

**“Transdisciplinary Action Research” in Community Design and Planning**  
**Theme Issue of *Landscape Journal***

**July 2009 DRAFT INTRODUCTION AND LEAD ARTICLE**  
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**Introduction to the Theme Issue**

Over the past few years *Landscape Journal* has featured a series of articles that collectively articulate the considerable research challenges faced by a discipline whose focus of study is a social construct delineated in physical and temporal reality on a case by case basis.<sup>1</sup> Those articles articulate a need for systematic methods of inquiry capable of gleaning insights that transcend discrete cases, to forward the growth of knowledge in the design and planning professions. This theme journal explores the implications of recent approaches to “Transdisciplinary Action-Research” to address this need.

This introductory essay offers a conceptual framework to address the challenges at hand and introduces the collection of case studies in Transdisciplinary Action-Research that comprise the bulk of this compendium. The concluding essay is a compilation of insights from the panel of authors as they explore the framework offered in the introductory essay for implications for the growth of knowledge in Theory, Practice, Methods, and Pedagogy.

**Get Meta/Stay Grounded: Exploring the Implications of the Science of Transdisciplinary Action Research for Theory, Practice, Methods, and Pedagogy in Landscape Architecture**  
**Part One: “Get Meta”**

**Defining the Problem:** Recognizing that the practice of Landscape Architecture collectively addresses a wide range of issues, Crewe and Forsyth (2003) analyzed recent published works to identify six “theories of practice,” each with distinct intellectual and ethical underpinnings. The authors explicitly state that the intention of their research is to provide a framework that will help the profession “think systematically about practice.” Brown and Jennings (2003) responded by calling for the development of a “collective consciousness,” informed by both the ecocentric and anthropocentric values of the profession. Recognizing the relatively coherent underpinnings of the ecocentric approaches, Brown and Jennings turn to critical social theory to construct an equally coherent framework to address the theoretical and methodological blindspots to the anthropocentric values revealed by Crewe and Forsyth. Significantly, both of those articles recognize the intersection of ecocentric and anthropocentric values in one of the six theories of practice identified in Crew and Forsyth’s typology: the “plural design” approach. However, while both articles explicitly recognize the value of plural design to the users/participants and local issues, their analyses illuminate the inherent limitations of these relatively small scale projects within their larger social and ecological contexts.

A recent theme issue of *Landscape Journal* features a number of articles that further illustrate these limitations while they reflect on the pedagogic value of plural design’s integrative approach. In that issue, both Hill (2005) and Larson (2005) reflect on the intersections among the diverse underpinnings of the profession that played out in studio-based “cross-cultural participatory action research” projects.

Guest editors Hill and Chang explicitly state that their intention in collaborating on a theme issue was to generate discussion that “will eventually allow us to develop new pedagogies for a multicultural world.” (2005). In her reflections on the theoretical and methodological underpinnings of this type of plural design, Larson (2005) reiterates Hester’s (1999) call for “new methods and processes that encourage vision and sustainability, while also including checks and balances to assure justice.”

In an earlier issue of *Landscape Journal* Thering and Doble (2000) explored the connections between the environmental and social justice movements in the late 20th century and the emergence of participatory processes in community decision making. Drawing on history, theory, and literature from a broad spectrum of disciplines, we included a working definition for the hotly debated term “sustainability”, which framed the term as an emerging paradigm for education and research. We then used that heuristic in an analysis that juxtaposed the need for multi-disciplinary, participatory approaches to complex social and ecological conditions, against traditional theories, methods, and structures of education and practice. That analysis suggested the highest ideals of “sustainability”, and concurrently, the highest ideals of the profession, are attained through plural design projects. However, the limitations of this relatively recent approach are becoming increasingly evident. As Crewe and Forsyth’s analysis clearly reveals, and Brown and Jennings explicitly state, “the cumulative lessons of these discrete projects have not yet coalesced into a coherent dialogue.”

