

FIELDWORK HYBRIDS: LEARNING FROM OTHER DISCIPLINES HOW TO READ, RECORD AND REVEAL THE LANDSCAPE

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1 **ABSTRACT**

Various disciplines use the fieldwork heuristic ranging from biology, through the observation of certain animal species in their natural setting, to anthropology, through observation of social settings or cultural groups. The practice requires more than simply being out in the field, however. Fieldwork requires immersion in a particular setting, observation of the subject matter, and recording of observations in a systematic manner. The purpose of this study is to learn from other discipline's fieldwork methodologies in order to derive new techniques for researching and interpreting the landscape. This paper reports on the development and use of fieldwork hybrids as an analytical methodology to understand, document and visualize the landscape. The presentation discusses three examples of fieldwork hybrids, two academic exercises and one professional development project. Drawing from the environmental and social sciences fieldwork methodologies, the hybrids include problem definition, site immersion, observation and recording, findings analysis and presentations of results/findings. In looking at fieldwork methodology used by other disciplines, landscape architecture has the potential to build on existing analytical and visualization techniques and expand into new territories of reading, recording and revealing the landscape.

1.1 **Keywords**

Fieldwork, Hybrid Methods, Landscape Analysis, Site Representation

2 INTRODUCTION

For various disciplines, the landscape serves as either the setting or the subject of study. Geography examines the physical features of the landscape or how humans are impacted by those features. Ethnography is the study of cultures and communities from the point of view of the group in an in-situ or site-based setting. Environmental Science combines interdisciplinary perspectives to study the environment and propose solutions to environmental problems. These fields of study bring traditions, practices and methodologies to observe, record and develop findings related to the landscape. Within both academic and professional realms, landscape architecture often uses the knowledge created by these related disciplines to inform the study and practice of the field. For example, information about soils, plants and human factors often stems from related disciplinary fields in the natural and social sciences. Are there other ways to learn from these disciplines in order to enrich landscape architecture? The purpose of this study is to learn from other discipline's fieldwork methodologies in order to develop expanded techniques for investigating, analyzing and understanding the landscape. This paper posits that landscape architecture might look to fieldwork methods and techniques used in the natural and social sciences in order to inform and inspire our own methods and techniques of studying the landscape. In particular, this paper explores how the methods and techniques of fieldwork, 'the immersion by a researcher in a setting, group or area of study in order to conduct inquiry' (Wolcott, 2005), might inform landscape architecture for reading, recording and revealing the landscape.

The primary research question of this study asks is *if new approaches to site inventory and analysis can be formed by sampling fieldwork methods from allied disciplines?* This paper reports on the development of three fieldwork hybrids, two undergraduate academic exercises and one ongoing research project, drawn from the environmental and social sciences. Having grown from the author's design research and evolved into instructional tools, the hybrids are utilized as a research endeavor, an analytic tool, and an opportunity to connect with the landscape. The hybrid methods discussed draw from three commonalities found across fieldwork practices - the immersion of the researcher into the study site, an emphasis on observation, and approaches to recording and reporting data. These methods have the potential to build on existing analytical and visualization methods.

2.1 Site Analysis Traditions and New Directions

Author and landscape architect Thomas Russ, notes that "site analysis is the most important step in the successful site design process" but often discounted and undervalued (Russ, 2009, p. 47). In the text *Site Analysis, A Contextual Approach to Sustainable Land Planning and Site Design*, author James LaGro defines site analysis as, "a diagnostic process that identifies the opportunities and constraints for a specific land use program" and integral to this process is the prior need to conduct site inventory in order to "provide the physical, biological and cultural data needed for this program-driven analysis" (LaGro, 2008, p. 169). This process of collecting and critically evaluating information about the landscape directs further decision making including a site's suitability, program, capacity, development opportunities and non-development constraints. Site analysis is closely linked with the activities of site planning, the action Kevin Lynch describes as "the art of arranging structures on the land and shaping the spaces between." (Lynch, 1984, p. 1). Many authors trace the development of site analysis methodologies from the early 20th century and connect the practices of overlay mapping and diagramming through the work of Charles Elliott, Ian McHarg and Kevin Lynch. (Collins, 2001; Herrington, 2010; LaGro, 2008; White, 1983). The landscape architecture profession confirms connections with the activities of inventory and analysis through the inclusion of education requirements for accredited institutions (LAAB, 2016) and licensure (CLARB, 2017). Current methods rely on acquiring and reviewing objective, data-rich resources such as soil, geologic, engineering and hydrologic reports, aerial photography, and policies guiding site development (Russ, 2009).

