Non-Use, Craft, and Work Infrastructure in Art and Design Practice

Jonathan Lukens

University of Tennessee School of Art Knoxville, TN 37996 jon@infopollen.net

ABSTRACT

Within traditional practices of art and design, the reception of digital tools ranges from the enthusiastic embrace of allegedly new affordances to the abrupt dismissal of "inauthentic" results. This paper raises a series of questions which try to unpack practices of deliberate non-use within art and design. In doing so, it considers the workflow and work infrastructure of artists and designers, and frames issues of craft and an understanding of work infrastructure as essential to the resolution of those questions.

Author Keywords

Non-Use. Art and Design. Craft. Work Infrastructure.

ACM Classification Keywords

D.2.2. Design Tools and Techniques. H.5.2. User Interfaces: Prototyping

INTRODUCTION

As a designer and design educator I've encountered and collaborated with with artists, designers, and art and design students working in a variety of media and at different points in their careers. As new technologies and resultant techniques have been introduced and adopted, I've observed non-use in different contexts. This experience, along with highly informal polling and discussion with colleagues, reveals two noteworthy motivations. These motivations are not mutually exclusive, and non-use is often motivated by a combination of both.

First, choosing analog tools (e.g. pen and paper) over their digital counterparts (e.g. drawing software) can be an attempt to avoid a lack perceived of immediacy. For example, an artist or designer may feel that sketches or initial renderings can be produced more quickly without

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using software. Encapsulated in this motivation is the belief that different media or tools enable different types of thinking, that it is necessarily good to approaching a "design problem" from a variety of angles, and that non-use is therefore part of a larger vocabulary of approaches that also includes use.

Second, analog tools may be chosen because of the aesthetic affordances of materials. For example, drawing on textured paper with ink and a brush might be viewed as superior to using digital tools (e.g. photoshop "brushes" and filters) to simulate similar results. So, while the first motivation involves exploring a space of possible ways of thinking about a subject, the second involves choosing an appropriate substrate, media, or presentation technology. The membrane between these two motivations is obviously very porous, and we may see shifts from non-use to use or vice versa at various points in the design process.

POINTS OF ENTRY

In this section I suggest two initial points of entry to this problem, and call upon two literatures which have not been synthesized as they should be: the study of infrastructure and the study of craft. I believe that the study of non-use within art and design practice may reveal salient issues at the confluence of the study of infrastructure and the study of craft. This, in turn, may reveal points at which definitions of craft and work infrastructure converge and diverge within art and design practice.

Work Infrastructure

The term "infrastructure" does not just refer to mechanical components. Technologies exist as relationships with and between human and nonhuman actors. They include hardware (e.g. pipes, disk drives, photocopier toner), software, socio-technologies, and human operators [3], as well as "socially communicated background knowledge, general acceptance and reliance, and near-ubiquitous accessibility" [2]. These are especially appropriate characteristics, as they are not limited to objects—they include human and nonhuman actors and their dialogue with those objects. These human and social components of infrastructure are just as important as physical components. As Lee, Dourish and Mark argue, infrastructure is "an

underlying framework that enables a group, organization, or society to function in certain ways. [5]"

This greater dialogue between objects, users, and systems is in flux and may include adaptation to those objects, including the possibility of their modification. Treating infrastructure as something purely material poses the risk of eliminating the conceptual, intangible, or ephemeral. Like discussing hardware while neglecting to discuss software, this approach ignores the fact that the things listed above, including social organizations, technologies, affordances and expectations of service, all generate each other. This mutual generation does not require a centralized or deliberative authority [7].

Craft

While not uncritical of some problems of interface that artists and designers may encounter, McCullough regards the use of digital tools as an extension of earlier, pre-digital practices [6]. This characterization stands in contrast with what many artists and designers claim is their motivation for "getting away from," or "off" the computer: that the affordances of the computer come at the price of an estrangement from the affordances of traditional craft.

Non-use may also be motivated by a conflict between representational forms and formalized symbolic representations, or by conflicts between communication and language [1]. Beardon explains these conflicts as arising from differences between creative and technical practices, arguing that ambiguity can be viewed as valued by the former and avoided by the latter. We can see this conflict embodied in the interfaces of popular software used by artists and designers (e.g. Adobe Illustrator, Corel Draw, Adobe Photoshop, GIMP): They present the user with a menu of specific possibilities-often essential formal elements, such as circles or lines—and the user may proceed to work toward a result by generating and modifying those rudimentary elements. While this process may afford the generation or highly complex renderings, the design of the interface may present artists and designers with a sort of conceptual bottleneck. A user (or non-user) may feel that the interface demands they conceive of what they wish to create as composed of a set of relationships between the primitive forms or properties that the interface initially presents.

Initial Synthesis

Our first point of entry into questions of non-use in art and design education would involve defining and diagramming the work infrastructure of our subjects, and then determining how different conceptions of craft may reconfigure or reinforce that diagram. This activity might contextualize different scenarios of non-use. It also allows

us to eliminate non-use that might be forced on a user by some sort of infrastructural inversion or breakdown [8]. For example, electing not to use a computer to create an illustration because non-digital methods afford other aesthetic choices and choosing not to use a computer to create an illustration because a bug in my illustration software causes my computer to freeze are two distinct scenarios. These are also different from non-use as a form of refusal or protest. For example, an artist or designer may elect not to use digital tools as a sort of protest against the radical monopoly of those tools [4].

CONCLUSION

Defining non-use among artists and designers is contingent upon definitions of craft, and upon the ways that users (or non-users) and their tools co-construct their work infrastructure. I have sketched an initial approach to this inquiry above. Next steps involve investigating how different conceptions of design, with different ideas about the scope of design action, the way tools and their users may or may not be considered distinct, and the agency of materials, may all conjure different conceptions of non-use to form.

REFERENCES

- 1.Beardon, C. The Digital Bauhaus: aesthetics, politics and technology. Digital Creativity 13(4) 169-179. 2002.
- 2.Edwards, P. "Infrastructure and Modernity," in Modernity and Technology, eds. Thomas J. Misa, Philip Brey and Andrew Feenberg, (Cambridge: The MIT Press, 2003), 188
- 3.Egan, M. "Anticipating Future Vulnerability: Defining Characteristics of Increasingly Critical Infrastructure-like Systems," Journal of Contingencies and Crisis Management 15, no. 1 (2007): 6.
- 4.Illich, I. Tools for Convivality (New York: Harper & Row, 1973), 52-54.
- 5.Lee, Charlotte P., Paul Dourish, and Gloria Mark. "The Human Infrastructure of Cyberinfrastructure." In Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work, 483–492. CSCW '06. New York: Association for Computing Machinery, 2006.
- 6.McCullough, M. *Abstracting Craft: The Practiced Digital Hand.* MIT Press, Cambridge, MA, 1998.
- 7.Star, S.L. and Bowker, G. "How to Infrastructure," in The Handbook of New Media: Social shaping and social consequences of ICTs, eds. Leah A. Lievrouw and Sonia Livingstone (London, UK: SAGE Publications, 2002), 230.
- 8.Star, S.L. and Bowker, G., Sorting Things Out: Classification and Its Consequences (Cambridge:The MIT Press, 2000), 34.