Plural Profession, Discrepant Practices

David Salomon

Architects need to play a direct role in the policy-making in a community; once a decision has been made and handed to the architect, it's too late. After all, the role of any artist is to help people see things as they truly are.

Samuel Mockbee (quoted in Seymour 2000, 27)

THE HOW AND THE FOR WHOM

In the past, the 'how' and the 'for whom' of architecture have been intimately related. Empirical studies of architectural firms show that the way architects are trained and work – the methodologies and tools they use, how they organize labour and pay structure, the size and location of an office, etc. – directly affects what they work on and who they work for (Blau 1984; Cuff 1991; Tombesi 2003). Three of the most important developments affecting this relationship today are: 1) the emphasis on inter- and intra-disciplinary collaborations – collaborations that emphasize architecture as a social process between different members within the design profession and/or the relationship between design professionals and non-professionals;[1] 2) the use of digital tools for designing, fabricating and communicating design ideas; ones in which the creation and use of information networks are central;[2] and 3) the proliferation of community-based design-build practices where design and aesthetics are seen as a means to address social and political issues, rather than ends in themselves.[3]

Why might architects be interested in doing more collaborative, digital, and design-build work? One answer is that, in contrast to typical professional practice, where a firm responds to requests for their services, each of these models provides architects with the opportunity to get involved at the beginning of the architectural process by making it easier to initiate work themselves – either by designing and building for others, or by generating more speculative work themselves. Such methods are equally relevant for not-for-profit and for-profit projects. The former category is increasingly made possible through the support of larger institutional frameworks – such as schools of architecture – which supply both the human and financial resources necessary to sustain them (ACSA 2000; Gaber and Bennett 2006).[4] Alternatively, advances in design software have made it possible for smaller firms to handle larger and more complex jobs without any sacrifice in quality or time.

New technologies have also enabled firms to be co-owners or developers of projects.

The New York firm SHoP has combined the use of modelling software with for-profit development, acting as both owner and designer on a number of speculative real estate projects.[5] Their progressive solutions were made possible, and profitable, by using computer-aided design and computer-aided manufacturing software that simultaneously produces complex forms, predicts construction costs, and facilitates execution. As developer and architect of The Porter House SHoP added a zinc-clad cube to an existing Renaissance Revival warehouse, transforming the structure into a residential complex (Reeser 2004). By utilizing the representational and managerial capacities of the software 'Solidworks' the firm was able to customize the façade while simultaneously minimizing fabrication and erection time (Figures 24.1 and 24.2). Here, new forms, new practices, and new collaborations between architects, developers, and contractors are rolled into one.

Historically, architects were (and in many places still are) prohibited from taking on this developer role; primarily because their financial connection to a project was understood as being in conflict with their responsibility to protect the public's health, safety, and welfare. Yet, this paradox exists whenever architects offer their service for hire to a client. In both cases, the commitment to the client or project, and the commitment to the public, must be balanced. While this arrangement – and the related technologies – may allow the architect more control (to sacrifice profit for quality, or to accept a lower rate of return in exchange for lower rents), it does not inevitably produce more public or more beautiful objects. In both cases, the flexibility and economy allowed by these means have to be actively tied to a progressive social and aesthetic agenda.

Other firms do not-for-profit projects, updating the community design paradigm begun in the 1960s, working directly for and with communities that are typically underserved by architecture. However, they rarely use the kind of advanced design and fabrication methods used by firms like SHoP.[6]

Here the split between design, technology, and service is evident since many of these practices encourage the use of conventional or local materials and building methods – a choice that is understood as a result of pragmatic (i.e., there is no money for such things) and ethical (it would be another case of technological imperialism to use them) considerations. When embedded in schools of architecture, the projects not only embody a different form of practice, but a different pedagogical model from the standard focus on professional and artistic competence. Programmes such as the Rural Studio (Dean 2005) and the BASIC Initiative run out of the University of Washington (Palleroni 2004) emphasize the production of architectural artefacts, but they also focus on building lasting social and cultural awareness in their students. In other words, they emphasize the building up of citizens as much as
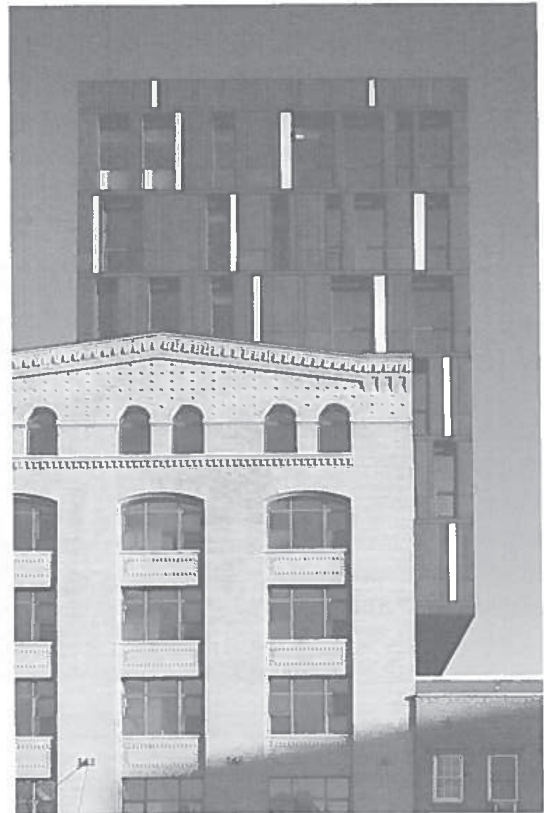

