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Practice in Architecture

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# Knowledge Exchange and Participatory Practice in Architecture

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*Abstract: The practice of architecture is evolving as contemporary societies become more heterogeneous. Architecture is no longer limited to being an exercise in the manipulation of form and the realization of function; instead, it is taking up an increasingly significant place in the resolution of real-world conflicts and problems. In fact, the practice of participatory design is becoming the core of city and community design via a process that emphasizes community involvement and public engagement. This paper shows how this participatory practice generates a new “design dialectic” across professions, and how it can serve as a platform where the community can voice their design aspirations. It evaluates two case studies in Hong Kong, where the establishment of a design and research unit dedicated to interdisciplinary practice evolves into a complex entity capable of responding acutely to community needs. The integration between design professionals, seasoned educators, government departments, and community organizations enables an emerging paradigm in knowledge exchange. This participatory mechanism has the potential to challenge traditional top-down design practices and prompt change in existing institutional frameworks. The paper posits that the adoption of this approach empowers the design and research unit to become a breeding ground of constructive “design dialectic” that promotes the interaction between institution and community and the resolution of social challenges.*

*Keywords: Knowledge Exchange, Participatory Design, Professional Practice, Design Dialectic, Hong Kong*

## Introduction

As British urban planner and scholar Patsy Healey (1997) observed in *Collaborative Planning*, our contemporary societies are experiencing “a shift from homogeneity to heterogeneity in our conceptions of possible lifestyles and household forms. There is now much more consciousness of social diversity and the differences among us within social scientific and planning thought than there was in mid-century” (Healey 2006 126). This paper focuses on two case studies in Hong Kong where the community involvement and publicly engaged process become the core of design in the city and community, with a particular emphasis on the design research projects of the Community Project Workshop at the University of Hong Kong’s Faculty of Architecture. This paper aims to illustrate the adoption of a new kind of “design dialectic” that engages designers in their communities and promotes knowledge exchange between academic theory and architectural practice.

This dialectic has evolved in response to the rapid transformation of design education, research and practice as society faces new challenges. This new form of practice fits into the idea that we now live in a pluralist society that is marked by the generation of multi-sided conflicts and interests of groups (Healey et al. 1988, 32; Grant 1989; Brindley et. al. 1989). Design is no longer confined to the superficial articulation of form, but instead plays a meaningful role in resolving real-world needs and even crises, attempting to benefit as many people as possible, rather than favoring a targeted consumer group. The world of design has witnessed a paradigm shift from traditional products and services to an approach focused on user behavior and community.

Today, there is a strong emphasis on collaboration between design education and industrial or professional practices, as evidenced by increasing collaborations between government departments, non-profit organizations and private groups. Design schools in Asia, Europe, and the USA are coming up with innovative pedagogical approaches and special curricula dedicated to promoting an active engagement between the institutions and their communities. The benefits of this approach include the academic richness of a mutual knowledge exchange with outside

professional practices; the promotion of design research applications in the industry; and the demonstration of best practices in multidisciplinary design innovation for social good.

This paper focuses on the design research projects undertaken by the Community Project Workshop, which was established in the University of Hong Kong's Faculty of Architecture in 2009. The Workshop's goal is to provide design research, methodologies and practices to support better design theory and practice in the community, and to this end, the group has completed over 30 community projects involving academics, professional institutions, private commercial groups, community stakeholders and government departments. As architectural design evolves into a complex system capable of responding to community needs, the University has the unique opportunity to foster a strong commitment to knowledge and methodological study as well as practice and implementation. The Workshop encourages knowledge exchange by undertaking comprehensive research activities spanning all disciplines including heritage conservation, landscape design, urban planning and interior architecture. The group has demonstrated design leadership across communities in the Asia Pacific region, with completed projects ranging from environmental design studies for district councils, public engagement workshops with district representatives, sustainability design proposals for urban renewal authorities and art installations in public spaces.

