11. The professionalization of sustainability

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Businesses are increasingly called on to incorporate considerations of environmental and social sustainability into strategic operations, along with the economic aspects of their operations. They are asked by customers, employees and other stakeholders to move firm practices from a focus on profitability, short-term compliance and eco-efficiency to consider the long-term social and environmental impacts of operations. They respond to demands that products and services have minimal impacts on the environment and promote social equity, and showcase sustainability reports on their websites. Firms have been encouraged to develop eco-enterprise strategies (Stead and Stead, 2000), strategic management tools that enable firms to ‘stand for sustainability’ by incorporating a ‘sustainability-centered values network’. Understandably, the development of such a sustainability-centered network necessarily depends on organizational members coming together to share and apply knowledge of sustainability grounded in their individual professional training and identification. Early research (Wilensky, 1964; Hall, 1968) focused on standard organizational forms and processes, but presaged a professionalization process in which the outcome might be a network form. This chapter considers that process in detail.

This study focuses on the process of creating a shared professional identity based on sustainability, which we term the professionalization of sustainability. It considers how firm members, working together across professional disciplines, join their knowledge and values to create a new professional identity centered on sustainability. It uses a single case-study of a multidisciplinary real estate firm to evaluate how, in the cross-disciplinary setting of brownfield redevelopment, the emergent views and underlying professional values of knowledge workers, such as planners, lawyers, financial analysts and engineers, may combine to affect sustainable re-development outcomes. The study considers how multidisciplinary teams of brownfield professionals develop common language, professional norms, values and identities in the context of sustainability. It asks what
social institutions and processes exist to foster such development. And how professional conflicts are addressed.

This chapter first provides an overview of the theory and process of professionalization, focusing on past and current research and noting research gaps. Concepts inherent in professionalism are considered to propose a set of research questions. Next, background on the public policy framework applied to contaminated real estate, or brownfields, is provided, and the challenges faced by redevelopers and policy-makers seeking sustainable outcomes at brownfield sites are described. This is followed by an overview of the research methodology which utilized grounded theory to analyze case-study data from a private equity firm, Cherokee Investment Partners, which manages a $1 billion portfolio of brownfield sites across North America and Western Europe. Results from a questionnaire administered to employees and their network of professional associates involved in business execution are then presented. Finally, implications for business and public policy are provided, focusing on the design of systems to foster a common knowledge of sustainability principles in cross-disciplinary business settings, which could, in turn, accelerate the professionalization of sustainability.

**PROFESSIONALISM**

The concept of professionalism was conceived beginning in the early twentieth century as a normative value system. Those such as Durkheim (1957) and Marshall (1950) described professionalism as a communitarian process by which individual members of an occupation join forces to meet the emerging needs of their community. Under this conception professionals, generally knowledge workers, unite to solve the difficult and vexing problems of the day and are rewarded with their community’s admiration and trust as well as higher status (Evetts, 2003). For example, professionals, such as lawyers, engineers and planners, are socialized through rigorous education and subsequent membership in professional associations to develop common workplace value systems and identities, and in turn are rewarded with higher salaries, and in most cases, the public’s trust.

Professionalization is typically described as a process of learning and adopting the behavioral standards and normative values of a given occupation (Black, 1970). It has been defined as ‘the social process whereby any occupational group may take on one or more elements of an ideal type profession’, a profession that is a ‘model of occupational structure characterized by certain specified elements’ (Vollmer and Mills, 1965). Professionalization has been said generally to occur in a series of four steps: the creation of a
specialized knowledge base, the development of skills that are transferable, the development of a career focus and, finally, the development of a shared code of ethics supported by public trust (Wilensky, 1964; Caplow, 1966). Early research also considered that professionalization would be advanced by the existence of standard organizational settings: autonomous professional settings such as law firms, heterogeneous settings such as schools or public agencies and departments of larger firms (Hall, 1968).

In a multidisciplinary work environment focused on sustainability, a straightforward four-step professionalization process is unlikely to occur. Although transferable skills such as legal and engineering analysis are beneficial, the knowledge required to confront the challenge of sustainability is less specialized, and more multidisciplinary. And, while a shared code of ethics supported by the public trust is required, a career focus is not. The end result of a process of professionalization is not likely to be a new bureaucratic form such as a single-focus sustainability law firm, but rather a network of sustainability professionals who are boundary-spanners within an existing organization.

