The Urban Design Studio as a Catalyst for Change: Fresh Eyes on Gibsons, Fall, 2001

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INTRODUCTION

THE MODELS AND METHODS by which we design and plan built environments are shifting – from prescriptive, rule-based codes to an awareness of the need for more inclusive, collaborative and consensus-based methods and models that allow for flexibility. As a result, issues of environmental quality, liveability and community, are beginning to be negotiated collectively among the range of private and public constituents involved in urban design and planning. In the face of such a shift, the traditional 'scientific method' of design and planning is increasingly powerless to address the multivariate problems so characteristic of our interconnected ecosystems and increasingly interconnected global culture, while models of design research that recognise indeterminacy, uncertainty and complexity, are becoming more valid. In professional design and planning programmes such shifts are casting new light on the ways in which design research is approached and the means by which it can be translated into meaningful results.

This paper argues that an urban design studio can act as a significant catalyst for reinterpreting and reinvigorating communities on the cusp of significant change. It proposes that integrated, interdisciplinary design methods and processes can result in important and practical research for communities and design-related professions dealing with contemporary urban issues while also yielding substantial educational benefits for the design student.

The Fall 2000 University of British Columbia (UBC) Urban Design Studio took as its mandate an investigation into the possibilities for a community in economic transition and the role urban design can play in assisting this transition. As the client in the studio process, the Gibsons community, located on the Sechelt Peninsula in British Columbia, wanted to generate ideas that they could move forward on. The elected officials recognised the importance of creating a community that would attract a diverse population and saw generating new visions for their community as a significant first step. The method for doing this was an intensive six-week design studio involving the three disciplines of architecture, landscape architecture and planning.

Run as a series of small charrettes, graduate students were introduced to the town of Gibsons in the beginning of September, and by the end of October had produced a multifaceted strategy for the future of Gibsons. The process used an integrated, interdisciplinary approach to urban design and was guided by four primary goals that were grounded in the principles of ecological design and

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REFLECTION

sustainable urban design theory (described in more detail below). The result was a set of principles and design 'building blocks' that could test emerging policies for sustainable community design in a real community setting, that could provide the citizens of Gibsons and elected officials with a means for assessing plans and development decisions presently occurring and for developing new, alternative strategies for dealing with future decisions. As such, the Urban Design Studio created a body of new knowledge – based in public policy and discourse, and embodied in the five final proposals – about how such a community might approach a mutlivariant set of urban design problems over the next decades.

This article first provides a brief overview of 'Fresh Eyes on Gibsons', the UBC Urban Design Studio (Urban Studio). The overview includes a discussion of the studio's theoretical objectives followed by a description of the present social, political and physical circumstances of the Gibsons landscape. The article then places the studio in the context of wider theoretical discourse on community-based urban design, ecological design and urban sustainability. Then follows a discussion of the methodology undertaken for the studio and its outcomes. The article concludes with a discussion of some of the problems and potentials arising from the studio methodology and the implications of such a methodology on urban design research within the context of the design studio and on the design professions in general.

UBC URBAN DESIGN STUDIO OVERVIEW

Studio context

Since 1993, the UBC School of Architecture and the Landscape Architecture Program have jointly run the Urban Studio, with the general aim of using urban design to explore a range of design and community development challenges facing the expanding Greater Vancouver Region and larger Georgia Basin (the trans-border watershed that includes the southern British Columbia and north Washington coastal areas). In the fall of 2000, after many years of partial involvement, the UBC School of Community and Regional Planning became a full partner in the Urban Studio. This was the first time at UBC that a three-way studio between the three design and planning disciplines had been offered as part of the graduate curriculum.

Studio goal and objectives

The primary goal of the Urban Studio was to explore the potential of urban design to structure an equitable, healthy and sustainable context for the people of Gibsons. This goal was precipitated by a variety of pressing issues that were facing the coastal town. One of many such communities on the edge of the larger metropolitan Vancouver region, Gibsons faces increasing pressures on its economic, environmental and social fabric as a result of social and economic shifts occurring at a larger scale.