While site analysis and inventory practices are essential to the landscape architecture profession, for many studying the landscape, current conventions are not fully sufficient to understand a site's potential in the design process. Christophe Girot, discusses his intuitive and perceptual connections to a particular site, noting that "each time a landscape project begins there should follow an extended period in which one may simply discover what already exists" and designers should "come to grips with their intuitions and experiences of place, allowing these impressions to direct the unfolding of the project." (Girot, 1999). Seeking to expand traditions and drive new directions, essay collections such as James Corner's *Recovering Landscape* or Carol Burns' *Site Matters* have offered needed conversation and resources for educators and practitioners. In these collections, theorists like Elizabeth Meyer expose a diverse and expansive set of considerations of site in the

design processes of landscape designers and architects including Downing, Olmsted Sr. and Jr., Jensen and Eckbo among others (Meyer, 2005).

Educators have also sought to expand current analytical practices and develop new methodologies. Caroline Lavoie promotes sketching on site as a 'form of information gathering and understanding the landscape setting' (Lavoie, 2005, p. 13) while Katherine Jenkins details analytic methods that 'promote direct engagement in the field while piloting empirical tools that record open-air encounters' (Jenkins, 2018, p. 6). In review of Council of Educators in Landscape Architecture (CELA) Annual Meeting Proceedings from 2012-2017 and Landscape Research Record (LRR) publications from 2013-2017, a keyword search for 'site inventory' and 'site analysis' results in multiple references to both the traditional and boundary-pushing approaches. For example, Watts, D. and Torres note opportunities to integrate new 'off-site' technologies for conventional inventory approaches (Watts, D., 2014) while Smith, Erdman and Billig discuss the recording of perceptions through on-site drawing linked to the design process (Smith, 2016). Other works emphasize traditional and innovative approaches to data collection. Lowe and Voos propose an immersive and 'site-specific' methodology to data collection (Lowe, 2014) while Lickwar et al. note the importance of being in the landscape or in the author's words "confront[ing] the world directly in all its messiness and agonism" in the design process (Lickwar, 2016). While the more objective and analytical forms of site analysis are not in direct confrontation with the more personal and intuitive approaches, the differences can be challenging for the educator and student of landscape architecture. On the one hand, professional curriculums require a certain set of skills and knowledge, yet contemporary approaches seek innovation and new opportunities.

2.2 Fieldwork Practices

In *Fieldwork: Definition, History, Ethics*, Lickwar et al. asks "What can landscape architecture learn from other 'fieldwork disciplines' such as geography, anthropology, and the natural sciences?" (Lickwar, 2016). In considering the landscape as an opportunity for discovery and/or design, the immediate response to the question is 'much.' Fieldwork can be described as the immersion by the researcher in a setting, group or area of study in order to conduct inquiry (Wolcott, 2005). While supplementary information is gleaned through literature reviews and background collection, primary data collection occurs outside a controlled laboratory environment. Various disciplines use the fieldwork heuristic ranging from biology, through the observation of certain animal species in their natural setting, to anthropology, through observation of social settings or cultural groups (McCall, 2006).

Practices vary across disciplines but share three notable commonalities – immersion in a particular setting, observation of the subject matter, and recording of observations in a systemic manner. Both McCall and Wolcott describe fieldwork as conducting primary research through immersion 'in the field' or 'outside the controlled settings of a library or laboratory' (McCall, 2006; Wolcott, 2005). Various anthologies of fieldwork in both the natural and social sciences document the rigorous observation and recording techniques (Jackson, 1987; McCall, 2006; Watts, S., 1996). Results and conclusions are reached based upon information gathered and documented while being in the field. Traditions and methods can be traced to Victorian-era natural history excursions as European cultures sought scientific knowledge from across the globe (Camerini, 1997). Expeditions by natural historians such as Charles Darwin, depended on field study, observation and material collection for the discovery of new knowledge. Contemporary fieldwork methods build on these traditions, but have roots in the social sciences, particularly Anthropology. During the late 19th and early 20th centuries, researchers in Europe and America expanded research on human populations to rely less on references, theoretical speculation and isolated interviews and more on immersion into a particular setting or population for direct observation and methodical recording (McCall, 2006). Another commonality among disciplinary approaches is the adaptability and malleability of methods. Fieldwork is commonly described as complex, as a set of procedures and not a single method, as requiring adaptability over rigidity, and as deeply personal (Jackson, 1987; LaReau, 1996; MacClancy, 2011; Wolcott, 2005). Noted Anthropologist Harry Wolcott explores fieldwork as an "activity incorporating elements of both art and science" where scientific research methods combine with artistic sensibility to both observe and portray a subject group.