Early work on professionalization described knowledge workers coming together from established professions with standardized training, certification and ethics. But early researchers, who considered that ‘the newer professions do not seem as professionalized on the attributes' of hierarchy, division of labor, rules, procedures, impersonality and technical competence (Hall, 1968), did not envision the challenge that the creation of a sustainable world poses. In this new context of sustainability, knowledge workers come together due to a sense of calling to work with like-minded professionals. They form a new code of ethics based on minimizing environmental impacts and promoting intergenerational equity. The professionalization of sustainability is transformative. Professionals who choose to work in sustainable development must adapt existing knowledge and skills and envision a new career path. They work in network structures developing strong and loose ties with others undergoing a similar transformative professional change, adapting work practices to comport with an evolving shared ethic of social and environmental sustainability.

In light of this background on professionalization, several questions are proposed to assist in the discovery of how the process may occur in the context of sustainability-focused work. First, how do established professional identities evolve to take on the characteristics of sustainability? Second, what are the attributes of a shared professional ethic of sustainability? Third, what processes and procedures are employed to develop such a shared professional ethic? Fourth, how are conflicts between primary professional identities addressed? And finally, what do outcomes based on the professionalization of sustainability look like? Each of these
questions is examined below following a discussion of the research setting and methodology.

THE BROWNFIELD CHALLENGE

This chapter takes as its research setting the engagement of multiple professionals working to address brownfield remediation and redevelopment. A brownfield is defined as ‘real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant’ [42 U.S.C. § 9601(39)]. The United Kingdom and the rest of the European Union apply a more expansive definition that includes any previously developed property, as well as contaminated sites. It has been estimated that there are as many as 500,000 brownfields in the US (Lee and Seago, 2002), 30,000 in Canada (NRTEE, 2003) and 150,000 within the EU countries (Alberini et al., 2005).

It has been suggested that the brownfield problem grew out of two concurrent issues: the failure of omnibus government clean-up programs such as the US Superfund program (Simons, 1997) and the downsizing of the developed world’s manufacturing economy (Alberini et al., 2005) that resulted in tens of thousands of vacant, abandoned or underused industrial sites. The problem was amplified because environmental contamination was and continues to be perceived by investors and developers as an undefined, open-ended risk; pollution adds a level of technical complexity and liability exposure that creates further barriers to investment and entry into brownfield redevelopment efforts.

However, beginning in 1997, there have been significant changes in public policy and growing government action to promote brownfield clean-up and redevelopment. In the United States this includes the Small Business Relief and Brownfield Revitalization Act of 2001, which provides liability relief and funding to encourage reclamation of contaminated, underutilized real estate. Similarly in the United Kingdom, the Environment Agency is ‘committed to bringing more land into sustainable use and concentrating development on brownfield sites’ (EA, 2005). Moreover, in the face of the significant number of idle and contaminated, yet potentially valuable sites, government programs were created to encourage brownfield reclamation though public–private partnerships. These programs offer developers attractive incentives, such as simplified clean-up requirements and liability protection, limited government oversight and, in some cases, loans and grants from state-supported redevelopment funds. In addition, government authorities may trade valuable entitlements, such as a zoning change from low density to high or from industrial to residential, for a commitment by
the developer to remediate. They may also provide tax increment funding and other incentives, provided the developer can demonstrate a commensurate public benefit.

Government brownfield policies were also designed to slow the pace of environmentally unsustainable suburban sprawl and development on greenfields, uncontaminated and undeveloped lands, beyond urban transportation networks (Greenberg et al., 2001). These policies also focus on social sustainability: the revitalization of poor urban neighborhoods and the creation of jobs for their inhabitants.

In the United States, brownfield redevelopment was traditionally undertaken on a project-by-project basis. Of late, however, United States government policies have influenced brownfield redevelopment projects to be less focused on parcel-by-parcel real estate renewal; instead they have become integral components of larger community redevelopment efforts, as has long been the case in Europe (DeSousa, 2004; Wernstedt et al., 2004).

