



FIGURE S6.1 Tim Belonax, *A Machine for Typographic Generation*. Client: *The THING Quarterly*. 2012.

SECTION 6

EFFECTIVE WORK HABITS

THIS LAST SECTION again aims to merge art, design, and technology in a way that fuses separate parts of the craft, history/theory, and critique triad. As readers, learners, and educators, we have all experienced how this process can be challenging because it's easy for the technical part of the learning curve to overshadow the places from which an artist or designer is inspired (historical visual works and various theories or principles). In Section 4, *Typography*, for instance, learning the nuances of type might have seemed more important than memorizing the shortcuts in the applications used to set type. Different schools deal with this dilemma in different ways: some separate the “skills” classes into smaller sections taught by seemingly “less important” staff (diminishing the value of craft or those who specialize in being able to articulate this important aspect of the digital realm, in my opinion); others offer a combined lecture/lab model in which the instructor meanders from one end of the spectrum (history, let's say) to the other (a Photoshop tutorial), often without connecting the dots between the two. As mentioned in the book's introduction, this is essentially

the gap that this text aims to fill—a constant reminder that all parts of the digital equation are equally important and should be present or at least nearby when new students are absorbing the material.

For this section, consider what it means to *work effectively*—specifically when the tools at your fingertips are primarily digital. Arrange your workspace ergonomically. Learn as many hot keys (or keyboard commands) as you can, because pressing keys is less stressful on your body than moving a mouse or using a trackpad and results in fewer errors. Consider what it means to be *effective* (or *strategic*) in an era of cut, copy, and paste.

Computer Ergonomics,
www.ergonomics-ohs.com.au/computer-ergonomics.html

Lower Back Pain Toolkit,
www.lower-back-pain-toolkit.com/computer-ergonomics.html

Cascade Wellness Clinic,
cascadewellnessclinic.com/sports/computekids.shtml

RSI Warrior,
www.rsiwarrior.com/ergonomics.html

ERGONOMICS

This may seem obvious, but all too often I hear of students and friends who set up their computing workstations without thinking about their health and safety. Here are a few guidelines to keep in mind while designing an ergonomically correct work environment:

- **Height** The height of the monitor should be at eye level, and the keyboard should be aligned with your elbows. You can adjust your desktop or seat and use a keyboard pad to reap the benefits of this essential positioning guideline. Proper positioning of the monitor will help to alleviate neck and shoulder cramping. Proper positioning of the keyboard (possibly with a pad) will align your wrists properly to avoid carpal tunnel or other repetitive stress injuries.
- **Light** You should have enough light to see the monitor without squinting your eyes or sensing glare from the screen. In some cases, this might require a set of multiple lights positioned around your workstation.
- **Seat** The seat of your chair should be comfortable. Your knees should be at a 90-degree angle to the floor. You may find more comfort by adding a small pillow or rolled towel to support your lower back.
- **Feet** Your feet should be flat on the floor or resting flat on an elevated surface if the floor is unreachable.
- **Breaks** Take frequent breaks. Set a timer if you need to remind yourself to move every hour. Stretch your back, shoulders, and legs and give your eyes a break from short-distance viewing.

AUTOMATION

Automation can result from the invention of new technological processes. From Henry Ford's mass production of the Model T in 1908 to ATMs (automatic teller machines) popularized in the late 20th century, automatic processes imply a combination of a human nudge and a computerized system for

completing a set of directions. In literary circles, “automation” brings to mind automatic writing. Arthur Conan Doyle and Jane Roberts both believed that they channeled spirits, and that they themselves became the automaton. Automatic writing is also referred to as *stream of consciousness writing*, without the spiritual connotation. This was a method practiced by Virginia Woolf and James Joyce, the latter for “finding” his characters without the noise of the conceptual mind. The French group Oulipo also used rule-based writing techniques to “automatically” create or inspire new textual works.



FIGURE S6.2 Assistant executing Sol LeWitt's *Wall Drawing #65*. Lines not short, not straight, crossing and touching, drawn at random using four colors, uniformly dispersed with maximum density, covering the entire surface of the wall, a gift from Dorothy and Herbert Vogel, on a wall in the National Gallery of Art's concourse galleries, 2004. Courtesy of the National Gallery of Art, Washington, DC.

Automation can also refer to mechanical processes that hint at artificial intelligence. An art or design practice that relies on systematic automation certainly has relatives from the era of conceptual art in which the directive created by the artist was executed, knowingly or unknowingly, by participants. Sol LeWitt's wall drawings (FIGURE S6.2), which the gallery would execute based on a set of directions from the artist, or Stanley Broun's *This Way Broun* series of hand-drawn maps by passersby exemplify this type of conceptually driven

artifact produced “automatically” (or, at least, according to a set of rules) by nearly anyone but the artist who originated the idea.