Fieldwork practices and traditions also have connections with design and design-related fields. Within the field of cultural landscape studies, methods rely heavily on an ability to 'read' the stories embedded in the landscape leading to understanding about the people and their relationship with the land (Lewis, 2003). These efforts stem directly from the writing of J.B. Jackson, who does not profess a particular technique or method of study of the landscape, only describes the goal of the effort as "a rich and beautiful book is always open before us. We have but to learn to read it." (Jackson, J.B., 1951). Connections with field-based study and

practice can also be seen in American land art practices of the late 1960s, particularly in artist Robert Smithson. Smithson, an oft-inspirational figure for landscape architecture, ventured into over-looked, industrial and barren landscapes, initially to observe and document the landscape, and later to create art. Scholar and artist, Emily Scott argues that Robert Smithson embarked on fieldwork-like journeys as a creative-critical act seeking spaces in which to stage a particular set of critiques. Additional connections between the design fields and fieldwork include the 1968 research study by Robert Venturi and Denise Scott Brown's *Learning from Las Vegas*. Methods merged scientific observation and recording techniques drawn from the discipline of sociology with graphic representation experiments to both understand and reveal urban form (Chapman, 2009). Landscape architecture's more direct connection with fieldwork can also be noted in sociologist and urbanist William H. Whyte's 1980 study *The Social Life of Small Urban Plazas*. In this field-based study, Whyte adapts the technology of time-lapse photography with the observation of urban spaces to test a hypothesis on how people use a particular landscape. This work, in print and film, is a foundation of many landscape architecture curriculums.

In review of fieldwork traditions of other disciplines, connections with site analysis are readily apparent. Both methods require an initial time to frame the study and approach, visit the field (or site), observe specifics of place, and record information. These practices are followed by a period of evaluation or analysis of the data in order to produce findings or conclusions. Within the realm of instruction on methods and techniques, similarities can also be found. Students in landscape architecture conducting site analysis and students in disciplines using fieldwork are expected to know best practices and methods, but curriculum rarely has adequate room for focused efforts or faculty don't have time to fully teach the subject (Jackson, 1986; Lickwar, 2016). Like site analysis, best practices and mastery of approaches are best learned through learn-by-doing approaches and experiences (Jackson, 1986; Lareau, 1996; McCall, 2006). Considering the many apparent, face-value similarities between fieldwork and site analysis, learning from related disciplines has the potential to generate new directions in landscape architectural practice.

3 HYBRID METHODS

The three approaches presented in this paper strive to incorporate fieldwork techniques from the arts and design fields, social sciences and natural sciences to better inform the comprehension, documentation and visualization of the landscape. The approaches also form hybrids between fieldwork and site analysis techniques with the purposes of developing a deeper understanding of site and context, learning from and about the landscape and informing the design process. The hybrid methods build on fieldwork's reliance on immersion, observation and recording of the subject, qualities prevalent across disciplinary approaches (Jackson, 1987; McCall, 2006; Watts, S., 1996; Wolcott, 2005).

Within fieldwork, immersion refers to more than being 'in the field.' Immersion requires time and commitment. For social anthropologists, immersion is critical to participate in the setting, observe over a length of time and be present for "an illuminating serendipity: the unexpected event which can make us revise our understanding of local life" (MacClancy, 2011, p. 18). Immersion in the research setting or group allows for a greater personal attachment and opportunity for a deeper level of understanding (Wolcott, 2005). Immersion also allows for the researcher to move from an outsider position, to what is characterized as a 'participant-observer' thus reinforcing an understanding of the research subject through participation with the group (Jackson, 1987). Observation is more than simple looking or seeing. Observation is thinking critically about what we see and inquiring about the reasons for what we see. In *Essential Environmental Science*, authors Simon Watts and Lyndsay Halliwell note that observation requires much work before setting out "because only then will you know: (a) what you are supposed to see; (b) whether what you are seeing is what you are supposed to see; and finally (c) reasons for things that you may have recognized" (Watts, S., 1996, p. 2). Recording is a critical skill in fieldwork across disciplines. Techniques and data vary from project to project but often include quantitative values and qualitative descriptions. Recording aids in the process of understanding and functions as an archive of the researcher's observations (Blommaert, 2010). The list of techniques of recording noted in fieldwork manuals is long and similar to site inventory techniques - notes, photography, interviews, cataloging, coding, recording, and diagramming (Wolcott, 2005, Blommaert, 2010).