These projects have generated a unique design dialectic that epitomizes a two-way exchange process, embracing and enhancing the design knowledge needed to improve our human, social, cultural and environmental well-being. As Lane H. Kendig and Bret C. Keast (2010, 9) state in *Community Character*, "planning for community character requires that architects, planners, urban designers, policymakers and citizens clearly communicate their goals, generating a contemporary design lexicon which reflects our current social and cultural context. The reason for more city and community character is that they potentially become powerful tools that can incorporate architectural or environmental considerations into providing a community with a strong vision that carries through to zoning regulations (Kendig and Keast 2010, 2). Therefore, design today will require a full understanding of the physical environment that people want and this demands the community engagement practice offer a new perspective into a design paradigm.

## **Interdisciplinary Collaboration as a New Design Practice Dialectic**

In the traditional Western interpretation, the titles "architect" or "designer" have often been "tightly defined as a suite of professional and regulatory organizations work to preserve and defend the traditionally understood role of architects and the legal definition and obligations of the title" (Burke and Reinmuth 2012). Design practice has been interpreted by the way in which the practitioner practices to shape the environment and the way the environment shapes the practitioner in response. However, as designers and their industries evolve to reassess the current contemporary context and environment, we begin to question whether the strict disciplinary boundaries still exists as before, and whether if design practices still operate with the current regulatory and contractual regimes held so tightly whereby inhibiting the profession rather than protecting it as intended.

According to the traditional professional practice handbooks, the scope of services engaged by architectural designers was "restricted" into a few stages of engagement: namely: inception, feasibility studies, design schematic, project design, contract documentation and construction (Huang and Chan 2009, 12). This rather limited point of view of design dialectic might have restricted the innate nature of creativity so profoundly inherit in design professionals. Some might criticize that single discipline design might have been the source for many unmatched user-designer expectations or under-utilized spatial arrangement observed. Therefore, it is arguable that only until recently, the inherent "multidisciplinary nature" of design practice has been introduced to the design dialectic.

With recent developments in the fields of design such as how Computer Aided Design (CAD) dominated designers' ability to think as well as the technology like Building Information Modeling (BIM) which expedited the process of generating and managing building data, there is a high degree of automation, accuracy and productivity in building design and fabrication in recent history. Globalization, on the other hand, shortens physical distances between countries, allowing more collaboration to be formulated. The switch in multidisciplinary collaborations was also motivated by cultural change externally and internally by a drive to formulate an agency of design within the context of our built environment. We are observing new categories of practices emerge and more community stakeholders to be part of the design process.

These formations of design practices in their turn are rousing growing interest and debates around broader notions of how the work of design industries go beyond traditional practice structures, challenging the nature of the designers and the profession's education, canon, dialectic and potentials. This new theory might "also help to build up, across the diversity of ways of living and ways of thinking, an institutional capacity to collaborate and to co-ordinate. It also serves to build; "institutional coherence" through which shared problems about the way urban region space is organized can be collectively addressed" (Healey 2006, 33). So at this very moment it is pertinent to ask how new community engaged design dialectic can construct itself. How do designers structure the most effective models of practice in order to recover the agency of their practice? Such quest remains central to much contemporary literature on the future of the design profession, which addresses the comparative agency of the design when operating between traditional and more speculative or unusual modes of designing our communities.

Architecture and interior design today do not operate in a vacuum where design intellects operate in a singular linear trajectory. Rather, designers collaborate with multiple disciplines, ranging from interior designers, landscape designers, engineers, conservationists and more. The type of design we observed today branches beyond traditional disciplines in architecture, interior design, fashion design and graphic design. The multi-disciplinary nature in contemporary practices makes design one of the most dynamic and evolving fields of professions. Through communication and an active "dialectics" between various professionals and "community stakeholders, design practice takes on a new life and becomes engaging. This engagement provides a platform where various roles can exchange expertise which is not in the formal design education and be able to give added-value to a holistic thinking approach. One benefit in this interdisciplinary design practice is the added attention to human interaction in design and a participatory approach where building users, stakeholders and relevant government agents can collaborate responsibly in the discourse, formation of design project, the actual design stages and implementation processes. This paper will illustrate how a multi-disciplinary approach is a catalyst in achieving a sustainable social, economic and cultural development in the fields of design through two case studies that were completed in Hong Kong.