Figure 24.1 (Above) SHoP, The Porter House, New York, 2003. The 20,000 sq ft addition hovers over the adjacent building.

the design of buildings (Boyer and Mitgang, 1996).[7]

In each of these three models—collaborative, digital, and design-build—architects are attempting to exert more and earlier influence over the building/space-making process. While the technological, aesthetic, and social emphasis of these trends do overlap one another, the necessary skills and the underlying agendas are rarely combined in a single practice. What they share, however, is the desire to transform architecture's conventional role from an expert for hire (Gutman 1988) to a more proactive approach. This transformation requires the development of new modes of practice that incorporate new techniques and new constituencies to expand the definitions of the professional architect.

IMPURE PROFESSION

For over a century the dominant model for linking architecture's internal processes with its external commitments has been professionalism (Woods 1999; Cuff 1991). Although contested, definitions of a profession include: the ability and autonomy of a group to claim and defend the exclusive possession of a body of expert knowledge; the acquisition of that knowledge via lengthy and highly prescribed training, testing, and licensure; the development of technical skills necessary to put this knowledge to use for the benefit of both clients and the public at large (Larson 1977; Cullen 1983; Cuff 1991; AIA Code of Ethics 2007). This last requirement – responsibility to the public – is not only self-imposed but mandated by the state, which requires that all professions act to protect and advance the 'health, safety and

Figure 24.2 (Below)   SHoP, The Porter House, New York, 2003. Construction drawing showing the final location of the numbered panels. The pre-fabricated panels are individually cut, bent and numbered off site and are erected in order as they arrive on site.
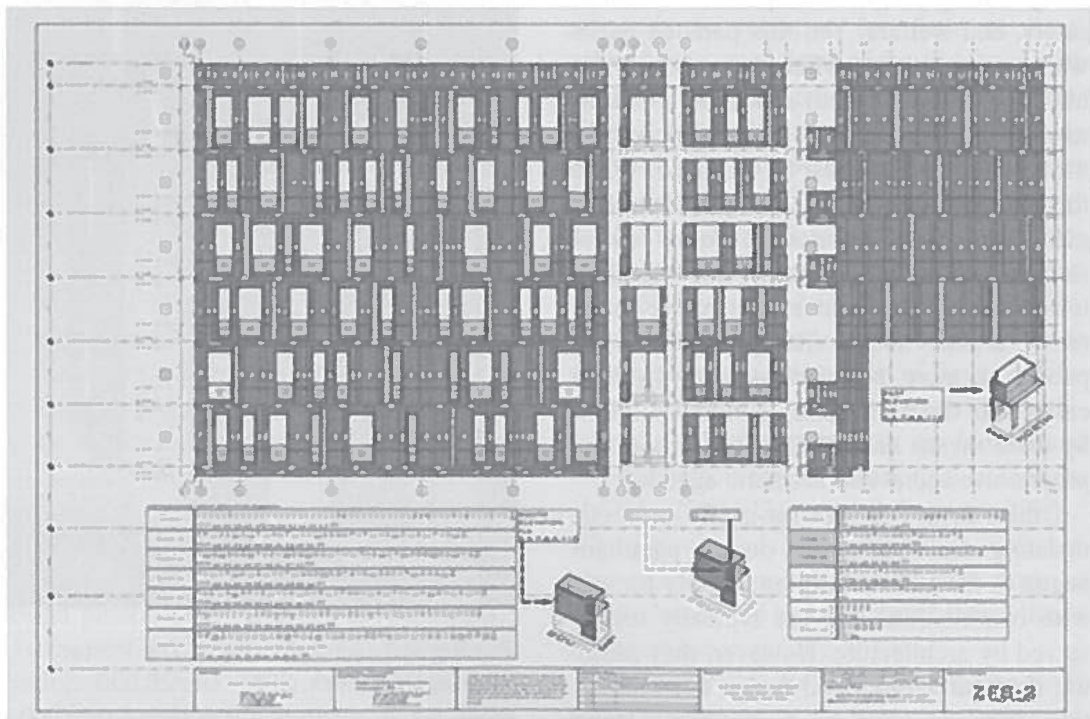
welfare' of the community it serves. In other words, professionals are required to put the public interest over their own personal gain and the individual gains of those who hire them.[8]