Automation also suggests generative art, which is created by some automatic or rule-driven processes. Typically, there are some basic themes to the character or nature of the work of art, and as it develops, it mutates based on the system inherent to the process. Digital artists commonly think of generative art as “software art,” although this is not entirely accurate. Generative systems are biological and can be produced in all areas of expression from music to literature to digital art. In response to Cornelia Sollfrank’s *net.art generator* (FIGURE S6.3), Sarah Cook writes:

In the cultural sphere, technology is often misunderstood as merely a delivery medium for fixed content (one needs to think only of the progression in information transmission from the telegraph, to the telephone, to the television). “Generative art” turns this idea on its head—wherein not only is the content not fixed in advance, but the technology is the medium for that variable and manipulated content [1].

While you won’t create (or program) “software art” in these chapters, you’ll learn about automatic processes available to you in a technical lesson on the Photoshop Actions panel. This panel lets you direct Photoshop to perform a series of steps on one or several images. Most of the time, the goal is to re-create the same effect with a Photoshop Action, so this particular automatic process lacks the transformative quality common to generative art. However, you’ll learn to give directions to the computer (via

Photoshop) and reap the benefits of an incredibly effective working process for common digital imaging commands.

PRINTING

Printing can be as easy as pressing the Print button (for instance, if you’re printing a Word document or PDF file) and as complicated as you can imagine if you’re trying to match colors to a proof or print on the front and back of the page to create a book or pamphlet. You learned a little about RGB and CMYK

REFERENCE [1] Sarah Cook, “What would artificial intelligence find aesthetically pleasing? The burning question of generative art and its audience,” 2003. http://net.art-generator.com/src/cook_eng.html.

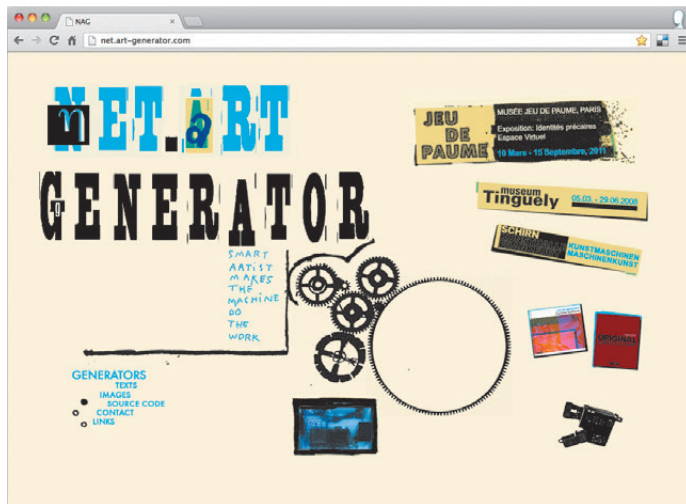


FIGURE S6.3 *net.art generator*, Cornelia Sollfrank (since 1997), <http://net.art-generator.com> Also see: <http://www.youtube.com/watch?v=43y2k5j7oIU>.

GENERATIVE ART RESOURCES

- Generative Art—Computers, Data, and Humanity (Off Book, PBS) video, <http://youtu.be/x00K1GIl83s>
- Getting Started with Generative Art on MediaMilitia, <http://mediamilitia.com/getting-started-with-generative-art/>
- Joshua Davis, Ben Fry, Golan Levin, John Maeda, Mark Napier, Casey Reas, and Scott Snibbe artists’ websites, to name just a few

color spaces in Chapter 6, *Color Models*. In Chapter 17, *Pagination and Printing*, you’ll further explore issues common to printing and page setup.

Printing is a craft for which there are many techniques. What you make with your prints can span a wide conceptual and aesthetic range. Letterforms or basic lines and shapes are used in spreadsheets and text documents, posters and brochures, activist publications, artists’ books developed for exhibition purposes, and more. Tim Belonax’s *The Thing* contribution for SASE #3, *A Machine for Typographic Generation*, fits two themes in this section: automation and printing (see FIGURE S6.1 at the beginning of this section). His machine encourages viewers/users to develop letterforms from a stencil system he created. Belonax’s machine is one that results in hand-drawn letters, a quality that contemporary artists’ books or graphically designed ephemera miss, due to the popularity and ease of production of digital output.

REVISION

Revision is as much a part of the creative process as brainstorming and commanding the tools of a craft to execute your vision. It simply cannot be denied, and when you’re developing your own projects, you should always budget more time for revision than you think you may need. In any expressive media, the revision process begins as soon as you make a decision. Some people have a set regime, while others revise based on reactions to their first (or tenth) attempt. Revision is personal—everyone has his or her own way of editing.

The final chapter of this text includes a series of contributions and interviews with artists and designers about their revision processes. These stories demonstrate the effectiveness of revision and many ways to approach it.

In Chapter 16, *Automation*, you’ll learn to use the Photoshop Actions panel to apply several commands to a document.

In Chapter 17, you’ll revisit the Actions panel from Bridge before learning to paginate the printing of a booklet in InDesign.