FREEHAND RENAISSANCE: CONCEPT SKETCHING FOR A DIGITAL AGE

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1 ABSTRACT

Concurrent with the rise of stunning digital representation techniques, demand for hand drawing classes and workshops is growing. On-site charrettes requiring quick sketching of evolving ideas have become mainstream in town planning practice, and the freehand story-boarding techniques of film-making are finding their way into the creative processes of urban designers. At this writing, a majority of landscape architecture job openings call for hand drawing skills. We're witnessing a pendulum swing from almost exclusive use of digital imagery to a new found appreciation for the immediacy and freshness of hand drawing.

To effectively complement technology, however, freehand design drawing must be rethought for a digital age. Shorter time frames, tighter budgets and on-the-spot collaboration have outpaced the profession's traditional, labor-intensive "hand graphics" techniques and call for rapid working methods that complement digital work flow.

This paper discusses the author's rapid drawing approach and supportive techniques that have evolved over the last dozen years of urban design projects and charrettes, and the influences of interactions with reportage illustrators, product designers and filmmakers on these ideas and methods. Working with faculty and students through teaching of invited workshops across the United States and abroad has heightened awareness of the uniqueness of this approach, and suggests opportunities for moving applied theory from private practice to academic practice.

1.1 Keywords

drawing, representation, freehand, sketching

2 INTRODUCTION

Digital technologies for design representation have become ubiquitous in landscape architecture programs, changing how landscape architecture design proposals look, and by extension changing the way that landscape architecture is taught. Proficiency in a number of software programs and digital representation skills is considered baseline for young graduates entering the job market (American Society of Landscape Architects, 2013).

At the same time, a review of landscape architectural job openings listed by ASLA's Job Link at this writing reveals that of 20 design-related positions listed, 60 percent specify freehand graphic skills in the list of qualifications they're seeking (American Society of Landscape Architects, 2013). A conversation on this topic with the Director of Human Resources of a large landscape architectural firm with an international practice clarified that, "We're not looking for artists or illustrators. We're looking for evidence of a designer's thought process and the ability to communicate it convincingly, and that's more evident in hand work. We feel so strongly about it that we created a book of hand graphic techniques and examples and sent it to graphics teachers at universities across the country; we also provided copies to student attendees of LABash" (Eden, 2012).

On-site charrettes requiring quick freehand sketching of evolving ideas have moved into the mainstream in town planning, urban design and transportation planning practice (Condon, 2007), especially in light of tighter public and private project budgets. The freehand story-boarding techniques of film-making and their creative interpretation by progressive architects such as Tschumi and Koolhaas are finding their way into the practice (Koeck, 2012) and teaching (Amoroso, 2012) of urban design.

The interest in and market demand for freehand sketching skills in landscape architecture and urban design practice is clearly reflected in the author's project experience over the past dozen years, which has been increasingly distinguished by "concept design" commissions to synthesize complex project impressions into freehand sketch plans and imagery, always rapidly and frequently on-the-spot. These hand-drawn images capture and make visible complex design ideas, help to facilitate a common vision and become the foundation for further development with both analog and digital tools. The time and budget demands of this area of practice have given rise to streamlined approaches and methods for generating concept sketches efficiently, and offer insights into how they might be incorporated into academic practice.

2.1 Purpose

The purpose of the study is to define and articulate a freehand sketching approach and supportive techniques—mined from the trenches of urban design and charrette project experience, workshop instruction and feedback, and self-directed study—that enhance a creative design process and that complement digital work flow. The study opens a view to aspects of design practice that require rapid freehand sketching skills in order to more closely align academic views of drawing and representation with the needs of current projects and clients, thus moving applied theory from private practice to academic practice.

2.2 Methods

This section outlines the author's project and charrette experience between 2001 and 2013 from which the findings are drawn. It also outlines activities over the past 6 years that have supplemented the project experience, including conducting invited student and professional workshops at universities and conferences, and self-directed study with creative professionals in a range of disciplines.