Architectural educator Thomas Fisher recognizes that while these requirements are applicable to all professionals, architecture's commitment to the 'public good' extends beyond purely technical issues (more successfully achieved by engineers and planners), and reaches into the aesthetic and symbolic realms (Fisher 1993). The sociologist Magali Larson reinforces this conclusion, arguing that architectural expertise and jurisdiction extend to matters of artistic skill and judgement (i.e. taste). Larson argues that this, and the relationship architecture has with patrons (who are more likely to be interested in the aesthetic and symbolic aspects of architecture, as opposed to clients who are more interested in purchasing a service), not only complicates their ability to act in the public's interest, but divides the field into two. The vast majority of firms are client-oriented, and produce 'buildings', while a much smaller – but more prestigious and influential group – creates 'architecture' (Larson 1993; Gutman 1988).

The limits of professionalism – both in general and specifically for architecture – are well documented by sociologists (Larson 1977; Gans 1983), cultural theorists (Robbins 1993), and architectural critics (Stevens 1998; Crawford 1991). Common complaints directed at professionalism include the unnecessarily esoteric jargon and practices that alienate the public they are chartered to serve, and the self-policing and self-rewarding that lead to an overemphasis on internal innovations rather than ones relevant outside its own borders. In short, an emphasis on technical expertise, political neutrality, and self-discipline have produced out-of-touch practitioners, primarily interested in developments within their own fields. In architecture, this is associated with an interest in formal or aesthetic questions at the expense of social conditions (Ward 1996). Professionalism is thus framed by oppositions such as experts vs. layman, insular vs. activist, and engaged intellectual vs. disinterested technician. These bound dualities are well established and have appeared and reappeared often in architectural discourse, namely: the worldly generalist vs. the narrow specialist, the artistic synthesizer vs. the technical expert, the ethical professional vs. the opportunistic practitioner (Saint 1983; Kostof 2000 [1977]).

Bruce Robbins argues that these binaries are at best stereotypes, and at worst, false choices. Contrary to complaints that professions distance members from 'real world' problems, he argues that professions have always been established and legitimated by broader cultural institutions. Moreover, their continued relevance is dependent upon the effectiveness of the technical skills and competencies they develop in order to achieve larger social goals. In other words, professions have always been open in their constitution, if not in their execution. The importance of this for Robbins is that professionalism and the expertise it generates should not be abandoned for some allegedly purer system. Rather, both sides of the binaries that define professionalism must be aggregated rather than set against one another. One does not have to choose between engagement *or* expertise; between social *or* technical progress; rather, one must be able to use one to achieve the other. Replacing an either/or logic with the logic of both/and results in 'discrepant cosmopolitanism', a multitude of different but interrelated practices that are flexible enough to accommodate the contradictory goals embedded in professionalism, but stable enough to incorporate feedback from sources both inside and outside its borders (Robbins 1993).

DISCREPANT PRACTICES

Related to Robbins' notion of discrepant cosmopolitanism, cultural theorist Kwame Appiah proposes a 'contaminated cosmopolitan'

who simultaneously inhabits two or more identities – one of which is typically parochial and personal, the other of which is foreign and/or universal (Appiah 2007); a position which mirrors architecture's traditional understanding of itself as existing at the crossroads of multiple disciplines. Appiah's ideas translate into a set of architectural operations and protocols that can be deployed using architecture's own expertise.

Toward this end, architect and theorist Stan Allen argues that it is more productive for architecture to understand itself as a material practice, rather than a representational or ideological one (Allen 1999). This is not to say that the latter two are unimportant, only that the aesthetic, political, or social projects architecture wishes to take on must grow out of *how* it manipulates both physical and economic materials. Rather than importing theories from other discourses, architecture is more supple, elastic and open when it generates theory from an examination of its own modes of production. In other words, one's theory should follow from how one works, what one works with, and with whom.

Such theory – and the practices from which it grows – also recognizes that one must adapt to the real constraints imposed by material conditions. Allen cites how Le Corbusier and Frank Lloyd Wright adjusted their designs to conform to the physical properties and labour realities of building with reinforced concrete, noting that making such compromises is not a sign of failure, but instead illustrates a kind of design intelligence that recognizes the messiness of architecture's simultaneous negotiation with physical and economic constraints.

While Allen's examples are geared toward the generation of form, his theory recognizes that the practices or operations of architectural design must negotiate competing demands, including issues of use, cost, context, typology, environmental impact, and history. Today, architecture integrates more discrepant elements (both physical and social) into its processes, finds the right techniques for doing so, and develops the

forms to express this expanded reservoir of requirements.