Fieldwork literature and manuals also note several techniques for data analysis, synthesis and developing research conclusions. This paper does not discuss specific analytic methods or how fieldwork influenced design efforts. The hybrids utilize visualization techniques to portray observations and findings. Results are interpretive of the place and landscape, with the intention to set up a future design action. Fieldwork across disciplines is similarly interpretive. Blommaert notes that ethnographic fieldwork is

“interpretive research in a situated, real environment, based on interaction between the researcher and the subject(s), hence, fundamentally subjective in nature, aimed at demonstrating complexity, and yielding hypotheses that can be replicated and tested in similar, not identical, circumstances” (Blommaert, 2010, p. 17).

3.1 Fieldwork Hybrids - The Palette

This hybrid method combines rigorous fieldwork observation and recording techniques with the use of the palette. The term palette is often synonymous with an artist’s hand-held paint board, although in this instance, palette refers to the spectrum of attributes of the landscape. As an opening exercise within site-scale design projects, a short prompt directs students “through careful observation, record and reveal unique qualities and characteristics the site and landscape context landscape using photography (digital or print) or other static medium.” Students must produce a multi-image display that captures their individual observations of place. Offered over the years to various course levels from 2nd through 5th year capstone, the purpose of the method is to push critical inquiry of the landscape while tapping into the familiarity of readily-available technology (digital and cell phone cameras). The hybrid is designed to allow for seeing and recording in a meaningful way for those that might not be confident in drawing or sketching, know data analysis software such as GIS, or have practiced site inventory and analysis skills. The hybrid encourages being in the landscape, careful examination and rigorous documentation.

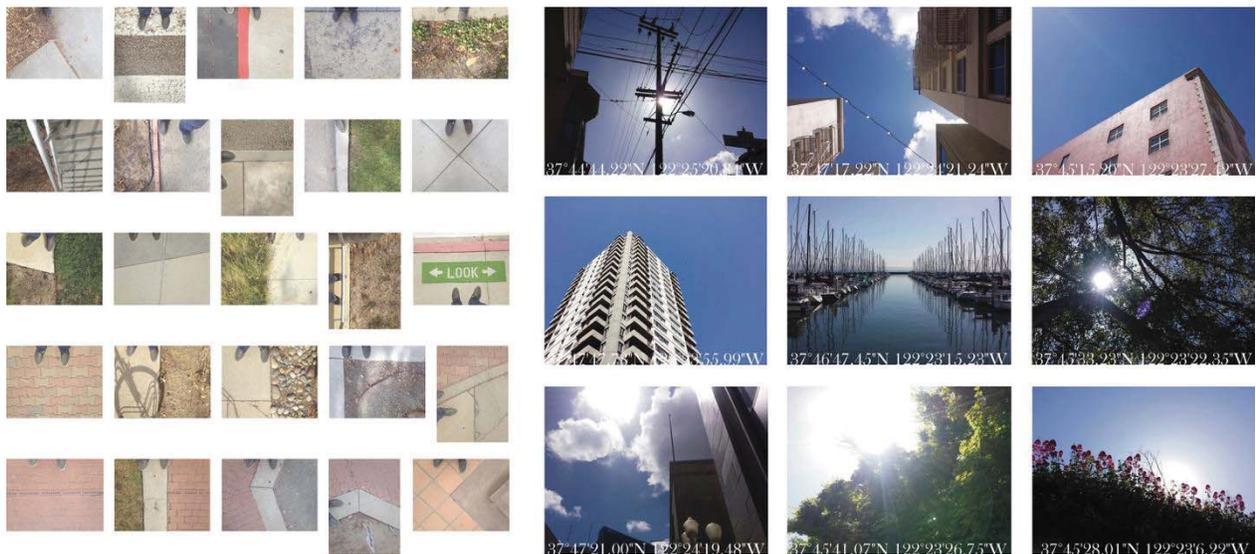


Figure 1. Student work emphasizing observed materials and atmospheric qualities, ground plane materials for a campus landscape (left), figured sky recordings for an urban environment (right). Palettes by Tyler Reed (2015) and Patrick Kelty (2017)

The short assignment prompt is supported by a discussion on the scope of the site and landscape context, the process and value of observation, preliminary identification of qualities and characteristics of the site, methods of recording, the potentials and pitfalls of the palette, and opportunities for representation. Emphasis is placed on considering the exercise as a kind of research conducted through being in the landscape or field. Students are introduced to the concept of fieldwork “as a particular kind of systematic research practice based on naturalistic observation,” “an archive that documents our communities and cultures,” and “a methodology of knowledge creation” (Fox, 2006, p. 347). This conceptual understanding of the method is supported by practices of observation and rigorous recording. Observation is promoted as requiring both forethought and continuous consideration of “what to look at, what to look for, and the never-ending tension between taking a closer look at something versus taking a broader look at everything” (Wolcott, 2006, p. 89).

