grace Rodriguez – Pratt Summer DICE Program 2017