In particular, Allen's emphasis on negotiation – but not resolution – is central to the emphasis of the social, networked, and design-oriented practices outlined below. What differentiates these from previous attempts to expand architecture's disciplinary borders is the desire to simultaneously incorporate a variety of different discourses, methods, and cultures into its operating procedures. Instead of searching for one source to tie or ground its production to (e.g., engineering, scientific management, structuralism, semiotics, philosophy, etc.), today architects are learning from numerous areas to expand the discipline and make it more relevant socially (via collaboration), technologically (via digital techniques), and aesthetically (via community-based design-build projects). The dialogue and feedback between these categories produce an impure but robust profession, one which is discrepant yet connected.

PARTICIPATORY PRACTICES

Almost by definition, any architectural act requires the cooperation of a diverse set of people and institutions. What differs from one to the next is the kinds of people and organizations that are involved, and who among them has agency. Conventional professional practice in the United States understands the primary players as the client, the architect, and contractor. It often includes the collaboration between the architect and other design professionals such as engineers and landscape architects.[9] Projects are regulated by governments, which gives the public a degree of control and makes it a part of the process. As environmental issues garner more attention from politicians and citizens, implicit approval is giving way to explicit demands. In other words, public participation is on the rise (Cuff 1996; 1998). Still, many voices are excluded, and decisions are made by the credentialed and the powerful.

To combat this estrangement, the past forty years have seen multiple attempts by architects to work not only with other professionals, but with and for the architecturally disenfranchized (Aeschbacher and Rios 2008). Some of these practices are called 'social', others 'collaborative', and others 'community-based', emphasizing different goals, methods, and degrees of participation.

Social practices

Social architecture is the practice of architecture as an instrument for progressive social change. It foregrounds the moral imperative to increase human dignity and reduce human suffering (Ward 1996). In his provocatively titled essay 'The Suppression of the Social in Design: Architecture as War', Anthony Ward lays out the trajectory of alternative models for architectural practice from the nineteenth century through to the early 1990s, noting the various degrees to which they adhere to his definition of social architecture. For Ward, to achieve a 'truly' social architecture, practitioners must become members of the communities they work for. When architects actively promote the participation of multiple voices in the design process, they simultaneously act as fellow citizens and as engaged professionals. Ward follows C. Richard Hatch, who also emphasizes the social obligations and potential of the architectural process, writing that architecture is 'primarily a social event, as a medium for the creation of a community' (Hatch 1984).

In the 1960s, John Habraken, Kevin Lynch, Christopher Alexander, Lucien Kroll, and Henry Sanoff were among those who realized that architecture was unresponsive to the needs and desires of building occupants (Montgomery 1989; Richardson and Connelly 2005). From the burgeoning field of person-environment studies, there arose an interest in generating data (both statistically and ethnographically) regarding how buildings were used and how they performed, and then feeding back that information into the design process (Montgomery 1989; Schuman 2006). The production of this knowledge allowed architects, in Montgomery's terms, to proactively generate 'new people' that needed their services, and new means for addressing their needs.

In contrast to, and in many cases in reaction to these highly rational and quickly institutionalized social scientific methods (Till 2005; Richardson and Connelly 2005), by the end of the decade advocacy or community-based design positioned itself as 'an alternative style of practice based on the idea that professional technical knowledge without moral and political content is often inadequate' (Toker 2007, 309; see also Ward 1996; Comerio 1984; Till 2005). Community design centres emerged in disadvantaged neighbourhoods to provide legal, design, planning, and even construction assistance (Curry 2000). While these organizations survived through the 1970s, their sharp decline in the 1980s has been attributed to the neo-liberal politics ushered in during the Reagan–Thatcher era which ultimately challenged their legitimacy and slashed their funding (Comerio 1984; Schuman 2006; Toker and Toker 2006).

Without substantial state or institutional support for these efforts, social design has had to find alternative means, and different theories, to stay true to its mandate of serving the general public.[10] One theory that attempts to transcend specific conflicts without negating differences is John Forrester's call to reframe design from a 'problem solving' to a 'sense-making' activity (Forrester 1985). Forrester's logic is picked up by architect Jeremy Till, who argues for the professional discourse of 'logic and completeness' to be replaced with the techniques of 'conversation' and 'story telling'. He argues, that these everyday techniques, structured by participation and feedback among all agents affected by new construction, can provide 'space in which hope is negotiated ... hope [for] a better future for architectural practice' (Till 2005, 41).

While Forrester's and Till's positions re-emphasize the need for collaboration between design professionals and laymen, they do not advocate specific design techniques or forms. In contrast, the planner Randolph Hester outlines more specific design strategies, ones which attempt to integrate the discipline of ecology with the practice of participatory democracy (Hester 2006). Here, democratic participation and ecological stewardship is the greater cause for architects to aspire to. Architects' design skills feed back information from a variety of participants in order to produce truly communal spaces. Hester's formal-spatial techniques recall the vernacular ones found in Christopher Alexander's 'Pattern Language' (Alexander et al. 1977). For Alexander, 'centredness', 'connectedness', and 'density and smallness' are directed toward producing environments that increase the chances of interacting with one's neighbours. Since these environments are spatially and iconographically traditional, if not conservative, they raise questions about their ability to include non-traditional functions and social groups within them. While clearly open to new inputs into the design process, this approach is not tolerant of new forms and sensibilities.

