Representing Landscapes: Hybrid

Hybrid and mixed media create a huge variety of diagramming and drawing options for landscape representation. From Photoshop mixed with digital maps, to hand drawings overlaid with photos and modelling combined with sketches, the possibilities are endless.

In this book, Amoroso curates over 20 leading voices from around the world to showcase the best in contemporary hybrid design. With over 200 colour images, this book will explore the options, methods and choices to show the innovative approaches that are offered to students and practitioners of landscape architecture.

With worked examples in the chapters and downloadable images suitable for class use, this is an essential book for visual communication and design studios.


Nadia Amoroso is an expert in landscape architectural visual communication, digital applications, data visualization and creative mapping. She operates a design consulting firm specializing in landscape visual communication and data-design visualization. She also teaches urban design, visual representation and landscape studios at the University of Guelph. She has held a number of international academic and administrative positions, including Lawrence Halprin Fellow at Cornell University, the Garvan Chair Visiting Professor, and Associate Dean. She specializes in visual representation, analogue and digital graphics, and architectural and landscape architectural design. She has a PhD from the Bartlett School of Architecture and degrees in Landscape Architecture and Urban Design from the University of Toronto. She is the author of The Exposed City: Mapping the Urban Invisibles (Routledge, 2010).
Amoroso’s series of books regarding representation are useful and influential manuals of technique, but more than that they ask us to critically reflect on how and what we represent.

Richard J. Weller, the Martin and Margy Meyerson Chair of Urbanism and Professor and Chair of Landscape Architecture at PennDesign, University of Pennsylvania

In an age where the making of drawings and representations in the design professions are increasingly being given over to professional renderers that have no role in the conceptualization of projects, Representing Landscapes: Hybrid attempts to recover drawing and model-making as generative and distinct acts that inform and manifest the ideas inherent to a work of landscape architecture and design. The essays herein, are illustrated beautifully with work that moves seamlessly between digital and analogue modes, and often between two and three dimensions. Detailed captions explain precisely how the images were made, in what order, and with what tools and techniques—thereby making the book an essential resource for students, teachers, and practitioners of landscape architecture everywhere.

Chris Reed, Principal, Stoss Landscape Urbanism and Associate Professor of Practice in Landscape Architecture, Harvard Graduate School of Design
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Contributors

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**Roberto Rovira** is principal of Studio Roberto Rovira, Associate Professor, and former chair of Landscape Architecture + Environmental and Urban Design at Florida International University. As a registered landscape architect with a design, engineering and fine arts background, his teaching, research and creative work explore the potential of landscape architecture in public space and the intersection of technology and living systems through projects like his Ecological Atlas. Roberto has been recognized nationally and internationally for his work as an educator and professional. Most recently, the Architectural League recognized him as one of eight 2015 Emerging Voices. He has been lead designer in national and international projects and his work ranges from environmental installations and competitions to art commissions, exhibits and landscape architecture projects.

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Foreword

Mikyoung Kim

During the creative process, drawings are the way in which we express cultural identities, natural systems, and human experiences in the landscape. Today, there is an incredible diversity in the selection of digital and analog tools, allowing for us to discover new concepts and communicate ideas to the public. How do we manage this vast array of drawing instruments in order to use them effectively? The answer is complex and requires a clear understanding of the strengths of each drawing technique, while finding ways in which a dialogue can be developed between digital and manual drawing. From free-flowing conceptualization to precise construction drawings, a hybridized drawing approach yields design work that more clearly defines and communicates the vision of the work.

Advances in digital technology have wholly transformed the design process over the last 40 years and have offered designers powerful and exciting new tools to develop, edit, and evolve their design work. As such, digital technology has greatly aided efficiency; in conjunction with the internet, it has allowed for an unprecedented ease in communication. Collaborative communication between professionals has become a rich global exchange, integrating a design process across time zones and professional boundaries. Presentation software and video animation technologies have made available powerful visual representations of spatial experience for designers and their clients. Additionally, three-dimensional software capabilities advance the design of complex forms from conceptualization through fabrication. All of this has offered landscape architects and architects a new array of processes to develop, construct, and communicate design ideas.