## **Establishment of a Research Unit to Promote Multidisciplinary Design Practice**

In 2009, the Faculty of Architecture at the University of Hong Kong established Community Project Workshop (CPW), a research unit dedicated to undertake and promote multidisciplinary design practice in the fields of architecture. CPW engages academic staff and university students in the local community through a series of commissioned design consultancies and research projects. These projects included design and consultancy services to government and non-government organizations, and other non-commercial projects requiring interdisciplinary expertise drawn from all the disciplines of the faculty. In this paper, the community participatory approaches and methodologies of work samples of CPW are presented alongside their impact to the development of the city and community.

Over the past years, CPW has formed active collaborations with multiple district councils and exercised interdisciplinary approaches in conducting design-related research. Having a strong interest in pursuing an active social-cultural interaction while encouraging multiple disciplines to be involved, the CPW draws expertise from architecture, landscape architecture, heritage conservation, real estate and construction, urban planning and design in each of the research projects. The outcome is one that is value added and can truly show how a holistic and community interactive approach can foster a sustainable social, economic and cultural solution in the complex fields of architecture and design.

### ***Case Study 1: Design Proposal and Review of Public Parks in Hong Kong***

The multi-disciplinary unit CPW was approached by the District Council of Wan Chai to undertake a review and a design proposal for all the public parks in that area. Wan Chai District (which can be translated as “Cove District”) is one of the 18 districts of Hong Kong and is located in the north side of Hong Kong Island. With a population of about 170,000, it has over 80 public parks that are under the government jurisdiction. The government department which manages the public parks of Hong Kong is called the Leisure and Cultural Services Department (LCSD), and its responsibilities are mainly focused on the operation and maintenance aspects of parks.

For this research project, CPW collaborated with the Division of Landscape Architecture at HKU and the Social Science Research Centre and collectively offered professional expertise on the design solutions and data collection. Academic staff worked with cross-disciplinary students and researchers on the best approach to contribute to this community in an engaging manner.

According to CPW’s survey, the majority of local interviewees complained about the increasing standardization of park facilities. Children and elderly wanted more public facilities specially tailored for their physical conditions, while other residents wished to see that parks are themed to offer different experiences from their private gardens.

On top of the demographic distribution of opinion, CPW identified other urban considerations mutual benefits of parks, addressing how “community networks prepare their plans on public or community interests bases, rather than commercial ones, because their aims are mutual benefit and shared values rather than financial profit.” (Heywood 2011, 86). As a result of evaluating various stakeholders’ voices, the major design issue that was identified is a mismatch of park facilities in the district and the form of governance.

Some parks have excessive facilities but no visitors; other parks which are easily accessible lack proper facilities or management. The sets of statistics collected from this study and the opinions gathered from public sessions assisted the research team in a multi-prong design strategy in reforming public parks that considers both short term and long term goals. “To move confidently into the future...we need to identify long-term directions as well as short-term actions.” (Heywood 2011, 89). For short term objectives, additional facilities were proposed in a detailed design scheme for popular parks where existing facilities could not match their demand. Most of the new facilities proposed in the design were specifically targeted to children and elderly groups as identified in the research findings.

Since CPW assembled professors and students from the Department of Architecture, Division of Landscape Architecture and the Social Science Research Centre, they formed a cross-disciplinary team who also devised longer term design objectives. The interesting findings about public parks usage included innovative design schemes such as barrier-free access to the park, urban organic farm plots for school groups, new pet facilities and elderly-and-children park facilities. These would not have been possible without the multiple perspectives gathered from various parties. The design dialectic generated from the joint research was recognized as value-adding research compared to a single unit research findings. New spatial innovation such as sensory exploration and environmental considerations were also proposed to offer a more

enhanced park experiences beyond just visual and touch dimensions while making the solutions sustainable. “Space is interpreted as a latent dimension waiting to be given purpose and character by our intention and activities and will differ in meaning between ages, experiences and intentions of users. Whether collective or communal places, planning will exert different standpoint on physics, aesthetics or psychology” (Heywood 2011, 218). Having established this mission, CPW team presented new proposals which emphasized the interaction between urban activities in various arenas, and to encourage more community participation for all public citizens.

The impact of this research was significant in terms of pushing forward the improvement of public park design in the area, raising more environmental consciousness and revamping local governance. Since the research was generated by CPW, there has been more engagement of designers on board in this dialogue for implementation of design concepts in selected parks as pilot. Today, there are over a handful of parks in the district of Wan Chai which have benefited from this revitalization, resulting in a huge improvement to the previous inaccessible, short of facility entities we observed. Research findings helped pushed a more community engaged dialectic in design practice to make a positive contribution in utilizing multiple stakeholders’ expertise.