Information practices

The difficulty of simultaneously maintaining a commitment to progressive design, methodologies and clients is evident even in practices that actively use digital devices to do so. For example, many computational tools – such as Building Information Management (BIM) software – are ways for architects to control more of the building process with even less input from other professionals or laymen (Kieran and Timberlake 2004; Willis and Woodward 2006; see also Chapter 23). Even when arguing for more social interaction between architecture and other areas, their processes do not typically include the end users, or any other actors with non-expert information.

Further, digitally-directed practices do not typically foreground a commitment to advancing the public interest. The lack of a clear social agenda is a direct recognition of the failure of modernism's efficient mechanical technologies – and their underlying logic of efficiency through isolation – to make the world a better place.[11] As the sociologist Ulrich Beck has noted, if one of the hallmarks of the so-called first modernity was the rationalization of industrial and everyday activities, the second, or reflexive modernity, is characterized by the proliferation of unexpected and unwanted by-products generated by these optimizing techniques such as economic colonization and global warming. Such side effects, he argues, cannot be solved using the same method that produced them; the problems created by 'functional differentiation can no longer be corrected by further functional differentiation' (Beck 1999, 2). Rather, the simultaneous generation of 'goods' and 'bads' must be examined as complex, dynamic systems in which the relationship between parts is more important than establishing the 'essence' of the parts themselves.

The ability to understand and use such systems – e.g., global markets, ecosystems, buildings, etc. – requires complex mathematical models, increased computational capacities, and sophisticated software. In other words, it needs to break down all information about these systems to the most basic of differentiations: that between on and off, yes or no, 0s and 1s. There is a belief that, 'whereas previous technologies tended to separate trades … software protocols have provided a general language that fosters increased intertwining' (Hight and Perry 2006b, 49).

Networked practices

Architecture has been theorized as a field which harbours both the arts and the sciences. More recently, however, Tierney and Burke have argued that, far from being a locus of the arts, architectural intelligence

increasingly exists within a distributed network; a network that is enabled by a 'rich ecology of technology that threatens to overwhelm at the same time it exhilarates and empowers'. Citing Castells' insight that the 'network society is a social structure', they ask, 'What is the position and responsibility of the designer-as-agent within this socially based information system?' (Tierney and Burke 2007, 26; see also Chapter 22).

One possible answer is provided by Hight and Perry in their essay 'The Manifold Potential of Bionetworks' (2006b), in which they argue against the 'standardized organism' of professional practice – 'controlled' by various institutions such as the AIA, RIBA, and National Council of Architectural Registration Boards (NCARB), and for a more diffuse network of practitioners that exchange and feed back information to one another in a less propriety way. Building on the insights of Pierre Levy, Michel Foucault, and Gilles Deleuze, they recognize that this kind of 'molecular' or 'bio' network reflects the current state of the world, in which power is so diffuse that it operates undetected at the micro-scale of the body. This world is characterized, not by 'the centrality [in importance] of knowledge and information, but [by] the application of such knowledge and information to knowledge generation and information processing/communication devices, in a cumulative feedback loop between innovation and the uses of innovation' (Manuel Castells, cited in Hight and Perry 2006b, 50).

Unlike a previous generation of architects interested in cybernetics and feedback loops (Wigley 2001b), the geographically dispersed practices such as Ocean, Open Source Architects (OSA), and kokkugia are less concerned with the broad ecological implications of these systems than in the structural, spatial, and formal possibilities suggested by the natural, epigenetic processes they emulate (Hensel et al. 2004; 2006) The resultant forms – which could not be generated without incredible amounts of computational power – are ones in which a tremendous amount of variation is produced from minimal differences; a model which is analogous to how some social, as well as biological, systems develop (DeLanda 1997).

The work of the firm Servo exemplifies how recursive processes that loop between architectural objects, information systems, and human beings have the potential to generate social effect (Erdman et al. 2006). In a series of seductive installations and proposals, the firm has produced objects and environments in which neither the designer, nor the computer are 'in control' of what one encounters at any moment. The ever-changing aesthetic condition of light, colour, sound, images, and forms, is generated by the conversation that occurs between corporeal and electronic stimuli, sensors and receptors. While the effects within the installation are primarily psychological and physiological, by plugging these environments into larger information networks, they automatically become a part of, and responsive to input from larger corporeal, digital, and social networks.[12] While their contemporary forms and their deployment in museums, galleries, and hotels suggest a limited audience, to dismiss this work would be premature. Such experimental sites are crucial for learning about the implications of feedback-dependent objects in other types of politically charged contexts. While the broader social implications of work like Servo's is not quite clear, the combination of sophisticated forms with sophisticated technologies and passive and active input from users, marks this work as distinct from other networked practices.