The township of Gibsons is a coastal community, connected to Vancouver by a 40-minute ferry ride. Primarily a resource-based community of logging and fishing, the restructuring of the economy as a result of regional and global trends has resulted in a loss of employment in these sectors and a need to rethink the economic strategy of the community. Because of its relatively easy commute to Vancouver, Gibsons has become a residential choice for some workers in the lower mainland of British Columbia as well as for retired people. However, while young families, for example, are first attracted to Gibsons because of its beautiful setting and 'small-town' feel, they become increasingly disillusioned with its lack of community resources and amenities and some are forced to leave. At the same time, residents who have lived in the community for a long time, fear the consequences of new development on the area's character, economy and natural environment. The mayor and council recognised that Gibsons was a community in transition and approached the Schools of Architecture, Landscape Architecture and Community and Regional Planning at UBC to develop a vision for their community that could aid as a framework for future decision making. What became apparent during subsequent meetings with residents of Gibsons was that their deep love for the community was accompanied by a recognition that, for it to survive, it must undergo structural change while also preserving the environment and the lifestyle that define it.

It is estimated that the population of Gibsons and its environs will double from its present population of 10,000 to an estimated population of 20,000 over the next four decades. Such a dramatic growth rate precipitated some basic questions, such as: What will the character of this larger community be? How will the community preserve its identity, its history, its environment? How will the citizens of this landscape work, have families, age, make friends, acquire a home, make a life, face death? And will such changes be for the better or for the worse? Gibsons represents all of the issues that confront the larger Georgia Basin landscape, some of which include ageing-in-place, long commutes, tourism, making the transition from a resource-based economy to a service-based economy, and the preservation of natural systems. The convergence of these important issues placed Gibsons in a unique position to reconsider its role within the larger region, and to chart its course for the future. The Urban Studio was intended to provide the community with visions for this transition.

The explicit objectives that flowed from this broad goal addressed the nature of a community in flux in ways that applied to both the pragmatic as well as the more poetic aspects of urban design.

They included:

1. to design for people and their needs;
2. to use form and structure to make 'places';
3. to provide a particular site with evocative visions for a complex and dynamic urbanism; and
4. to enhance the economic, social and ecological sustainability of Gibsons.

THEORETICAL CONTEXT

Design as an evolving process

The concept of the urban design studio as a 'catalyst for change' is recognised as an important part of the design curriculum and needs to be carefully assessed within the context of an understanding of what urban design constitutes, and the role that design education and research plays in facilitating our understanding of urban processes and patterns. Urban design places emphasis on an integrative approach that includes good form, legibility, vitality and meaning (Sternberg, 2000). While many practitioners still believe in the importance of urban designers as the sole knowledge-brokers and vision-makers in the design process, much design research focuses on the recognition that urban design cannot be done without an active role for those affected by the design interventions. The role of urban design as a vehicle for engaging communities in determining and having control over future outcomes has been documented by Donald Appleyard (1981), Randolph Hester (1984), Henry Sanoff (1990; 2000) and others in community-based design studies, and Donald Schön (1983) and John Forester (1999) in action-based and reflective practice/praxis planning studies. The role of the university in facilitating this interaction has been a recurring theme in these studies. Researchers in these studies call for a socially responsible urban design approach that incorporates user empowerment, collaborative design, contextualism and flexibility of form (Loukatiou-Sideris, 1996).

SUSTAINABLE URBAN DESIGN

The foundation of sustainability is the recognition that the natural environment must be maintained in order to provide for the needs of present and future generations (World Commission on Environment and Development, 1987). In order to maintain the natural environment, humankind must agree on a set of values for incorporating sustainability and develop a political system to support these values. In the urban realm, sustainable planning emphasises the efficient use of space, the reduction in the consumption of material and energy resources, community liveability and the organisation of administrative and planning processes, which can deal sensitively and comprehensively with socio-economic and ecological complexities.

Moreover, sustainable urban design can be understood within the context of recent approaches to ecological design. These new approaches recognise the social and cultural dimensions of ecological design to be just as important as ecological imperatives (Spirn 1988; Corner, 1999). No longer concerned with applying a set of rules (derived solely from ecological science) to the design of physical landscapes, contemporary approaches to ecological design are concerned with "creating the places to think about, appreciate, and advance environmental quality" (Galatowitch 1998, p 99). Such approaches to urban design acknowledge the evolutionary nature of design and its potential to advance new ideas about human

interaction with natural systems, and thereby move design research and practice "beyond the simple amelioration of sites toward practices that also reactivate the cultural dimensions of sites" (Girot 1999, p 59).