After observation and recording, students spend additional time analyzing and formatting images. Narratives are not revealed through a few photos swiped on a mobile device or placing images on a poster. Like the outcomes of site analysis informing site planning decisions, the outcomes of this fieldwork hybrid are intended to inform and inspire future design directions. Students are encouraged during this analytic phase to consider design implications and how the represented palette can lead to and inform design directions. Students investing in the process, show strong appreciation and understanding of a particular quality or set of characteristics observed in the landscape (Figure 1). New understandings of the landscape are revealed through in-depth studies of materials, temporal qualities or observed qualities. Results show students connected to and invested in a process of careful observation and recording with the intent of producing a new way of understanding the landscape.

3.2 Fieldwork Hybrids - The Transect

This hybrid takes advantage of the transect, an observation and data collection method utilized in natural science fieldwork. The transect (trans meaning through and sect meaning cut) allows a researcher to observe and record a set of field observations sampled along a line crossing the study area (Watts, S., 1996). Transect sampling is utilized to study large areas that can't be fully explored or to reveal relationships between ecological zones or communities. 19th century naturalist and explorer, Alexander von Humboldt, popularized the transect in fieldwork excursions to the Americas to observe and record the biological diversity, revealing findings in large, annotated cross section drawings of the landscape (Braae, 2013). The transect requires a researcher to carefully plot a path of travel or section through the site, develop a sampling method and record observations along the section. The transect has been utilized by the design fields for both analysis and design of the landscape. Ellen Brae, Lisa Diedrich and Gini Lee have utilized the transect and von Humboldt's methods to both map and narrate the landscape (Braae, 2013, Diedrich 2014). Within the design fields, transect planning is based on the fieldwork method and proposes that zoning policy should reflect a range of urban habitats and environments from rural to urban along a continuum (Duany, 2002).

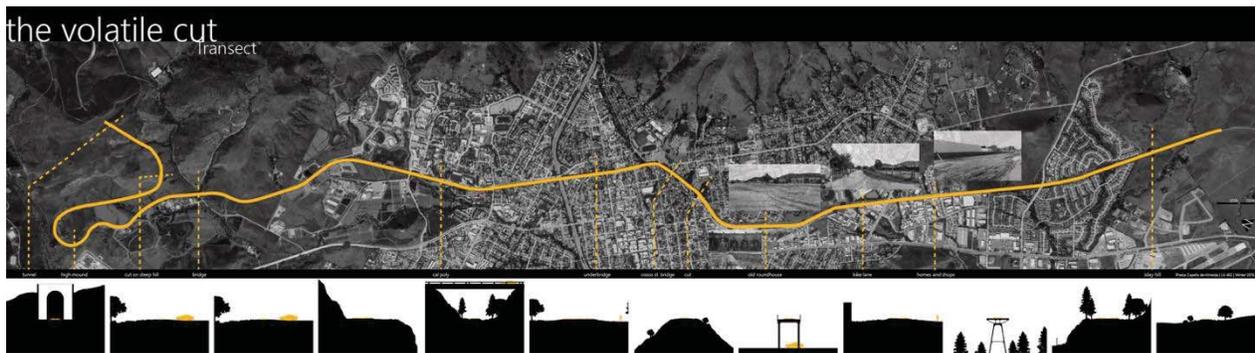


Figure 2. City-scale transect observations along rail line in San Luis Obispo, recording major spatial configurations in relationship to topographic modifications. Work by Raisa Capella de Almeida (2016)

This hybrid method is deployed in studio courses with large landscape contexts, such as university campuses or urban environments. The assignment prompt directs students to plot a transect, or path of travel, across the landscape and record observations about a set of conditions. Recordings are taken at pre-defined intervals and strive to capture similar information at each stop. The project's learning goals include having students experience, record and reveal the landscape from new perspectives and techniques; to make visible distinct parts, systems and sites of the landscape context; and to discover what site data, research and information is required to conduct future design efforts. Supporting presentations discuss fieldwork and design approaches utilizing the transect. Discussions emphasize the necessity for defining the project scope and focus. Prior to getting in the field, each student must answer: what are you looking for? what do you want to reveal? where will you look for it? what are the boundaries and limits of the landscape? what is your path of travel? how will you record information?