Open practices

Both Hight and Perry (2006a; 2006b), and Tierney and Burke (2007) are optimistic about the potential for digitally powered bionetworks to distribute architectural power and control a multitude of agents. The theoretical frameworks which network-inspired practices are based upon – which in addition to Castells' Information Society, include

Hardt and Negri's multitude, Bruno Latour's Actor Network Theory, and Deleuze and Guattari's bodies without organs – are defined by opening up social and political processes to contributions from all sources (see also Gropius 1955). These positions, along with the technologies used to manifest them, have the potential to incorporate local knowledge sets and non-digital information into their feedback loop of innovation.

Just such a loop is described by Cameron Sinclair in his introduction to the book *Design Like You Give a Damn*, a catalogue of proposals and projects done for humanitarian causes (Architecture for Humanity 2006). In tracing the history of his organization he describes the cycle of horror, euphoria, and disappointment in which natural and man-made catastrophes were followed by inspired responses from designers, only to have nothing come of their efforts. Sinclair's disappointment was tempered by the growing realization that his own organization was becoming a database for ideas and solutions that could be studied, improved, and disseminated (if not put in place) before the next crises occurred. Thus, despite being responsible for only a handful of projects, Architecture for Humanity ended up designing a distribution hub for the ever-expanding network of people, institutions, and design ideas relevant for solving future crises. Within this network are experts in the design of objects, logistics, languages, and cultures. While, on the one hand, this archival information could move towards the development of the more abstract or 'universal' solutions associated with modernism (and capitalism), it is precisely Architecture for Humanity's wide and varied distribution of sources – made possible by communication technologies – that offer the potential to augment common knowledge with localized and embodied knowledge. This in turn will produce objects that are both functionally and aesthetically relevant to those who use them. The way things work (well or poorly) and the way they look (foreign or familiar) are crucial to the physical and psychological well-being of the victims

of disasters. In other words, technically and economically efficient solutions are not all that is required, but spatial and formal ones – informed by local conditions – are equally important.

DESIGN PRACTICES

Like informational practices, design-oriented practices stress the need to develop new methods for creating architectural projects. And, like social practices, they encourage working closely with specific groups or locales. The key difference between the social practices discussed above (many of which were engaged in design-build programmes) and design practices is the latter's emphasis on the role of aesthetics. In such practices there is an emphasis on design itself – as both a noun and a verb. The focus on aesthetic issues aligns with networked-based practices which also seek to develop relationships between new processes, new organizational structures, and new forms. Design practices' emphasis on using local and/or vernacular methods and materials – as opposed to digital and biological ones – guarantees that different results will be achieved. Finally, in comparison to the ideologically elusive position of informational practitioners, design practices are relatively straightforward in their ambition to have a direct effect on people's lives – both architects and those they work for (Bell 2004).

The simultaneous commitment of design practices to process *and* product, altruism *and* aesthetics, exposes the false dichotomy that typically separates the one from the other. Architectural practices that engage both concepts simultaneously recognize that the ground they occupy includes a responsibility to others that can be fulfilled via the manipulation of form, space, images, sensibilities, moods, and tastes. While often dismissed as superficial if not dangerous, aesthetics are understood as a historically necessary and

highly effective means to help solve more important issues via the politicization of art, not the aestheticization of politics (Benjamin 1969 [1936]).[13]

Building aesthetics

The political and social importance of design is recognized by Cuff in her analysis of contentious developments. In these contexts, she argues that it is not the architect but 'the design which moves to the center of debate. Its object-ness externalizes the subjective experience of contending parties, as it absorbs disagreement or embodies commonality'. In order for a design, however, to expand the conversation beyond parochial issues, it must have in it qualities that allow one to recognize it as such. As she notes, 'the architect, as the mid-wife to the design-object, is the key to' producing these representational qualities (Cuff 1996, 21).[14] Architects are central, not because of their professional neutrality, but because of their commitment to the autonomous culture of architecture, that is, to internal formal and disciplinary issues. This expertise allows them to relate forms, images and spaces to social and political issues. Rather than simply solving the problem of a client, the architect here performs like Samuel Mockbee's policy-making artist, a figure who simultaneously shows how things are and how they could be better.