**Brownfields and Sustainability**

The four main components of brownfield redevelopment where sustainable practices are considered and can be applied include: initiation, evaluation, transaction and implementation (ASTM, 2003). Initiation includes designation of the site as a brownfield, which can be started by a government agency interested in addressing the pollution, or by a potential investor and developer interested in the property as a business opportunity. Evaluation entails an assessment of the viability of the brownfield redevelopment and includes a review of real estate issues, as well as the site environmental conditions. Transaction is the change in ownership and will usually include a resolution of clean-up responsibilities and liability. And finally, implementation includes obtaining entitlements, implementing land-use planning, conducting remediation and beginning development of the built environment.

Essentially, sustainability means that decisions made today should not reduce the options of future generations, but pass on to them a natural, economic and social environment that provides a high quality of life. Brownfield projects are increasingly at the center of community revitalization plans, and their outcomes are being designed to meet present and future citizens’ needs by focusing on longer-term financial, social and environmental sustainability.

This focus on sustainability is relatively straightforward: brownfield projects must be financially viable to attract investors and developers and be economically sustainable, contribute to environmental sustainability by remediating past contamination and ensuring they can be safely reused, and designed to increase social sustainability by transforming previously
blighted real estate to a more productive use, which in turn provides economic opportunities to citizens living in poverty (see Figure 11.1). For example, a brownfield project may cover many acres devoted to open space, include commercial and residential developments which incorporate ‘green’ architecture, provide links to transportation hubs and promote physical fitness through bike paths and nature trails. For example, buildings constructed on former brownfield sites may obtain certification under LEED, Leadership in Energy and Environmental Design, a voluntary national sustainable building standard sponsored by the US Green Building Council.

Clearly, brownfield redevelopment comprises some inherently sustainable aspects. For example, pollution may be cleaned up and an old industrial site may be brought back into productive use and returned to a city’s tax roles. However, simply redeveloping a brownfield site does not ensure sustainable outcomes. Brownfield redevelopment may result in a myriad of negative impacts, including, for example, gentrification, displacement and loss of property through eminent domain, poor reuse choices driven by private gain rather than the public good, aggressive use of risk-based remediation resulting in high levels of residual pollution, traffic congestion and a lack of stakeholder involvement.

As a result, to bring more complete sustainable outcomes, experts associated with brownfield redevelopment must arrive at a common working definition of sustainability and sustainable development, a difficult task given the variety of professional identities that come together on these projects and the ongoing fundamental debate over the definition of sustainability.
The challenge of sustainably redeveloping contaminated, abandoned or underutilized property can certainly be viewed as one of the more vexing problems of the twenty-first century, requiring the essential talents and skills of a cross-section of professionals, such as financial analysts, lawyers, architects and engineers to solve. In this context engineers are called upon to remediate environmental contamination, financial analysts quantify the sites’ economic risk and potential for future profit, lawyers and government agents develop voluntary clean-up contracts and partnership agreements, and architects and land planners design development plans which address social concerns, such as gentrification and displacement.

The real estate development process is inherently collaborative; however, brownfield redevelopment, especially when focused on sustainability, requires more attention to long-term financial, environmental and social viability, and must be conjointly and holistically confronted. New ways of interacting and new professional associations are necessarily required. Under this rubric, an engineer designing remediation technologies not only accounts for the clean-up, but also works with planners and government officials to address long-term economic and environmental impacts and community social concerns, such as gentrification and green space preservation. Similarly, land planners and architects work alongside engineers and financial analysts to revitalize brownfield properties by designing sustainable developments which weigh impacts on disadvantaged communities and integrate remediation with ecosystem preservation, public transportation and neighborhood economic opportunity.

To enable such cross-disciplinary work in the name of sustainability, membership organizations, professional language and training programs must be realigned and perhaps even redesigned to refocus professional norms and identities on the tenets of sustainability. Brownfield professional practice is necessarily relocated at the intersection of environmental, social and economic goals.

Policy-makers seeking to foster sustainable development in the 1990s described the need for the engagement of multiple professionals. They noted that its success would require ‘long-term disciplinary, multi- and interdisciplinary study’ (World Bank, 1995). Current research on the professionalization of sustainability describes that the ‘process of institutionalization [of sustainable development] is quite advanced and multidimensional, ranging from the establishment of professional journals to bureaucracies, training programs, and international treaties’ (Aguirre, 2002). As early as 1996, the civil engineering profession was seeking to re-educate its members to ‘develop sustainable planning processes. This includes public participation, multidisciplinary teams, baseline sustainable development studies, strategic planning, life-cycle consequences, monitoring and evaluation’
Researchers studying professionalization processes in the context of global problems have suggested that ‘the modern state needs professions both to promote occupational integration and social cohesion’ (Evetts, 1998). These are arguably both requirements of the tripartite focus on economic, social and environmental aspects required of sustainable brownfields redevelopment projects.