These ideas are further supported and elaborated on by faculty teaching the urban design studio. Penny Gurstein (1995) argues that to generate a sustainable approach to urban design requires that form is responsive to process. The accompanying sustainable urban design initiatives should be in recognition of the need for refocusing societal values. If there are to be large-scale societal shifts approaching development, mechanisms need to be instituted at local levels in order for the whole spectrum of citizens to become knowledgeable about the range of development choices. Planners and urban designers can be effective in precipitating value shifts, as educators, facilitators and implementers of institutional change. An integrative urban design has to be based on a new set of criteria that allow for a series of incremental adjustments to be made to planning and design practices. This incremental approach, however, should have a clear vision that will guide the proposed action.

Similarly, Patrick Condon (1996, 2000) argues that we must integrate research methods that accept indeterminacy and contingency. To continue to insist that research results are 'replicable' and 'verifiable' tricks landscape architects, planners and architects into working on 'little tiny problems' at the expense of those that really matter. Condon draws precedent for this assertion from the recent work of the Intergovernmental Panel on Climate Change, a collection of the world's top climatologists who came together to reach consensus on the causes of global warming. The panel agreed to issue the following statement: "It is likely that human activities have contributed substantially to the observed warming over the last fifty years" (Revkin, 2000). Condon finds it suggestive of a broadly based shift in the culture of knowledge building.

This declaration is particularly notable for its inclusion of the words *likely* and *substantially*, which, in their indeterminacy, are indicative of both the impossibility of absolute veracity on the crucial question of global warming, and the unabashed embrace of this ambiguity by the scientific community. To do otherwise would require researchers to wait until the planet literally cooks itself before the 'proof' would be in.

Because sustainability is an evolving concept and, consequently, one that is very difficult to articulate in words, the research generated in the Gibsons studio provides an illustrative model for pursuing new planning directions. Such illustrations can then serve as a research framework for both gathering new data on sustainable urban design and for facilitating an increased understanding of alternative approaches to development decisions. Equally important is the learning experience that occurs for students who learn how to integrate interdisciplinary data sources in order to make informed design decisions.

Like global warming researchers, urban designers cannot avoid working with multiple variants. Yet when variants exceed even a handful, designing a 'controlled'

experiment is impossible, and so too, therefore, are reliability and verifiability. But, how then can knowledge be assembled in such an atmosphere of uncertainty? Consensus-based tools, where the basis of collective intelligence and experience leads to, if not the perfect answer for society's problems, at least very good answers. It is perhaps in this sense that the Urban Studio most completely embodies the concept of the studio as research.

This interdisciplinary studio produced a series of first principles for sustainable communities, verified in the crucible of public exposure and discourse. These same first principles became, subsequently, the building blocks for five urban design 'working hypotheses' with each vision representing an integration of a complex and interrelated web of time, land and cultural longing. In this way a new and more fulsome web of empowering knowledge could be assembled.

STUDIO METHODOLOGY

Design charrettes

A primary challenge for the studio instructors revolved around creating an environment that would yield the most integrated, generative and creative responses to the studio objectives and that would provide meaningful results for the client.

The concept of the charrette was an ideal methodological response to this challenge. Defined here as a time-intensive design exercise aimed at addressing complex urban design challenges, charrettes have, over the past decade, become an increasingly important component of community planning and design processes. At UBC, a series of projects conducted by the James Taylor Chair in Landscape and Liveable Environments has used charrettes to reconcile the disconnection between sustainable development policy and the design of British Columbian communities (see Condon, 1996; Condon and Proft, 1998). These charrettes were developed out of many of the theoretical precepts outlined above and support the assertion that while design may not always be able to produce the one 'best' solution to a design problem, it can provide a means for arriving at a series of potential solutions to the complex problems at hand. The interdisciplinary structure of charrettes further ensures that these design solutions are grounded in a wide body of research and professional best practice. The Urban Studio was conceived within this context and employed the charrette structure and methodology for the majority of design work undertaken by students.