Table 1: Population and Park Area Distribution in Wan Chai District

Constituencies in the district of Wan Chai	Constituency Code	Population according to Census	No. of public parks in Wan Chai	Total Area (m2)	Ratio of Park Area / Population
Hennessy	B01	13,277	3	5,220	0.39
Oi Kwan	B02	13,340	7	6,070	0.46
Canal Road	B03	13,525	2	19,200	1.42
Causeway Bay	B04	13,549	2	4,020	0.30
Tai Hang	B05	14,083	7	11,550	0.82
Jardine’s Lookout	B06	14,682	11	20,170	1.37
Broadwood	B07	14,503	4	6,540	0.45
Happy Valley	B08	14,572	5	17,660	1.21
Stubbs Road	B09	14,604	10	23,700	1.62
Southorn	B10	12,923	15	31,686	2.45
Tai Fat Hau	B11	14,042	8	4,984	0.35
Sub-total		153,100	74	150,800	0.98

Source: Community Project Workshop (CPW), 2011

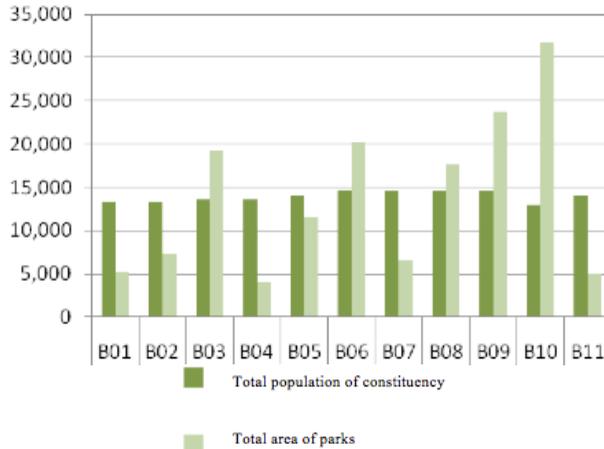


Figure 1: Population and park area distribution in Wan Chai District  
 Source: Community Project Workshop (CPW), 2011

### Case Study 2: Research Study for the Waterfront Promenade in Kwun Tong

Kwun Tong was one of the earliest satellite towns of Hong Kong. It witnessed both the population boom as well as the heyday of Hong Kong’s manufacturing industries beginning in the 1950s. The area experienced phenomenal economic growth as its factories churned out garments, electronics, toys and other products. However, after the 1990s, most of the factories moved north to China in search of cheaper labor, the light industries in the district faced a major decline that left many factory buildings vacant. The Government announced new policy measures to promote the revitalization of older industrial buildings through redevelopment.

As part of the redevelopment scheme, the Kwun Tong Promenade Phase I which was a vacated cargo terminal was converted into a public space which was officially opened to the public in early 2010. Many critics observed this event as a milestone of waterfront improvement in the Kwun Tong District, both improving the streetscape and offering additional public leisure areas to the local residents. The promenade area was built on top of the former Public Cargo Working Pier, involving over 7,340 square meters of areas and constituting a larger urban scheme of redevelopment of the neighbor area of Kai Tak area – an old Hong Kong Airport before 1997. The expertise called into evolving a new design dialectic encompassed planners, architects, urban designers and conservationists to offer insight into the future urban design of this district.

In addition to background research and site visits, CPW conducted two public consultation workshops where commercial sectors, private businesses, government representatives, school groups, interested community groups were well-represented. The main purpose of the workshops was to provide a platform for the various stakeholders to express their views and suggestions towards the design and development of Kwun Tong Waterfront Promenade Phase II. Participants of the public consultation were divided into subgroups to explore the possibilities of revitalization of the waterfront areas. Their views are immediately exchanged with district councilors, government architects, urban designers, and non-governmental organization such as Society for Protection of the Harbour. A list of consensuses and discrepancies was generated after two sessions of public consultation meetings.