**METHODOLOGY**

**Case-Study Selection**

This study employs a single case-study methodology, which offers an opportunity for an in-depth examination of a previously unexamined phenomenon, the professionalization of sustainability in a multidisciplinary setting. This rationale for study design is that of the revelatory case (Yin, 2003), wherein ‘an investigator has an opportunity to observe and analyze a phenomenon previously inaccessible to scientific investigation’. Cherokee Investment Partners, an international brownfield redevelopment firm with headquarters in Raleigh, North Carolina and offices in Denver, Toronto, New Jersey and London, was chosen as the single case to examine.

Cherokee is the largest firm in the world specializing in the acquisition, remediation and sustainable redevelopment of brownfields, having acquired over 500 properties since 1990. The firm currently retains over $1 billion of brownfield properties throughout North America and Western Europe. To encourage transactions, Cherokee acquires assets for cash and indemnifies sellers from environmental liability through the use of insurance policies and other risk transfer methods. After acquisition, properties are remediated and repositioned for reuse.

Cherokee is an appropriate setting in which to study the professionalism of sustainability for three reasons. First, it is an international firm, with sites in the United States, Canada and Europe, so inferences about the development of sustainability-focused professional identities will have broad applicability. Second, the firm routinely assembles multidisciplinary teams of environmental and real estate professionals to work on its projects. Finally, in recent years Cherokee has increasingly concentrated its business on sustainable development, drawing upon the expertise of notable sustainability thought leaders to assist in framing its organizational mission and policies. For example, Cherokee has partnered with William McDonough, author of the Hanover Principles (McDonough and Braungart, 1992), to guide planners to sustainable development outcomes. He has been assisting the firm in developing its sustainability vision and
outlining systems and procedures to ensure that principles such as recognition of interdependence, respect for consequences of design decisions and continuous improvement through knowledge-sharing are incorporated into projects. The firm has articulated a mission and vision focused on sustainability, which firm leaders believe translates into a brand image that has enabled them to obtain prime mover benefits.

Data Collection

Case-study data were collected from four sources. Primary firm documents, such as an annual sustainability report published by Cherokee, protocols and marketing materials, as well as secondary information such as media reports were analyzed. In addition, a short questionnaire was administered to Cherokee employees and their wider network of professional associates (including service providers) with various roles in redevelopment projects across the United States, Canada and Europe. The questionnaire was first pilot tested. Ninety-two questionnaires were sent to associates via email. Forty-one associates completed the questionnaires, for a response rate of 45 percent. Finally, follow-up interviews were conducted with firm leaders.

Data Analysis

A grounded theory methodology (Strauss and Corbin, 1998) was used to examine emergent constructs and build theory inductively from review of qualitative case-study data. In contrast to other modes of theory development, in which concepts and relationships between them are set out a priori, and data are used to confirm or deny their plausibility, a grounded theory approach is guided first and foremost by data. Questionnaire, primary and secondary data were entered into a qualitative database, using NVivo software. Data were first examined using an open coding approach, in which data were associated with codes such as ‘professional norms and ethics’, ‘learning processes’ and ‘sustainability outcomes’. Analysis proceeded through the identification of relationships among constructs as data from subsequent documents and questionnaires were examined and no new concepts were apparent.

RESULTS

In this study, five important concepts were identified. First, the respondents indicated multiple professional identities. Second, they combined personal values with professional ethics to develop an integrated
identity with regard to sustainability. Third, their perspectives on sustainability were informed and influenced by their professional environment that included common training and opportunities for working together and sharing ideas. Fourth, as the nascent professional ethic of sustainability evolved at the firm, conflicts between professional norms occasionally occurred and management intervention was necessary. And fifth, resulting outcomes reflected a growing common professionalization of sustainability.