This is a dilemma: We find ourselves with only one approach to practice that is capable of integrating ecocentric and anthropocentric values, and we are at a disadvantage when that approach is inextricably bound to methods that limit its application to relatively small scale projects. Thus, when the scale of a project renders plural design approaches impractical, our theoretical underpinnings default to ecocentric values, or, after Brown and Jennings, perhaps split into two separate conceptual frameworks, with no integrative methodology.

The collective angst of those in the profession who evaluate such things is most tellingly revealed in the editors’ introduction to Hill and Change’s theme issue. As Chief Editors of the flagship journal of the profession, Deming and Palmer (2005) ask “What to do?” with case studies of plural design projects that do not fare well in peer review because they fail to “validly and reliably identify general themes through systematic inquiry across a series of similarly prepared cases”. Deming and Palmer offer the theme issue as an “imperfect truce,” gambling that “the whole is greater than the sum of its parts.” Although Deming and Palmer acknowledge that the compendium lacks “forceful overarching argument or general principles,” they use this as an opportunity to ask their readers to look for “cogent principles” and “synthesize the broader patterns” (2005). However, within these critiques we find a general agreement that the plural design approach functions as an integrated approach to professional education and practice, and the approach is effective within each project’s discrete sphere of influence.<sup>2</sup>

Thus, as Deming and Palmer’s editorial suggests, we should not abandon case studies that engage plural design methods to the realm of “one-off studies” (2005). Rather, we should explore research methods that engage local issues while simultaneously facilitating systematic inquiry into the connections between scales, and across cases, to synthesize the broader patterns, seek cogent principles, and distill the cumulative lessons. Thus, the title of this article: “Get Meta/Stay Grounded.”

In health science and ethnographic research, similar challenges are being addressed by “Qualitative Meta-Analysis”. Recent literature on these emerging research methods is briefly reviewed below.

**Qualitative Meta-Analysis:** Literature reviews cite Stern and Harris (1985) and Noblit and Hare (1988) as the first to publish methods of qualitative meta-analysis in their respective fields. Stern and Harris conducted a qualitative meta-analysis of case studies of patient/practitioner interactions with the aim of developing a theory that could explain findings. Noblit and Hare developed their approach to “meta-ethnography” to reconcile different ethnographers’ interpretations of the same phenomena in studies of educational institutions. More recently Paterson (2001) differentiated between meta-analysis, meta-method, and meta-theory as distinct components of a “meta-study” approach, with the aim of identifying similarities and differences among qualitative research reports.

These examples illustrate the key difference between qualitative and quantitative meta-analyses; the former aims to increase validity of conclusions about causation, while the latter seeks to understand and explain phenomena (Bondas & Hall, 2007; Walsh & Downe, 2005; Nicholas et al., 2006; Paterson, 2001; Paterson et al., 2001). For purposes of simplicity, the term “meta-analysis” is used in this paper. The issues of scope, criteria for selection, sample size, and framing are key aspects and topics of debate amongst researchers exploring qualitative meta-analysis methods. In general, selection criteria and sampling methods impact validity, while the number of studies and the relative scope impact the manageability of the study while limiting either the depth of analysis or the transferability of the knowledge generated. On one end of the spectrum are approaches that suggest the ideal goal of a qualitative meta-analysis is the inclusion of all relevant studies in the field. On the other end of the spectrum are approaches that limit the number by limiting the scope to studies that are grounded in similar methods or theories. However, “framing” is crucial to all these aspects, and, as with other research methods, it is the research question, purpose, or aim that determines an appropriate or effective framework (Bondas & Hall, 2007; Walsh & Downe, 2005).

This necessarily brief review of these emerging research methods offer a timely response to the challenges articulated by the collection of *Landscape Journal* articles overviewed above. However, this review suggests that an exploration of the implications of qualitative meta-analysis for these challenges will be best served by a framework and criteria for selection particularly suited to case studies in plural design. Fortunately, a recent article about “The Science of Transdisciplinary Action Research” offers some insights. This article is reviewed below.