Based on internal review of project records, the author has served as lead designer for 63 projects that bridge landscape architecture and urban design since year 2001, including urban stream corridor planning, urban freeway enhancement, downtown revitalizations, and transit oriented developments, among others. In 84 percent of these projects, the author acted as a sub-consultant to other private design firms with the charge of generating planning and design concepts on the "front end" of the projects. Thirty-eight percent of the total involved hands-on charrette sessions with in-house design teams and/or public participation, characterized by production of a large volume of illustrative design drawings generated on-the-spot.

The author's scope in virtually all of these efforts was to employ design thinking with the use of freehand notation and drawing skills to facilitate a consensus on design process and direction, to capture

and develop early impressions and ideas, and to synthesize large amounts of input and information into alternative concepts and a preliminary preferred solution in the form of rapidly generated sketch plans and supporting imagery. This work was then typically used to guide further development with digital tools by the client firm's in-house design staff. A conservative estimate based on review of these projects is that roughly 2200 freehand, concept-level design drawings were produced by the author in the course of executing these creative works. Over time, the nature of the work has yielded production efficiencies and rapid drawing techniques that in hindsight can be recognized as methods that are transferable from private practice to the classroom.

These approaches were first systematically assembled by the author in a preliminary fashion for presentation to the 2007 LABash conference in Baton Rouge, and were later expanded on for the "Editor's Choice" article in *Landscape Architecture Magazine* published in November of the same year (Richards, 2007). They have continued to evolve and subsequent refinements have been presented as invited hands-on workshops or lecture/demonstrations at ten university programs in landscape architecture across the United States and in Turkey, six ASLA chapter conferences, one national ASLA conference, and the 2nd International Urban Sketching Symposium in Lisbon, Portugal to date. Each workshop and lecture/demonstration resulted in feedback from participants on the approaches and techniques themselves as well as the methods used to communicate them; these observations continue to shape the findings.

The continuing search for streamlined sketching methods appropriate for current landscape architectural practice has extended into self-directed study with sketching teachers in allied creative disciplines. Over the last 3 years these efforts have included learning varied approaches and technique from international talents in sketching workshops, and have included reportage artists Veronica Lawlor (New York) and Simonetta Capecchi (Naples), illustrators Nathalie Ramirez (Santo Domingo), Nina Johansson (Stockholm), and Jonathan Schmidt (New York), fashion illustrator and professor Melanie Reim (New York), architects Asnee Tasna (Bangkok), Francis D.K. Ching (Seattle), and Liz Steel (Sydney), and film animator and game designer Marc Taro Holmes (Montreal). These instructional sessions have been complemented with ongoing instruction on digital tablet design sketching techniques with product designer and landscape architect Robert Chipman (Austin).

3 FINDINGS

The findings represent cumulative observations and experience from this mix of creative works, invited workshops and self-directed study over approximately 12 years. They have been driven by the need to capture visual ideas in design sketch form with speed and efficiency, facilitating quick design iteration, allowing for early client/team feedback, and guiding further development through analog or digital tools.

The overarching observation is that freehand design sketching is used to best advantage as an exploratory tool and a catalyst for ideation at the beginning of creative process, rather than to illustrate finished design proposals at the end. Yet the teaching of hand graphics observed in the course of campus visits for workshops, advising and critique appears to be rooted in traditional illustrative "rendering" techniques rather than the use of drawing as a design tool that can provide a springboard for more detailed exploration and representation through digital means. The latter calls for a quicker, less rigid and more accessible style of freehand design sketching that supports and complements our best digital technologies.

This view has been championed by William Johnson, FASLA (Johnson, 1993) since the advent of digital representation technologies in landscape architectural practice. But the insights of production designer Harley Jessup of Pixar Animation Studios lend a valuable perspective from a creative field particularly adept at balancing the advantages of both cutting-edge technology and the traditional arts. "Story is king," said Jessup. "Until the story is right, Pixar will not allow a film to proceed into production…The act of drawing continues to be the standard medium for communicating visual ideas at Pixar, and although the thousands of drawings we create may never appear directly on the screen, they remain the foundation of every feature film we create. The computer is a miraculous tool but a great story is, in fact, the heart of a Pixar film and to tell that story we always begin with a drawing" (Treib, 2008).