**Professional Identity**

When asked to identify their profession from a list of eight professions most commonly associated with brownfield work – engineer, scientist, geologist, architect/designer, land planner, attorney, real estate development manager, government environmental or planning official – about a third of the respondents indicated multiple professional profiles or identities. For example, an engineer might also identify himself as a scientist, real estate manager or government official or, alternatively, a land planner might identify himself as a real estate development manager.

The professional profiles indicated by the 41 respondents are summarized in Table 11.1. They appear to be influenced by both their work experience and their education. A majority of the respondents held a baccalaureate degree in combination with one or more professional graduate degrees in technical disciplines, law or business.

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<th>Profile</th>
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<tr>
<td>Environmental engineer</td>
<td>5</td>
<td>Architect/designer</td>
<td>–</td>
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<tr>
<td>Environmental scientist</td>
<td>6</td>
<td>Land Planner/architect/designer</td>
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<tr>
<td>Environmental engineer/scientist</td>
<td>3</td>
<td>Attorney</td>
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<td>Real estate manager</td>
<td>8</td>
<td>Government official</td>
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<tr>
<td>Real estate manager/engineer/scientist</td>
<td>2</td>
<td>Government official/engineer</td>
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<td>Real estate manager/land planner</td>
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<td>Financial manager/other</td>
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<td>Real estate manager/land planner/architect/designer</td>
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<td>Total respondents</td>
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Thus, this case-study evidence suggests that in the brownfield setting professionals may not be limited to standard professional identification patterns. This result is amplified when respondents described the professionals they most often worked with on brownfield redevelopment projects. Every respondent indicated that he or she worked closely with members of other professions and close to half (45 percent) indicated that they routinely worked with all eight types of brownfield professionals identified in the questionnaire.

Of the 41 respondents, 24 focused their work solely on Cherokee’s US brownfield acquisitions and real estate assets, and 17 worked on brownfield projects throughout the organization, including sites located in Canada, the United Kingdom and in other European Union member countries.

**Professional Ethic of Sustainability**

One of the aims of this study was to examine how professional norms and ethics affect the development of a singular professional ethic of sustainability. How, for example, would the ethical cannon held by a professional engineer to ‘hold paramount the safety, health and welfare of the public’ (NSPE, 2003) influence the ethic applied in the context of sustainable redevelopment of brownfields.

The data from Cherokee employees and associates indicate that in this setting their professional norms and ethics, such as transparency, responsiveness, trust and honesty, become integrated with personal values about social justice and environmental stewardship. The result is the creation of a professional sustainability ethic centered on community. The idea of a community in harmony with its environment and the professional’s responsibility in both creating and maintaining its long-term viability is at the center of this nascent sustainability-based professional identity. Respondents described this sustainability ethic:

> Our work has its roots in Civil Engineering and thus shares its altruism. Much of our work, for example, is designed to ultimately benefit communities and the environment.

> We . . . produce results that we can be proud of when the communities are alive and thriving in the years to come.

An engineer and a real estate development manager provided these statements, respectively. Respondents expressing similar views indicated that Cherokee, with its articulated sustainability vision and where casual discussions about sustainability principles are encouraged, fosters the sustainability professionalization process.
It should be noted, however, that while some professionals are actively engaged in a process of combining personal values and professional ethics to develop a sustainability-focused professional ethic, others have been left behind. Some respondents indicated that maintaining their primary professional identities as lawyers, engineers and financial managers was paramount and more valuable to the brownfield redevelopment endeavor than a reconfigured ethic centered on a somewhat nebulous and evolving concept such as sustainability. Some worried about ‘greenwashing’ and whether their professional ‘norms and ethical requirements could be in direct conflict with the financial objectives’ of brownfield projects, such as short-term profitability.

**Working Together, Sharing Ideas and Common Training**

Research has shown that multiparty collaboration can lead to consensus, learning and problem-solving (Turcotte and Pasquero, 2001), even as difficult problems are confronted. Sustainable brownfield redevelopment is such a problem. The Cherokee case-study presents evidence that in working together, sharing ideas and engaging in common, formal training, individual personal values and primary professional norms and ethics can be combined to foster a sustainability-focused professional ethic.