The most critical dialectic in design practice was this community engaged participatory methodology in design and its impact to the city. As Heywood observed, urban impacts could result in consequences similar to those which transformed the inner areas of many coastal metropolises, this redevelopment of the waterfront requires the participation of all of the stakeholders to balance the different needs of the community. In additional to the public

consultation that is adopted in this project, the project took a step further by performing a follow up survey. A questionnaire based on the consensuses and discrepancies found in the public consultation was distributed through internet and to local organizations. CPW collected over 544 surveys and this data was used to cross check with the consensuses.

According to the survey conducted, over 70% of the population expressed that the major anxiety to visit the new design at Phase I Promenade was related to its location and inaccessibility, while majority of the population was concern about the social polarization that the new proposed infrastructure would bring to the waterfront of Kwun Tong. While knowing that “those anxious about community development, about increasing social polarization and social tension seek ways of making better links between economic opportunities, environmental conditions and the quality of social life.” (Heywood 2011, 245). It was still viable to put forth new innovation in the urban scheme such as community facilities such as bicycle tracks, user friendly walkways, water sport centre and food kiosks which were incorporated into the design dialogues presented in the research.

The proposed design of the Kwun Tong Waterfront Promenade therefore was based on both quantitative and qualitative methodologies, achieving multiple scholarly contributions to the design dialectic. First, the design scheme helped to increase the visitors’ flow to the new waterfront areas and secondly, it helped to accelerate urban renewal in the district. The study proposed a new monorail system to alleviate the current transportation bottleneck conditions. The specific monorail was hoped to be a catalyst for urban connectivity, but also a new landmark for the district’s tourist industry, but its implementation and traffic impact must be looked at seriously by traffic engineers in the years to come.

The final design integrated different programmed activities that were accepted by the community as a group. A series of green walkways connected the urban core to the promenade, providing a pleasurable pedestrian experience. The landscaped paths link up the district through art activities, creating a local “Art Avenue” in the district. The overall design, collaborated by urban planners, designers and more importantly citizens, helped to revitalize the urban network holistically. It was expected that within 10 - 20 years, the new art-related industries could bring more art, entertainment and commercial activities to the district, resulting in a more vibrant Kwun Tong district. The mix-use of public consultation and questionnaire survey enabled a study to be both qualitatively and quantitatively convincing. In a context of public consultation, discussion could tackle the problem at stake and make exchanging of ideas possible. The findings represented the voice of the attendants, and CPW was able to reflect their voices to the relevant government departments for future action and implementations.



Figure 2: A Publicly Engaged Design Consultation Becomes the Basis of a New Design Dialectic

## Conclusion

Having recognized that “design dialectics” is a metaphor for an intellectual dialogue, enabling multidisciplinary professionals such as architectural designers, landscape designers, interior designers and urban designers to exchange ideas in a common language, this paper showcases how a new design dialectic is generated amongst the various professions and how this dialectic also serves as a common platform where the community can share their design aspirations. In response to a critical objective raised by this conference, we wish to see a design dialectic that not only involves designers, but one that also entails a dynamic scope of collaboration involving different types of interaction, ranging from institutional to community collaboration.

In the two case studies presented from the Community Project Workshop of the University of Hong Kong, we witness that a dynamic engagement process with the community has significant attributes to the design disciplines as well as the future planning of Hong Kong. While fostering a collaborative design dialectic, the research projects were also used as a mechanism to revamp the notion of contemporary design practice as well as reforming existing political framework. To change the existing political system requires reflection on the process of organizing to undertake design work as well as issues in hand. While recognizing design is constantly evolving to meet new social diversity, our contemporary design practice must aim to benefit as many people as possible rather than a targeted consumer group. The world of design, therefore, is working towards a substantial paradigm shift from the traditional products and services to an approach focused on user behavior and community. The strong emphasis on integration between design professionals and practices such as government departments, non-profit organizations and private sectors is seen as establishing a new design dialectic to promote social consciousness and diversity.

The innovative approach adopted by the research unit at the Community Project Workshop has illustrated the advantages of establishing a dedicated institutional unit in promoting active engagement between design professionals and local communities. The benefits of this participatory approach, while advocating multidisciplinary design innovation and collaboration with industries, are evident in the improved design schemes on the built environment and effectiveness in the project implementation.

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