However, with these advances, there has also been a loss. The use of digital design as the primary mode for concept development has constrained the design process. By limiting the view solely to the boundaries of the computer screen, reality has been compressed, much as television does to life. Eventually, our work has to be tested in the three-dimensional world with unlimited horizons. Both computed-aided design (CAD) and the cadre of three-dimensional software have offered designers immense abilities in visualizing and creating space, but have also allowed for the design process to be abbreviated, while creating homogenized renderings of envisioned landscapes. Digitization should simply be one of the many effective tools as part of the design development process.

Without the integration of analog methods, a purely digital process can rob the final spatial experience of the richness and humanity that great landscapes provide. Manual drawing instruments include a wide range of tools: graphite, ink, charcoal, pastel, paint, erasers, metal, and wax. From this palette, designers have at their disposal a myriad of ways to produce their ideas iteratively, understand the scale of their work, and collaborate with clients efficiently. The strengths of manual drawing lie in their direct and often intuitive communication of information from the brain to the hand to paper. As a representation and exploration tool, it is clear that hand drawings yield work that expressively captures the gestalt of the creative vision within an understood scale of reality. Drawings should be a reflection of the distinct identity of the place, the community, and the designer’s vision, differentiating a park in Kuala Lumpur from a plaza in Boston.

In our own work, a hybridized drawing approach plays an important role in all phases of design. It’s clear that digital software such as Rhino, Photoshop, and AutoCAD has transformed the development of design concepts and material explorations from schematic design to construction. However, the use of pastel, graphite, ink, white-out, eraser, and other manual tools is still a vital part of our
collaborative design process. During concept development, ideas are generated in Photoshop and then sketched over in pen, marker, and white-out. Simultaneously, concepts can be generated in pastel, charcoal, and clay, scanned into digital format, and collaged with photo realistic material images in Photoshop. This dialogue between digital and manual drawing continues throughout the process into shop drawings. During collaborative design discussions, everyone can participate in real time on one drawing surface with analog tools. From there, digital capabilities allow for us to understand three-dimensional experiences in exciting and powerful ways. Often, our study models are a combination of digitally three-dimensional printed models with manual clay and chipboard additions, creating a flexible process that embraces both 21st-century and timeless technologies of drawing and modeling.

In the end, good design is not a singular or mechanistic process; it cannot rely solely on digital tools as a means of defining a collective experience in the public realm. A hybrid approach to the exploration of design work brings forward a more open process that is complex and unpredictable and can yield landscapes that embrace experiences that are scaled effectively to engage the human body and mind. The language of landscape architecture is a personal communication from designer to humanity; visionary design cannot be produced by singular processes that homogenize the unique sense of place that landscapes can provide.
Acknowledgments

This journey for the quest of ‘good’ representations of landscapes in its current state and design state has been a passion of mine since I was a graduate student at the University of Toronto. I am interested in both hand-sketches, digital application and a fusion of the two – creative, innovative and poetic ways to illustrate the landscape. This representing landscape series would not be possible without the interest and demands for landscape architectural students seeking to ‘see’ and ‘understand’ ways to visually communicate their ideas and vision in a way that attracts their readers and seeking to learn more about the landscape itself through its visualization.

Also this book would not be possible without the support and contributions by my fellow colleagues within this ‘Hybrid Representation’ book. I would like to acknowledge all the contributors from various universities across the globe who have dedicated their time in crafting essays and gathering visuals from their students which support the topic of visual representation in landscape architecture today, with a focus on hybrid media. Their ongoing collaboration, dedication to teaching, forward-thinking approach and expertise in visual representation have made this publication a reality.

I would like to express my gratitude to all the contributors involved in the workings of this publication, including: Jonathon R. Anderson, Mauro Baracco, Kofi Boone, Liska Chan, Christopher Counts, Maria Debije Counts, Sarah Cowles, Kelly Curl, Carla Radoslovich Delcambre, Kris Fox, Kenny Fraser, Anne Godfrey, Martin J. Holland, Mikyoung Kim, Yumi Lee, Weimin Li, Sarah Little, Leehu Loon, Suzanne Mathew, Ken McCown, Daniel H. Ortega, Brian Osborn, Robert Gerard Pietrusko, Roberto Rovira, and Paul Russell. Their personal and professional expertise on the topic of hybrid representation in expressing landscape ideas has helped frame the book as a broad visual resource for the next generation of landscape architects and for professionals alike. Also, their ongoing research on aspects of representation as a means for research and communication has made it possible for their students to examine visual representation styles and techniques that go beyond the ‘same’ kinds of visuals we tend to see today. Along with the professors’ input, their students’ drawings are paramount in the book. Without their creative thinking and visual representation skills, this book would not be possible. Compliments to all the students whose work is featured in this book.