Formal training was seen to play a small, albeit important role in the professionalization of sustainability in Cherokee’s cross-disciplinary brownfield redevelopment setting. At many of the firm’s locations groups participate in in-house seminars on sustainability issues provided by experts in the field. In addition, employees and associates are encouraged to attend training seminars. In particular, the firm’s association with the Urban Land Institute (ULI) has proven influential. ULI, a US-based non-profit membership-supported research and education association, is a leading proponent of new urbanism and sustainable planning. This organization plays a vital institutional role in the socialization of sustainability professionals at Cherokee. Firm employees and associates of many professional stripes have become members of the organization, attending seminars and forums on sustainable development and, more recently, participating in ULI leadership positions.

Working together and sharing ideas play a larger role than formal training in cultivating a professional thesis of sustainability at Cherokee. These activities provide opportunities for professionals to apply their primary professional norms and share personal values about sustainability in designing and implementing brownfield redevelopment solutions. Associates describe their experiences in the following fashion:
In working with other types of professionals, the scope of considering all matters, which might necessarily affect a development, increases the chances of sustainability. Each profession will have its opinion and advice on everything from ethical conduct, human rights, profitable growth and environmental issues. It is only by sharing the thought processes with others that hopefully the optimum outcome can be developed.

In liaising with other professionals sharing views and information generally results in the optimization of the overall environmental sustainability of a proposal.

The diverse professional experience, backgrounds and perspectives within our organization increase the opportunity for sustainable concepts to be shared and implemented.

While attendance at in-house seminars and brownfield-oriented conferences sponsored by normative institutions such as ULI, bar associations or engineering professional societies were important in fostering associates’ professional ethics of sustainability, it was the firm’s routine multidisciplinary team-oriented work that was most cited as influential in this regard. Brainstorming sessions, or ‘happenstance’ conversations between team members ‘in the context of specific projects’ were said to be invaluable tools for melding personal values with professional norms to professionalize sustainability thinking. The projects themselves provided critical settings for the dilemma of concurrently addressing multiple goals of economic efficiency, environmental restoration and community redevelopment to be confronted:

... ongoing project management meetings provide the opportunity for interactions between the various professional disciplines involved to help adapt and implement sustainable development principles into the project.

Often these confrontations were catalyzed by meetings with associates more peripheral to the firm, for example Cherokee’s outside environmental service providers, regulators or local redevelopment agencies. One respondent described the situations in which professional norms of sustainability were brought to bear:

We share our ideas about sustainability with the client and authorities and try to convince them that sustainable solutions might be of advantage.

The practice of engaging external stakeholders has been shown to advance the practice of sustainability (Gallagher, 2005). The professional practice of sustainability at Cherokee attempts to incorporate such an approach, driven by planning professional norms. A general practice of
planning is to engage in community-wide charrettes. These multi-day planning meetings bring designers, planners and community stakeholders together to arrive at a common vision of development outcomes. At most Cherokee sites charrettes are an integral component of the brownfield redevelopment process. The charrette experience serves as a mechanism not only to incorporate stakeholder concerns, but also to introduce and highlight a key planning professional norm to other professionals. Engineers, for example, accustomed to singularly relying on their own expertise, are asked in charrettes to seek the advice and counsel not only of others within the firm, but also of external stakeholders. In follow-up interviews Cherokee leaders expressed the view that while exposure to external stakeholder perspectives on sustainability engenders frustration on the part of some professionals, overall it enhances the development of a sustainability-focused professional ethic within the firm.

**Resolving Conflicts**

Gray (2004) describes a process by which parties with different frames of reference may be able to recognize those differences and go on to address intractable problems. The process involves recognizing the existence of disparate frames and then arriving at a consensus. Within the consensus power is conferred to a largely democratic group decision which may or may not reinforce each individual’s original position (Gray, 1989). In the sustainable brownfields redevelopment setting the consensus-building process invoked during the development of sustainability-focused professional norms is a work in progress.

For example, some associates at Cherokee see a disparity between professional groups in terms of willingness to advance sustainability concepts. One associate explained: ‘while many engineers and planners and clients have embraced sustainability and are making genuine efforts to incorporate the principles in their thinking and planning, others see sustainability as a necessary evil’. Another asserted that ‘architects and planners would have the most focus on sustainability; with bankers and lawyers this is not so often a topic (but might be)’. When these disparities are unable to be reconciled, unsustainable outcomes result. A case in point is an early Cherokee site in California. The professional perspectives of financial analysts promoting economic sustainability outweighed the input of other professionals emphasizing environmental and social concerns, and a sprawling retail development anchored by a general merchandiser superstore was the outcome.