Students spend additional time organizing and analyzing results and formatting outcomes upon completing observation and recording. As an open-ended project, results often reveal highly personal connections with the landscape, such as favorite paths of travel or notable places. Other results, showcase relationships including activities/functions, spatial structure, natural and social histories and observed qualities of place (Figure 2). Operating at the largest of scales, students sometimes struggle with the applicability to future design efforts. In these efforts, transects are framed as becoming oriented to the landscape context for future design studies. Within smaller contexts, the transect can allow for greater understanding of issues such as connections among topography, stormwater features and campus layout (Figure 3).

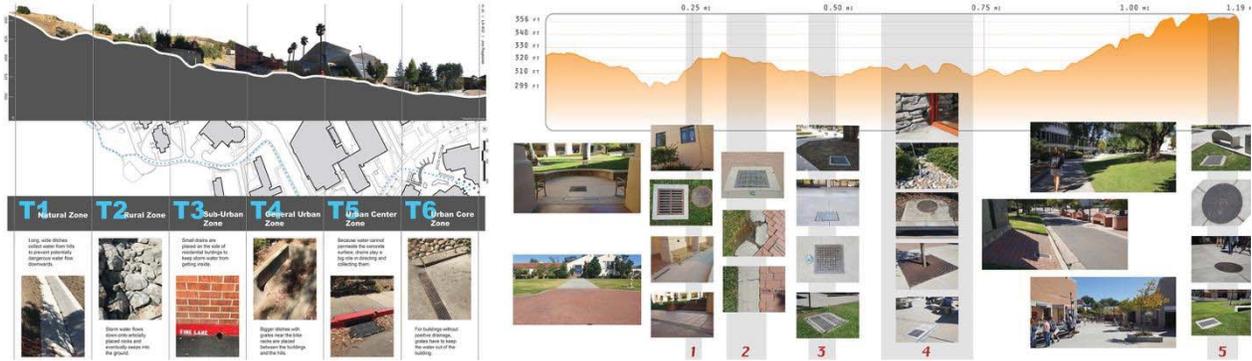


Figure 3. Campus-scale transect observations record storm water and drainage features in relationship to topography and campus structure. Work by Kevin Jo (2017) and Misty Wada (2017).

3.3 Fieldwork Hybrids - Immersive Observation and Recording

A third hybrid method relies on immersion and the use of a participant-observation methodology to understand, observe, record and reveal a cultural landscape. As noted earlier, immersion into the setting is a cornerstone of fieldwork, particularly social science fieldwork (McCall, 2006). Participant-observation methods rely on the researcher taking part in daily interactions with the study subject thus providing greater exposure and the opportunity for in-depth observations and recordings. McCall notes participant observation 'in a broader sense, as naming not a single method but a necessarily multimethod, mixed-method mode of research in which both participation and observation figure prominently' (McCall, 2006, p. 4). Immersive, participant-observation methods offer great potential for the research of complex landscape architectural issues, like the field of cultural landscape studies that rely on observation and recording where primary source material is not readily available.

The author's research investigation, *Source + Surface: Diptychs of Extraction and Production* was the result of immersion in the study site of Rome, Italy, as a Fellow at the American Academy in Rome. The research was conceived as a broad search for revealing insights into the source landscapes of the monuments and architectural works of the city center. The research posits that for every constructed surface in Rome, there lies an equally excavated and transformed site outside the city center. When a literature review noted limited resources into the source landscapes, the research methodology turned to an iterative process of being in the field, obsessive observation, exploration of the landscape, mapping and documentation. As Gillian Rose notes "fieldwork is all about looking [and] the visual is central to claims to geographical knowledge: a president of the Association of American Geographers (John Fraser Hart) has argued that 'good regional geography, and I suspect most good geography of any stripe, begins by looking'" (Rose, 2008, p. 171). By relying on observation and daily interaction with the materials, connections could be proposed, then through further book research, verified or expanded. For example, regular observations of the Servian Walls, noted the use of varied stone materials in different construction configurations. Successive research, verified the material nomenclature and potential locations of origin. A return to the field, produced potential source quarries through a process of exploration, observation and verification.