I would like to offer special gratitude to Mikyoung Kim for her inspirational and poetic Foreword. Kim’s work at Rhode Island School of Design paved the way for Hybrid Representational discourse. Her contribution for this publication was a perfect fit; she is expert in this field and an award-winning landscape architect and educator.

I would also like to send a special thanks to my colleague Chris Counts for contributing an inspiring afterword and closing remarks for this publication. Maria and Chris have a successful practice in New York, in which hybrid representations are evident in their visual communication of their ideas, and carried forward in their teaching, as evident in the upcoming chapters in this book.

I would also like to thank my graduate student, Adele Pierre, for her assistance, and I wish her the best in her career in landscape architecture.

Thank you to Routledge (Taylor & Francis Group) and for the creative vision of Louise Fox, Sadé Lee and their team, in helping to shape this idea and to making this visually rich publication a reality with all three books in the series.

Finally, I am grateful to my parents for their ongoing support and encouragement, to Serena, Sofia, Siena and Giuliano; and to my husband, Haim, for his devotion and patience, which has made this process a positive experience.

Nadia Amoroso, PhD
The hybrid zone in divergent and convergent thinking

Sarah Little and Leehu Loon

As landscape architecture professors, we continuously discuss the fate of our hand-drawing course. Our continued conclusion is that hand drawings are just as important as computer-generated drawings. Employers seem to concur. Landscape architecture firms across the country were surveyed in regard to their definition of a successful portfolio. A major finding from that research is that firms value hand-drawn process images in portfolios because they reveal how an applicant thinks about a design problem. Witnessing the transformation of roughly drawn conceptual designs into final computer-generated drawings provides clues to a designer’s design process. In our students, we have observed the progression of hand-drawn process images into computer-generated images. We call this progression the hybrid zone.

The hybrid zone occurs between divergent and convergent thinking. In divergent thinking, the designer generates as many design solutions as possible, typically utilizing hand-drawing techniques. In convergent thinking, the designer selects the best ideas to refine and develop into computer-generated drawings. The first design concept will be obvious and probably not very innovative or creative. Innovation and creativity take effort, refinement and development. Designers must spend time engaged in divergent thinking in order to produce innovative and creative work. A good way to find the best design solution is to generate as many scenarios as possible, evaluate these solutions, and craft a final concept based on knowledge gained from this process. Drawing during divergent thinking must happen very quickly; drawings are loose and often messy. Time spent creating presentation-quality drawings is wasted during divergent thinking. Most students who have been observed, especially graduate students working on a first professional degree, generate ideas quicker using hand-drawing techniques with soft graphite or thick-tip felt pen and a roll of trace paper. In the days of design education before computers are integrated into the studio environment, final presentation drawings are developed from divergent thinking drawings using hand-drawing techniques.

As the use of computers in design education grew, the software and methods of drawing with the software have continued to be used as a means to an end. That is, computer software has been utilized in the production of the already-completed design. Much in the same way that designers have made decisions to draw with markers or coloured pencils, computers and software applications simply have become another option for design production. As such, many schools began teaching computer applications as separate stand-alone courses that supplemented a design studio and were not integrated into the studio. As software developed, became more user-friendly, and many different applications became available, the computer applications course here at the University of Oklahoma has been forced to change and evolve, as in many landscape architectural programmes. This change was also a result of not being able to teach enough computer applications in one course. In the graduate landscape architecture programme of the Division of Landscape Architecture at the University of Oklahoma a basic computer applications course is still introduced in the first year after students complete a hand-drawing course. The computer course now introduces students to the most commonly used computer
applications in landscape architecture. The course also alleviates the sometimes uncomfortable transition into graduate school where students are required to become adept at communicating ideas in a graphic manner instead of in the written form that they may be more comfortable with from their undergraduate studies in other areas.