Studio components

The Urban Studio consisted of three major components:

1. *The Transect* - In order to enhance their perception of Gibsons, and to become attuned to the physical, social and associative aspects of the community, students were asked to 'cut a slice' - or a section - through an area of Gibsons. The understanding of living complexity through vivisection - the isolation of the limbs, the organs, tissue, and support organisms of the city as a means to see their

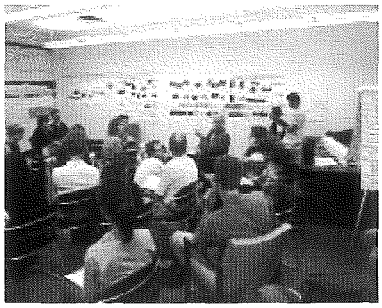


Figure 1 – The Studio discusses the transect project.

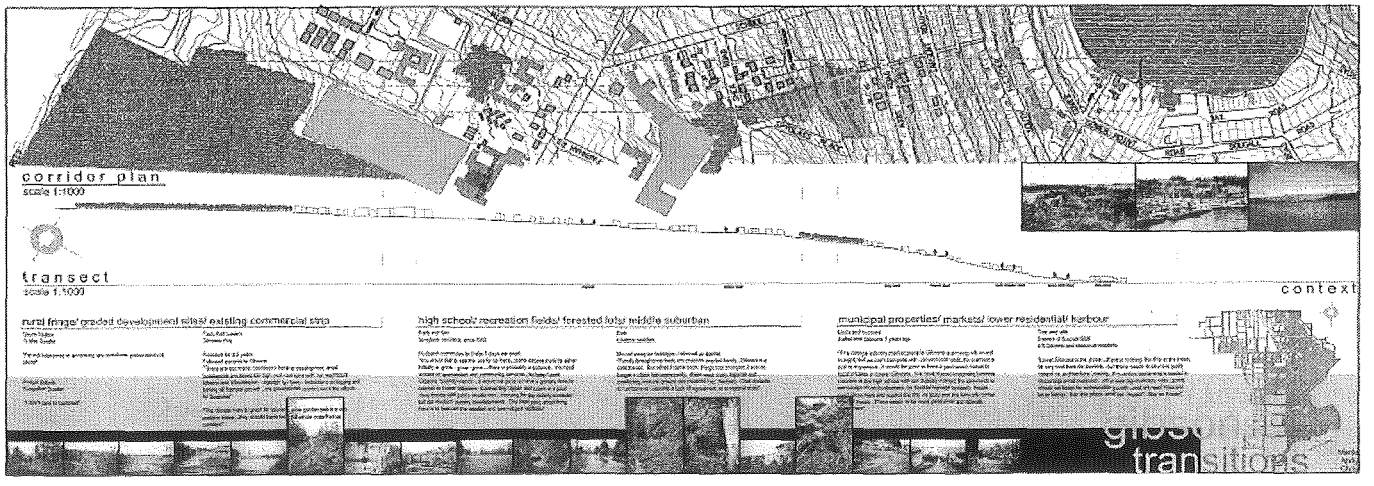
contribution to the whole – can serve as a powerful tool for urban analysis. Such an analysis attempts neither a political nor an artistic construct, because any 'cut through life' is, by definition, empirical, and based on experience.

In groups of two and three, students developed their transects – of 100 metres wide, and anywhere from 500 to 1,500 metres long. This exercise began with a weekend excursion to the town and was presented at the end of the week. The transect allowed students to become familiar with an area of the town by literally walking the length of the section and to unearth the chances, the collisions, the coherences and the multiple identities of the area. It was intended that the transects would serve as a basis for developing a taxonomy of urban conditions that would then become the foundation, or the foil, for thinking in subsequent exercises (Figures 1 and 2).