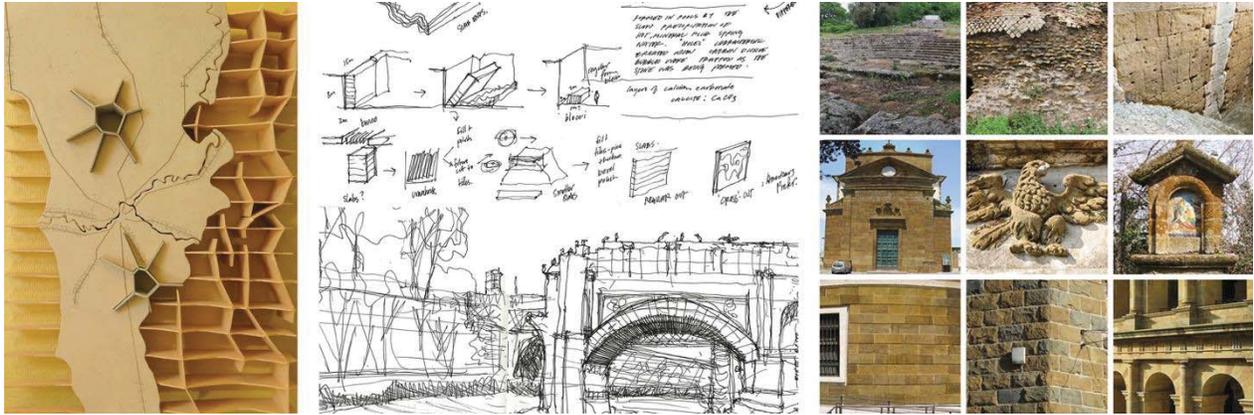


Figure 4. Mixed-method fieldwork recordings included large scale mapping/modeling (left), daily sketching (center), and photo-documentation of material use (right). Work and photos by author (2004 – 2015).

As the project developed, daily interaction and observation with the sites and landscapes solidified an understanding of the landscape and knowledge creation. The process was not linear, however, but continued to constantly probe the research subject in an iterative manner as described by Blommaert (Blommaert, 2010). Long-term immersion allowed for continually asking critical questions *what am I looking for?* (problem setting), *what is already known?* (background data collection), *where might I look for answers?* (inquiry), *where do I go?* (fieldworks, exploration and immersion), *what do I see?* (inventory), *how do I record?* (observations and data collection), *what does it mean?* (analysis), and *how do I report findings?* (creative responses). Observations and data collection included a mixed-method approach, including: macro and panoramic photography, study modelling, sketching and mapping, measured drawing, and material sampling (Figure 4). Fieldwork studies were summarized through the creation of visual images, models and diagrammatic relationships. Through immersion, observation, making and reflections the study grew to reveal a relationship between the source and surface landscapes, between extractive spaces and constructed surfaces, between landscape and city. Revealing the connections between the ‘source’ extractive landscape outside the city and the ‘surface’ constructive landscape within the city walls, became the emphasis of the study. The relationships and connections between landscapes are revealed through the use of the diptych - an ancient and adapted art technique which scholars point to the artist’s establishment of purposeful relationships between the images and to the intention of connecting the viewer with the images (Hand, 2006). Diptychs forge connections between sites of extraction (abandoned quarries, forgotten communities and unique cultural and ecological landscapes) with sites of production (buildings, facades, temple bases, roads and walls) (Figure 5). Fieldwork methods produced a deeper understanding of the landscape, a solidified connection between the landscape with the city, a strong influence of the geologic conditions on urban form and a narrative of material use and landscape transformation in the development of the Eternal City.

4 DISCUSSION

4.1 Challenges

Several challenges are noted in the development of fieldwork hybrids. Practices are varied and often evolving instead of lockstep. Although the themes of immersion, observation and recording are prevalent across practices, the literature points to varying methods and techniques among disciplines. Developing, piloting and implementing hybrid methods takes time, focus and a commitment to ongoing refinement of best practices. Student assessment of the hybrid method exercises as well as author reflection on hybrid practices confirms the need to carefully consider when and how to sample from other disciplines. Like design, however, fieldwork is iterative and offers many opportunities for both professional development and continued refinement of best practices. Literature sources also often include advice and opinion for those interested in the subject. Anthropologist and education researcher, Harry Wolcott provides advice for who should and should not conduct fieldwork: “Fieldwork is not well suited for individuals who thrive on authority and expertise and feel they must know everything about whatever subject they touch. Nor is it comforting for anyone obsessed with

maintaining control. But fieldwork is wonderfully suited for those who find satisfaction as lifelong learners, ever appreciative of how much others know and have experienced, rather than in need of parading their own knowledge before audiences.” (Wolcott, 2005, p. 225). In the introduction of *Fieldwork*, author Bruce Jackson notes on the first page that “useful fieldwork isn’t easy” and on the concluding page “I’ve never had what I’d call a perfect field experience” (Jackson, 1987). Approaches and acceptance may be more amenable to certain learner types based on these words from notable sources.



Figure 5. A large-format, photomontage diptych records a connection between the travertine source quarry landscapes near Bagni di Tivoli (left) and surface uses in the city center at the Colosseo Quadrato/Palace of Italian Civilization, EUR (right). Photos by author (2004).