The parallel with landscape architectural practice lies in the rejection of the "either/or" mentality relative to the use of analog and digital methods, and in the creative use of both freehand sketching and computer technology for what each does best, and at their appropriate place in the creative process. The

following specific sketching approaches and techniques have evolved from the cumulative experiences described above in response to the need to capture ideas quickly and on-the-spot.

4 Work Small

This idea evolved in charrettes and in the design studio over time, often in the face of competing project deadlines, where the rapid capturing of ideas was most often spontaneously expressed as a series of very small, spare studies which could be evaluated and then cast aside, or moved forward for further refinement and development. Working small also forces the designer to simplify, reducing the idea and its expression to its essence.

This practice was later corroborated and refined through study of the techniques of film concept artists Syd Mead (2004) and Feng Zhu (2003), architect Jim Leggitt (2009) and Pixar production director Harley Jessup, each of whom advocate working small—from thumbnail to letter-sized whenever possible—as a key to efficiency and clarity. It was further validated in the course of a field sketching workshop with award-winning reportage artist Veronica Lawlor, who teaches the studied use of small thumbnail sketches—often no larger than 2 inches by 3 inches—as visual explorations, not only to discover potential drawing compositions but to zero in on what she calls “the decisive moment,” when a compelling visual idea about an environment or situation is discovered through generating many small exploratory studies, and then developed in a larger format. The practice is similarly reinforced through a lecture, paper and subsequent conversations with Christopher Grubbs, the architectural illustrator whose evocative images prepared for clients like Peter Walker Partners and Hargreaves Associates begin with 2-inch by 3-inch thumbnail studies of visual ideas, often prepared in the course of conference room discussions, to synthesize input into an image that captures an idea with clarity (Treib, 2008).

4.1 Simplify Tools

The creative standardization of a small selection of drawing tools lends speed and efficiency to the ideation process in two important ways, without compromising creative effort. First, limiting choices to a small but versatile and consistent selection of tools eliminates time-consuming decisions about drawing media, allowing the designer to focus attention on developing ideas rather than on which media and techniques to employ (Hanks, 2003). Second, consistent use of a limited selection of tools leads to mastery of those media, wherein they become extensions of the brain and hand in making ideas visible. From a practical standpoint, the small, versatile collection becomes a portable studio, traveling to project interviews, client and team meetings, charrettes and workshops in a satchel or briefcase.

4.2 Simplify Technique

A limited and consistent drawing vocabulary of line work, strokes and textures, practiced and employed to the point where they become second nature, allows the designer to focus attention on the idea to be captured, rather than on how to draw a particular element or surface. This valuable approach to sketching is less about knowledge or technique than it is about practice and repetition over time.

4.3 Simplify the Message

The author’s charrette work has been well served by producing a greater volume of small sketches that employ the minimal line work and tone necessary to convey the essence of an idea, rather than a single epic drawing that attempts to tell the entire story. A collection of small sketches focused on key ideas can be added to and edited in sequential storyboard fashion, keeping a great deal of flexibility in the creation of a project’s “storyline.”

4.4 Use Digital Bases

Make liberal use of digital photography, Google Earth and preliminary SketchUp models as sketch bases. Whether printed out as letter-sized hard copies for tracing or imported into a drawing software program, digital photo and model bases eliminate the need to create perspectives from scratch and provide true context and perspective from which to launch freehand design explorations, resulting in both accurate design sketches and tremendous time savings.

4.5 Leave Rough Ideas Rough

The ability to refine presentation imagery to photo-realistic levels with software frees hand drawn, exploratory sketches to be what they are—quick captures of preliminary ideas, often with line restatements and overdrawing, qualities that lend the image a living, human quality often lost in subsequent refinements and "rendering." Loose, exploratory sketches tend to elicit feedback more successfully than careful renderings, and help convey the exuberance of this exciting part of the creative process. The work of seasoned reportage artists such as Lawlor, Despina Georgiadis and their colleagues at New York's Studio 1482 employ a loose but confident sketching style that successfully captures a spirit of place with an unmistakable human energy; their work can be instructive for designers seeking to convey ideas about the character and energy of existing or envisioned landscapes (Lawlor, 2013).