In *Good Deeds, Good Design*, architect Bryan Bell (2004) documents a series of projects by design-build groups, most of them embedded in schools of architecture. Bell makes a slightly different argument regarding the role of design. He notes that the 'technical nature of the built world requires the expertise of architects and planners, it is they who must help people to be involved in [the] decisions' (13). While this is a defence of professional expertise, Bell makes it clear that such help cannot be 'a patronizing gift from the architect,' but the result of a 'mutual exchange between the designer and the client' (13). What makes this exchange mutual is the commitment of designers to enter into a dialogue with local groups, preferably over a period of time and a number of projects.[15]

One example of such a long-term commitment to serving local communities is the BASIC Initiative at the University of Washington. It is comprised of three programmes, the Global Community Studio, the Housing Solutions Studio, and the Local Neighborhoods Studio.[16] The Global Community Studio is organized around an annual design/build project located outside of the United States (most have been in rural Mexico). Students prepare by studying the specific culture they are to visit and the building type they will be making. Design starts the following semester with a two-week on-site charrette with the active participation of the people who will use the building. The next two months are spent constructing the building using local materials, local labour, traditional building types, and passive energy techniques. While the overlap between students and local residents is relatively brief, long-term institutional knowledge accumulates as to how to harmoniously merge the embodied knowledge of a locale, the professional skills of architects, and the pedagogical demands (and archival capacity) of an architecture school (Palleroni 2004).

The Washington programme adheres to the historical definition of community design, emphasizing participation and process (Toker 2007). However, unlike the practices of the 1960s and 1970s, and unlike Hester and Allen's work cited above, there is a clear emphasis on architectural expression. Stylistically, both the Global Community Studio and the Local Neighborhoods Studio generate what might be called a 'do-it-yourself' kind of modernism. The detailing, out of necessity and choice, is a rough version of the industrial aesthetic, using inexpensive materials and hand methods to join them. In each case, the designs stand out from their surroundings, even when incorporating the most vernacular types and processes. They are separated from their surroundings just enough so that both their aspirations and

limitations are recognizable symbols of the intra- and inter-architectural values that produced them.

Architectural aesthetics are also critical to Rural Studio, a programme founded at Auburn University in 1991 by the late Samuel Mockbee. Architectural students move into the poor rural communities in Hale County, Alabama, get to know the people, their architectural needs, and then design, raise funds for, and build structures for them (Moos and Trechsel 2003; Dean and Hursley 2002). The continued success of the programme can in no small measure be attributed to Mockbee's insistence on the marriage of personal artistic vision, direct community involvement, and a long-term commitment to 'the replacement of abstract opinions with knowledge based on real human contact' (Bates 1995, 99). For Mockbee, the segregated South lent itself to historical and 'mythical' understanding – examined in his own vibrant paintings, as well as in the unique materials and forms

found in the designs of the Rural Studio (Moos 2003). Like Bell's work, Rural Studio cannot simply be understood as charity, or as the imposition of architectural values on an unsuspecting client. Neither is it architecture that dispassionately lends specialist knowledge to the will of the people. It partakes of seeming contradictions: using design – representation and organization – to simultaneously announce and improve the public good.

The work of Estudio Teddy Cruz also emphasizes direct community engagement, working with local conditions and materials, and foregrounding the efficacy of artistic

Figure 24.3 (Below left and right) Teddy Cruz, Tijuana River, 1999, photo-construction. This re-mapping of a bird's-eye view of the river is comprised of images of Tijuana, San Diego, and Los Angeles, suggesting the shared histories and destinies of the three.

practices and objects to advance social and political goals. Having investigated the area straddling the border between San Diego and Tijuana since 1994, Cruz's photographic collages represent the improvizational nature of the social and physical conditions found there, while also acting as a model for how to intervene in this paradoxical zone. At once fluid and fragmented, the collages simultaneously embrace and challenge both the hyper-organized and hyper-informal building practices respectively present on the American and Mexican sides of the border. The firm uses the same collage technique to present its architectural solutions, and to describe how proposals evolve (Sokol 2008b; Figure 24.3). In a number of projects, such as Manufactured Sites: A Housing Urbanism Made of Waste/*Maquiladora* (Figure 24.4), the role of the professional architect is to provide a design infrastructure into which citizens literally add their own programmes, labour, materials, and aesthetic.

Here, high and low taste-cultures, static and dynamic processes, professionals and laymen all mix to produce a complex yet highly organized landscape, qualities that also describe Cruz's own collages. For both Cruz and Mockbee, artistic output is not only a source for personal reflection but an integral and active agent in (re)forming their respective regions.

CONCLUSION

The diverse firms described above reveal the fragmented state of architectural practice. They also illustrate its desire and ability to expand beyond the false choice between elite designers and socially engaged activists. Yet, while it contains many discrepant entities, the discipline is still far from being discrepantly cosmopolitan, as Robbins defined it. Despite architecture's pluralism, it rarely strives to

transcend this partiality. At the macro level, the discipline does take on progressive aesthetic, technical, and social agendas, but, these attempts are too often isolated and independent from one another. As a result, firms can fall into the trap of conventional professionalism, namely, of limiting themselves to a specialized product or service, relevant only for a specific clientele, building type, or location. Such a position risks becoming unresponsive to forms of intelligence and responsibilities other than the ones it focuses on.