A reflection on the construction of fieldwork hybrids for landscape architecture education and research method for ongoing fieldwork also offers more practical challenges for consideration. Fieldwork takes time and commitment. In order to gain a deep-understanding of place through immersion and observation, students and practitioners will be required to spend significant time on the study site. Time can be particularly challenging to find within a given academic term or to be compensated for within professional practice. Within the education environment, students may also doubt practices with which they are uncomfortable or don’t maintain a clear understanding of how the approach may apply to future efforts. Student reflections on the methods have included statements such as ‘I’m not a photographer or researcher. I am a designer.’ or ‘I wasn’t interested in looking very hard at things I was going to change on the site.’ A final practical challenge can be found in moving from recording to analysis. Being on-site, looking and recording can be engaging and an inventory can be produced. Moving from recording to analysis, from recording to determining meaning, significance or impact requires much critical thinking.

4.2 Opportunities

Fieldwork practices and the hybrid methods presented, offer tremendous potential for the instruction, research and practice of landscape architecture and to address concerns about conventional methods noted previously (Burns, 2005; Corner, 2005; Meyer, 2005). Hybrid methods can also address concerns noted with the profession’s complaisance with and reliance on digital resources and techniques for analytical decision making during the design process (Jenkins, 2018; Lavoie, 2005). Within the classroom, hybrid methods provide additional time in the landscape and an opportunity to hone observation skills. Direct observation and recording in the field has the opportunity to move site inventory and analysis from a checklist of required review items or examination of externally acquired data sets towards a more discerning and directed approach to

understanding the landscape. Inventory and analysis can become a physical act conducted within the study site and not reliant on a detached examination of digital data sets. Inventorial facts and diagrams of sun patterns, wind directions and locations of noise and wind could be replaced with critical inquiry of the site in order to better inform the design process. Students could be challenged to both think about and respond to questions about what site or landscape is, what could or should be observed, what potential can be found through a detailed examination of place and how could complex issues be better represented? Fieldwork hybrids also offer tangible and intangible opportunities for those studying the landscape through the discipline of landscape architecture. Fieldwork methods including immersion, observation and recording methods both offer and require the pursuit of an understanding of place (Blommaert, 2010; Jackson, 1987; MacClancy, 2011; Wolcott, 2006). Pursuing hybrid methods has the potential to refine research processes, develop broader conclusions and experiment with the representation of results. Cultural landscape studies, for example, might further develop or expand approaches for observation skills, data collection and reporting of findings by drawing from fieldwork disciplines. Within practice, detailed representation of site issues could increase client and community awareness and value of the landscape. A deeper understanding and a portrayal of site and context issues could also lead to greater buy-in of design efforts. The development of scholarship and literature on fieldwork practices can be an additional opportunity for faculty and practitioner professional development. The author is aware of ongoing efforts in this area, for example Thomas Oles' and Paula Horrigan's forthcoming book, and looks forward to continued efforts to learn more about the practices and methods.

5 CONCLUSION

While landscape architecture practices continue to evolve, educators and practitioners might consider further investigation into the methods of fieldwork for both research and design endeavors. Science, research and design do not need to stand apart from one another. In fact, within fieldwork disciplines, the approaches to problem setting, process and the creation of results and outcomes share many connections with landscape architecture design process. Exhaustive literature exists for fieldwork practices for anthropology, ethnography, biology and geography. Several resources provide well-documented methods for immersion (McCall, 2005), observation and recording techniques (Jackson, 1987; Watts, S., 1996; Wolcott, 2006). Additional literature documents well known fieldwork investigations and best practices (Lareau, 1996; MacClancy, 2006). These resources should be key for future efforts adapt methods and practices for the profession. New methods and techniques for analysis and inventory can be formed by rigorously sampling fieldwork methods from the environmental and social sciences. The three fieldwork hybrids presented, two academic exercises and one research investigation, initiate new directions for inventory and analysis research methods in landscape architecture. The palette fieldwork hybrid strengthens connections with the landscape through careful examination and rigorous documentation. The transect fieldwork hybrid solidifies awareness of landscape contexts. The immersive observation and recording hybrid articulates the need for critical inquiry and deep understanding of the landscape. The hybrids reinforce an emphasis of fieldwork on immersion with the study subject, focused observation and meticulous recording. As Elizabeth Meyer notes, 'site concerns challenge the modern divide between rational site analysis and intuitive, creative conceptual design' (Meyer, 2005). Fieldwork hybrids provide a framework for reading, recording and revealing the landscape and look to contribute to methods and practices leading to deeper understanding of the design potential of the landscape.

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