4.6 "Digital Freehand" is Not an Oxymoron

The drawing ideas and techniques discussed in these findings apply equally to drawing with traditional analog sketching tools and to sketching with pen-interactive computers. This powerful digital drawing hardware, used creatively with intuitive, user-friendly software, can seamlessly merge the human energy and creative flexibility of freehand sketching with the advantages of computer technology (Chipman, 2012). This technology has been used in the fields of illustration, film animation and product design for some time, but its potential in the area of design sketching for landscape architects, pioneered by product designer and landscape architect Robert Chipman among others, is in its very early stages. Chipman's most successful applications, which he has shared with the author through one-on-one training sessions, have used large Wacom Cintiq pen-interactive displays or a portable LE 1600 tablet computer by Motion in combination with Autodesk Sketchbook Pro software. Working with a drawing stylus on a pressure-sensitive screen and with a rudimentary understanding of the software, the designer is free to create any type of design sketch or drawing that she might create on paper, but can incorporate all the efficiencies and advantages of state-of-the-art drawing software. This hybrid approach to freehand design sketching still requires that the user understand the mechanics of traditional freehand sketching, such as line quality, perspective, and composition, but employing that skill in combination with powerful drawing software greatly extends the designer's creative choices and flexibility (Richards, 2013).

4.7 Develop Mastery through Freehand Location Sketching

All of the creative professionals cited here as influences and teachers employ freehand location sketching as a regular discipline that informs and strengthens their drawing skills and confidence, their powers of observation and their creative memory. For the designer, deeply seeing and drawing a place as it is can become a creative springboard for envisioning places as they could be (Richards, 2013). Da Vinci's sketchbooks celebrate a push and pull between life drawings of subjects of interest and ideas for new experiments and constructions that sprung from his observations (Cooper, 2007). Lawrence Halprin's sketches of natural phenomena and "the ecology of form," at once evocative and analytical, informed his celebrated designs for projects such as Sea Ranch, the Portland Open Space Sequence and Levi Plaza (Halprin, 1981). Architect and author Francis D.K. Ching, eloquently describing the relationship between a discipline of observational sketching and design, writes, "Drawing, like the ancient Roman god Janus, has two faces. One looks to the past, at what already exists, when we draw on location from direct observation…The other face of drawing looks to the future, what does not yet exist except in our mind's eye…these two faces of drawing are related. The things we learn about our environment when we draw on location helps us as we imagine, draw and design the future" (Richards, 2013).

5 CONCLUSION

The key recommendation rising from these cumulative observations and experiences takes a lesson from Pixar's working methods; namely, that a combined, "both/and" approach maximizing the creative strengths of both rapid freehand sketching and computer technology best serves the search for creative solutions to the range of challenges landscape architects face now and in the foreseeable future. This approach suggests moving away from instruction of traditional and sometimes labor-intensive "hand graphics" and "rendering" to less rigid, more accessible rapid sketching techniques that help conceive ideas and crystallize concepts at the beginning of the creative process while providing a blueprint for further development and representation with digital technologies. The techniques outlined in the findings

can provide students and professionals with a foundation for continuing instruction and especially practice, which over time can result in more individualized working methods and style.

The visceral act of hand drawing may yield psychic benefits that should not be overlooked. The author often receives feedback from articles and workshops through letters and conversations from students and professionals that speak to the creative invigoration and personal satisfaction they've experienced through integrating exploratory freehand design sketching into their design process. Their experience speaks to the validity of attitudes and working methods that an arts educator described to the author as "a reintegration of work and play within an ethic of discipline and professionalism" (Jarrell, 1994). One workshop attendee, an experienced landscape architect, expressed his view succinctly: "Thank you…I'd forgotten what we do is supposed to be fun." Architect Michael Graves closed his recent opinion piece for the New York Times with a parallel sentiment, "…drawing by hand stimulates the imagination and allows us to speculate about ideas, a good sign that we're alive" (Graves, 2012).

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Failing and succeeding in sketching go hand in hand, and just like anything else in life, sketching will get progressively better with practice. It is a skill that needs constant honing.Â Using just a digital pencil and some simple airbrush tones, we start to sketch a concept for a room heater. In the first stage we have an outer shape, the front grill, the handle on the top, and the areas where control buttons would be located, on the top and right. While this is a good beginning, we still need to better define the nuances of each surface.