2. *Community Analysis* – This exercise provided a basic understanding of Gibsons by means of an empirical analysis of past and existing site conditions (that is, social and physical history, building typology and heritage, biophysical features, infrastructure, economic development and policy). However, taking the site analysis one step further than an empirical analysis, the students were asked to respond to the following question: What are the physical consequences of your findings on the future of Gibsons? Thus, the information was not only presented, but it was also synthesised into something useful for future proposal generation (Figures 3 and 4).

3. *Five Team Proposals* – From the community analysis came five team proposals. The five proposals each had two parts: In the first part, teams composed a 'manifesto' as a way of articulating a particular philosophical position toward how various issues and problems facing Gibsons – as presented in the Community Analysis – would be addressed. Using their manifesto, teams developed a series of 'Fundamental Building Blocks', that would become guiding principles to inform their physical propositions for Gibsons. The generation of the building blocks was done using the Community Analysis and through ongoing communication with community members (Figure 5). In this way, the proposals could be grounded in public dialogue

Figure 2 – Cultural, ecological and spatial patterns are revealed in this example of a student transect.



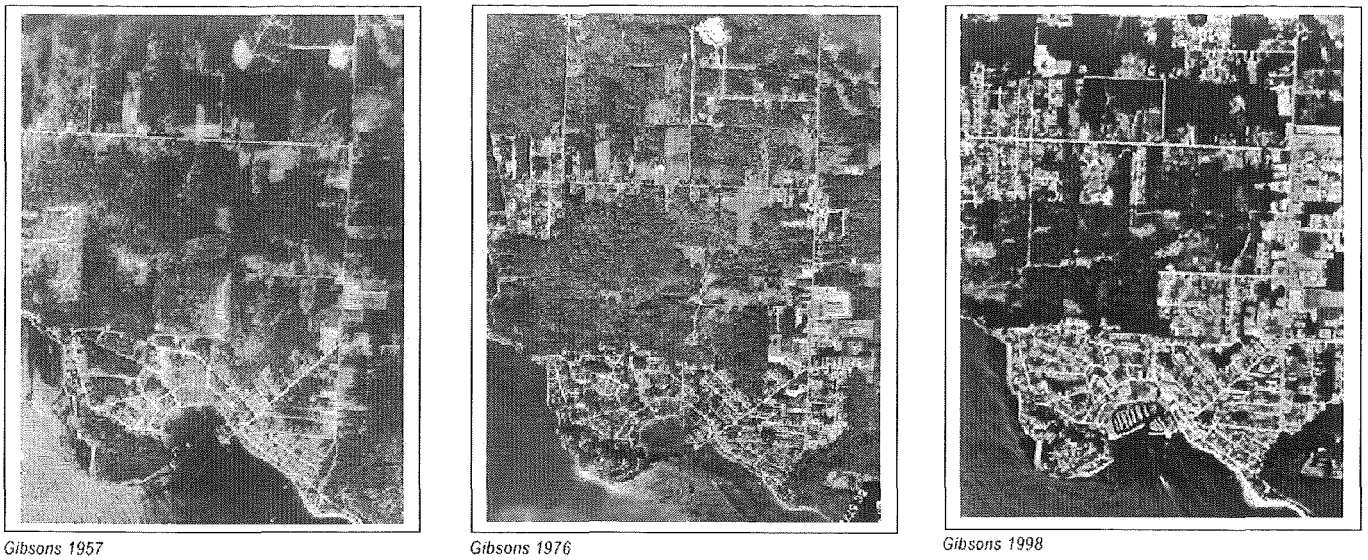


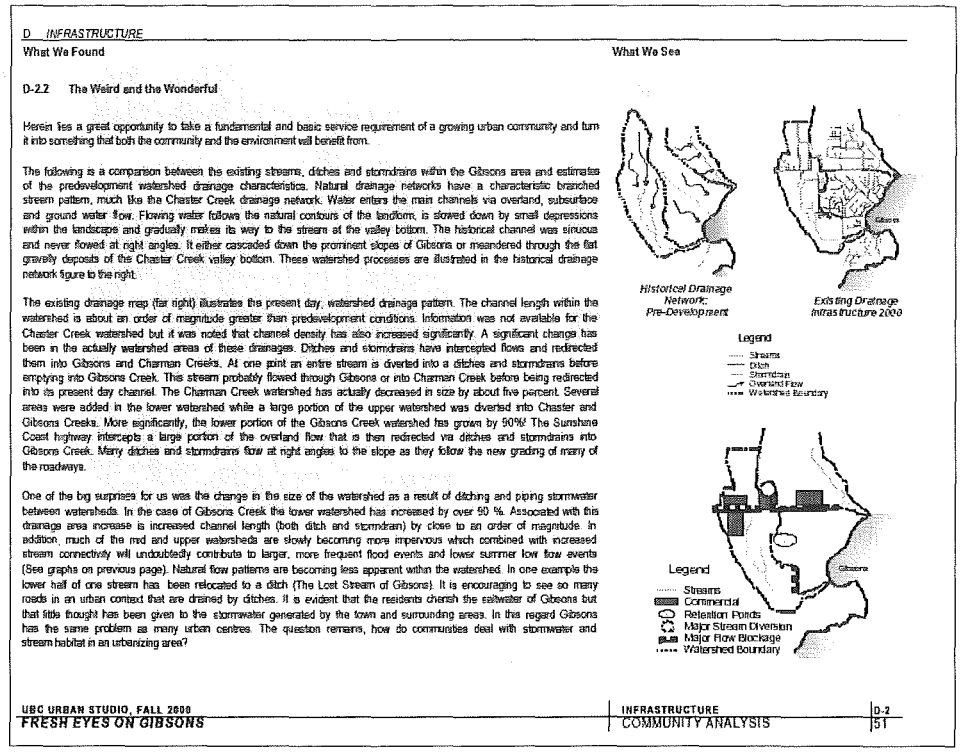
Figure 3 – Community Analysis: The town of Gibsons shown in its historical emergence out of the forest.

and filtered through an understanding of the social and regulatory context that existed (Figure 6). This last point is crucial. Citizens and officials in most North American metropolitan areas are increasingly frustrated by the disconnection between accepted public policy (to protect habitat, provide adequate housing, ensure transportation choices and so forth), and development trends that seem to produce the opposite. The Gibsons studio was viewed as a research tool for exploring this disconnection (and offering procedures for its elimination). The studio also provided a host of 'working hypotheses' (in the form of urban design plans) more in conformity with both accepted public policy and the aspirations of citizens.