The evolution of this course continued in the sense that computer applications are now part of the studio design course. When students feel that the basic applications are not sufficient for the production of their design, they are afforded the opportunity, with faculty support, to learn and apply new applications in studio for the development, production and presentation of their work. This process of learning software applications while developing a design solution has had positive results as graduate students today are quick to try and learn new applications and integrate the learning process into their design studio. This process of learning has also proven to be beneficial to the students as it allows them to experiment with the newest software applications that are being used in the profession while not making a long-term commitment to using any one single application for their work. Through utilizing computer applications in studio, students effectively communicate design ideas which are difficult to achieve by using hand drawings only, such as achieving transparency in drawings, depicting lighting effects and conveying the experience of the landscape (as seen in the figures). Also, students may work more efficiently during studio by utilizing computer-generated images which are easier to manipulate than a hand drawing. The use of multiple software applications has also allowed students to utilize the best aspects of each application and experiment with combining multiple applications (and hand graphics) to produce renderings that are eye-catching, informative and represent a graphic communication style that students feel comfortable using. Once computers have been integrated into the studio environment, the divergent- and convergent-thinking paradigm evolved to include a hybrid zone of the design process.

In the hybrid zone, hand drawings generated in divergent thinking are scanned and developed into convergent-thinking drawings with the use of design software. The balance between divergent and convergent thinking varies from designer to designer. Also, the hybrid zone position within this balance varies from designer to designer and from project to project. The examples shown in the figures represent how our students utilize the hybrid zone within convergent-thinking drawings.

Note

1 Nelson, N. Enhancing Design Portfolios: Transitioning to Professional Practice. Poster session presented at the meeting of the Council for Educators in Landscape Architecture, Austin, TX, February 2013.
5.1, 5.2, and 5.3
This series of images conveys the evolution of an idea to a final design. The studio project involved designing the outdoor space at the Sam Noble Oklahoma Museum of Natural History on the University of Oklahoma campus. The student chose to extend the interior of the Museum by creating outdoor rooms which afford a range of experiences for visitors. The student has found inspiration in the concentric circles formed in rippling water to create a scheme of interconnected outdoor rooms. Working quickly with pen and trace paper, the student quickly develops the conceptual design. The hand drawings are scanned creating a digital file which is manipulated into a final computer rendering of the plan. By Hejun Wen.
The student transformed the messy conceptual design into an easy-to-read plan by refining the lines; adding the surrounding context, such as building footprints, roads/parking lots, and streams; and clarifying with colour and labels. Hand drawing afforded the freedom to quickly generate and develop ideas, while computer applications have afforded clarity and readability to the final plan. By Hejun Wen.
Since the plan is created using computer applications, the final image is easily manipulated into other forms. The student easily produces a reduced and muted version of the plan to orient the location of the perspectives. By Hejun Wen.
This student's graduate project is a redesign of a government plaza in Harbin, China along the Songhua River. As this student begins the design process, he has done so by generating multiple ideas relating to the form of a flowing river. These ideas (Figure 5.7) are best expressed through the use of hand drawings to mimic the free-flowing nature of the river. During the refinement stage from concept to the final master plan, the student has continued with hand drawings as it has allowed him the style necessary to convey the feelings of the free-flowing forms of the river (Figure 5.8). After the plan is produced, perspectives are necessary to convey the character and experience of the design. At this point, the student has combined computer applications and styles to express a character that he is unable to achieve with only hand drawings (Figure 5.9). By Xianglong (Quentin) Kong.
When landscape architects first started using computer applications in design, it was common to show a rectangular photograph of the plant that was to be used in the design. This created a rigid, unnatural feel to the sheet. These three images are created using computer applications to show a composite view over the course of a year of the texture, colour, and forms of the plants that are chosen for this design. Multiple layers of information are presented in a concise manner with very little text. By Alex Tyler and Shayna Orr.
These three images are part of a project to redesign a bat habitat at a zoo. The images demonstrate the effects that computer-to-computer applications (versus hand-to-computer applications) can have on a rendering. This student has focused on expressing the correct levels and proper locations of light, which is important since bats interact with light in specific ways within their habitat. The successful lighting effect displayed in these images would be difficult to achieve with hand drawings alone. By Alex Tyler.