## **Part Two: Get Meta/Stay Grounded**

***The Science of Transdisciplinary Action-Research:*** Writing in the *American Journal of Community Psychology*, Stokols (2006) analyzes the history and development of “action-research” to construct a three dimensional conceptual framework “Toward a Science of Transdisciplinary Action Research.” The dimensions of this framework are: 1. Geographical Scale (Local Group; Community; Regional; and National/Global); 2. Analytical Scope (Biological; Psychological; Social/Environmental; and Community/Policy); and 3. Organizational Scope (Intra-organizational; Inter-organizational; and Inter-Sectoral). Stokols explains that this newly emerging field approaches “transdisciplinary action research” as a topic of study in its own right. The intention of this science is to develop a “broadly integrative, transdisciplinary model of community research and action that assigns high priority to the study of collaborative interactions and outcomes among scholars, community practitioners, multiple organizations, and as they occur within local, regional, national, and international contexts.” Stokols explicitly states the primary reason for developing a “science” of transdisciplinary action research is to better our understanding of both the facilitators and impediments to effective transdisciplinary collaboration, such that future initiatives can be organized in ways that enable them to more effectively achieve their community problem solving goals.

Stokols illustrates the distinction between transdisciplinary action research and the systematic study of it by pointing out that action research initiatives often require coordination among different types and

scales of collaboration. It is when these types and scales of collaboration are systematically linked together to translate research findings at the community scale into public policies and programs at regional, state, national, and/or global scale, these collaborations comprise interrelated facets and sequential phases of a unified transdisciplinary action research cycle. Importantly, Stokols explicitly states that the foci of analyses are the connections between these facets, phases, and scales, and it is the systematic analysis of the outcomes, relative to these foci, that forwards the core concerns of the science of transdisciplinary action research: the growth of knowledge in Theory, Practice, Methods, and Pedagogy.

To translate this brief exposition of Stokols' work, and illustrate its relevance to our exploration of methods of qualitative meta-analysis for research in landscape architecture, I suggest Stokols' descriptions of both the aim and the foci of the science of transdisciplinary action-research succinctly operationalizes the research question articulated in Part One above, and I posit Stokols' three dimensional framework as an appropriate criteria for selecting case studies for a qualitative meta-analysis.

***Identifying Case Studies for a Qualitative Meta-analysis.*** [Note to reviewers: This section will offer a two or three sentence introduction to each of the case studies that will be included in this theme journal. Introductions to the three case studies that already have preliminary approval are inserted below to illustrate the concept]:

The first is an ongoing initiative that grew from a series of studio-based participatory community design projects into a state-wide "Brownfield Initiative." That initiative partners local level elected and appointed officials with university outreach, non-profit organizations, and state agencies to systematically address the common issues faced by neighborhoods dealing with the repercussions of their industrial heritage. The second is an initiative that began as an experiment in multi-disciplinary, participatory approaches to remediation and redevelopment of Acid Mine Drainage contaminated lands in former coal mining communities. The "AMD&ART" initiative has since become a model for partnerships between federal, state, non-profit, and academic institutions and communities across thirteen states. The third began as a series of outreach projects coordinated in partnership with First Nations and a Land Grant University Extension. That initiative grew into a multi-state program partnering First Nations with university outreach, non-profit organizations, and state and federal agencies for "Green Community Development in Indian Country."

Each of these initiatives fit the "Geographic Scale" dimension of the selection criteria by transcending from "one off" case studies into regional or state wide initiatives. Each fit the "Analytical Scope" dimension of the selection criteria by engaging expertise across local knowledge, natural science, social science, design, and public policy. And each fit the "Organizational Scope" dimension of the selection criteria by engaging and effecting decision making and communication processes within and between communities, organizations, and sectors. The concluding essay offers a synthesis of these shared experiences, reflections, and insights to illustrate the implications for the growth of knowledge in theory, practice, methods, and pedagogy in the planning and design professions.

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<sup>1</sup> Cosgrove's (1984) exploration of "Landscape" as a socially constructed phenomena is frequently cited by authors who explore the development and implications of western geographic thought.

<sup>2</sup> In addition to Hill 2005 and Larson 2005, see also Hou, Kinshita, Ono 2005; and Meyers, Hill &Harwood, 2005 for research on teaching outcomes. See Thering 2006, 2007 for research on community outcomes.