Inventive representational techniques and forms need not be limited to highly capitalized projects, nor should the presence of a community agenda negate technical or formal innovations. Aesthetic shortcomings should be no less troublesome than social or technological ones. The danger of ignoring any of architecture's responsibilities is to retreat into the limited domain of expertise, rather than expanding into a culture of discrepant cosmopolitanism.

Figure 24.4 (Below)   Teddy Cruz, Manufactured Sites: A Housing Urbanism Made of Waste/*Maquiladora*, Tijuana, 2005–2008, collage. The proposal takes advantage of the flow of prefabricated parts from the US to Mexican factories (Maquiladoras) where they are assembled and then returned to the US as finished goods. Here leftovers from these factories – along with other industrial refuse – are re-purposed as building materials.

NOTES

1 In addition to describing the person-to-person relationships that exist between those who commission, conceive, and design the building, architecture as a social process can also refer to the effect an architectural artifact has on inter-personal relationships. See Montgomery (1989) for the interest in both these definitions within modern architecture.

2 The contemporary interest in the idea of a network practice is examined in both the special edition of *Architectural Design*, edited by Chris Hight and Chris Perry (Hight and Perry 2006a) as well as in the collection of essays edited by Tierney and Burke (2007). For a pre-history of this movement, see Wigley 2001b.

3 For an overview of contemporary examples of design build practices see Bell 2004; see also Curry 2000. For historical and contemporary examples in Europe, see Blundell Jones 2005. For the changes in the nature of these practices see Toker 2007.

4 There are currently over 40 community design programmes embedded in schools of architecture, over half of which were begun in the 1990s (ACSA 2000). See also Architecture for Humanity (2006) for projects supported by governmental and non-governmental organizations, specifically in response to natural and man-made disasters.

5 This form of practice was only approved by the American Institute of Architects, the voluntary professional association for architects in the United States, in the late 1970s.

6 For the historical shift in community and participatory design programmes from an advocacy to entrepreneurial model, caused by the conservative political policies of the 1980s, see Comerio (1984). For an update on the effects of this, see Toker (2007) and Toker and Toker (2006).

7 Similar programmes that mix a social commitment with technical and aesthetic innovations exist at the University of Washington, University of Texas at Austin, The University of Utah and Kansas State, and the University of Louisiana-Lafayette. There are many other programmes which share the social commitment but not the aesthetic one. See Bell (2004), Curry (2000), Hardin (2006), and Sokol (2008a).

8 The requirements for practitioners in the United States are clearly laid out for architects in the code of ethics supplied both by the AIA (2004) and NCARB (National Council of Architectural Registration Boards, the institution that administers the licensing procedure for architects) (2008). See also Cuff (1991, 39).

9 Linda Pollak makes an important distinction between collaborative and interdisciplinary practices, it being that the former does not demand an overlap or exchange of information, while the latter implies a contested domain of expertise and knowledge that needs to be more actively integrated with one another. She argues that this is this area where expertise is shared, limitations exposed and innovation occurs (Pollak 2002). For examples of required collaboration see the competitions for Downsview Park in Toronto and for Ground Zero in New York.

10 See Toker and Toker (2006) for how the participatory practices of community design have been repackaged by New Urbanism for a clientele on the opposite end of the economic spectrum than the one it was originally created for.

11 See McLeod (1983) for the relationship between modernist architectural theory and scientific management.

12 See Rheingold (2003), who Servo cites as a source for the connection between digital and social networks to produce new social institutions.

13 See Toker (2007) for how New Urbanism has 'hijacked' both participatory methods and imagery to 'aestheticize' the politics of community design.

14 On the importance of representation to achieve other ends, see Martin (2006).

15 See also Bell and Wakeford (2008) for an updated and expanded collection of these kinds of 'public-interest' practices as well as Sokol (2008a) for current academia passed practices.

16 The Global Community Studio is dedicated to working with communities outside the United States; the Housing Solutions Studio works on housing projects for Native American Tribes; the Local Neighborhoods Studio focuses on small-scale constructions in and around Seattle.

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MANAGING FLOW

Architecture's investment in the values of stability, groundedness and longevity, while conventional and by no means uniform, is a resilient disciplinary trait. It is an investment that has tended to marginalize those other mutable, ephemeral and fluid conditions that, by necessity, also constitute the medium of architecture. Dealing with fluctuations of air, sound and light, the fluidities of water, the entropic tendencies of matter and the movements of people are all part of architecture. Yet such knowledge has typically been consigned to either technical appendices or assorted marginal spaces of architectural scholarship. Sporadically, it finds metaphorical expression in the 'streamlined', 'folded'

The images on this page stand as twin provocations for this chapter. The first image (Figure 25.1 Above) is the work of graphic designer Paul Mijksenaar at Schiphol Airport, Amsterdam. The second (Figure 25.2 Below), by photographer Adam Ferguson, portrays a slum dwelling on the edges of Mumbai's International Airport.