Follow-up interviews with company leaders suggested that a number of mechanisms for resolving such conflicts have been instituted. First and
foremost, the company’s CEO has consistently made it clear that redevelopment outcomes are to focus jointly on economic, social and environmental sustainability. Additionally, the firm has taken steps to enforce sustainable practices through management of its supply chain. An ISO 14001 certified environmental management system emphasizes sustainability throughout Cherokee operations. Contract associates are required to adopt sustainable practices. Each of these practices underscores the importance of developing a shared professional norm based on sustainability.

**Sustainable Outcomes**

How, then, has the development of a professional ethic of sustainability affected specific brownfield outcomes? Respondents provided examples of how professionals incorporated sustainability principles into brownfield redevelopment projects across the US, Canada and Europe. These descriptions are verified by press reports and firm documents. For example, green space is preserved and public education and outreach tools are used. Smart growth principles are applied and public transit-oriented development designs implemented. Finally, technologies such as energy-saving construction and building materials and reuse of natural resources are implemented. One project in particular, a large brownfield redevelopment project in Charleston, South Carolina, is notable for both its cross-disciplinary project team and the sustainability outcomes that result. A participant in the project describes it as:

... integrated into the transportation and neighborhood fabric of the city; [it incorporates] density levels that support sound use of infrastructure (physical and social); [includes] marsh restoration; community support [and] revitalization.

While some employees and staff labor on the periphery of sustainability, describing a desire for ‘the experts to explain to me the sustainability issues and alternatives on a project’, most find the cross-disciplinary interaction beneficial to the design and implementation of sustainable brownfield redevelopment outcomes. These outcomes result when opportunities for formal and ad hoc discussions are provided, thus fostering a professionalization of sustainability, which for some has become ‘second nature’.

**IMPLICATIONS FOR BUSINESS AND POLICY**

In this study, by examining a single setting in which a variety of professionals work together to address a vexing social problem, we have made the
case that the professionalization of sustainability can, and moreover should, be advanced. We have shown that older conceptions of professionalization based on processes requiring standardized training and career paths, and resulting in non-network organizational forms, do not necessarily apply in the new context of sustainability. In this study we showed how individuals from multiple professions, embodying a range of norms and ethics, came together in the brownfield setting to solve a challenging social problem: the concurrent restoration of contaminated land and damaged ecosystems, and creation of long-term economic and social opportunity for host communities and investors. This challenge is by its nature an exercise in sustainability: old properties are cleaned and reused, communities are revitalized and green space is preserved, providing long-term economic, social and environmental benefits. Thus it is not surprising that the diverse professionals called upon to address the brownfield challenge find themselves integrating personal values and professional ethics into a new professional identity, that of the sustainability professional.

What can be learned from this particular setting that may be used by other businesses aspiring to focus on sustainability outcomes? First, it is important for an organization to articulate a sustainability vision. That vision should inform an operating framework, which describes how the organization will address the social and environmental impacts of its products and services. Employees and associates rely on such a framework to set goals and objectives and to resolve the inevitable conflicts that arise.

Second, it is critical to provide opportunities for both primary professional development and cross-disciplinary interaction. Professionals should be encouraged to explore sustainability from their disciplinary bases. In addition, diverse employees should be provided with opportunities to learn about and discuss sustainability principles both informally and formally with the imprimatur of institutions which exist to advance sustainability. These opportunities will lead to stronger network formations and advance the development of a firm’s eco-enterprise strategy. Moreover, firms should confront the possibility of producing sustainable outcomes with external stakeholders such as neighbors, customers, suppliers and regulators. These interactions enhance sustainability thinking and often lead to improved outcomes.

Finally, and perhaps most importantly, employees should be encouraged to explore and nurture their own personal values related to sustainability and to apply them in their professional practice. In the past professionalization was considered to be supported by attitudinal attributes such as a belief in public service and in self-regulation, and a sense of calling to a particular field (Hall, 1968). This study confronts that view by examining a new work environment. It uses the setting of sustainability-based work, to show
how professionals come together not because of the call of a single field, but out of a larger sense of calling to address a set of daunting environmental and social problems. Finally, this study demonstrates that when sustainability thinking in a professional setting becomes ‘second nature’, based on shared values and ethics, the professionalization of sustainability is assured.

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