At the completion of the course, the results were presented to the public officials, citizens, and town and regional planning staff of Gibsons. The feedback generated from this presentation was incorporated into the final report, 'Fresh Eyes on Gibsons', containing the Community Analysis, Fundamental Building Blocks and Five Team Proposals. This report, together with additional material, was subsequently made available on the World Wide Web for dissemination to a much wider audience.

STUDIO OUTCOMES - PROBLEMS AND POTENTIALS

The urban design studio provided a forum to test the central concepts of sustainability in a real-world setting, utilising ecological, economic and community-based principles to guide its work. As a 'catalyst for change' the urban design studio provided a framework from which the community of Gibsons could advance. Two critical aspects of the Gibsons studio greatly enhanced the viability of the design research produced. First, the interdisciplinarity of the studio yielded a richer, more integrated understanding of the issues of sustainable urban design than would have resulted in a studio involving a single design discipline. Second, the use of various communication tools (including Information and Communication Technology (ICT)) allowed an increased dissemination of research outcomes.



D INFRASTRUCTURE

What We Found

What We See

D-2.2 The Weird and the Wonderful

Herein lies a great opportunity to take a fundamental and basic service requirement of a growing urban community and turn it into something that both the community and the environment will benefit from.

The following is a comparison between the existing streams, ditches and stormdrains within the Gibsons area and estimates of the predevelopment watershed drainage characteristics. Natural drainage networks have a characteristic branched stream pattern, much like the Chaster Creek drainage network. Water enters the main channels via overland, subsurface and ground water flow. Flowing water follows the natural contours of the landform, is slowed down by small depressions within the landscape and gradually makes its way to the stream at the valley bottom. The historical channel was sinuous and never flowed at right angles. It either cascaded down the prominent slopes of Gibsons or meandered through the flat gravelly deposits of the Chaster Creek valley bottom. These watershed processes are illustrated in the historical drainage network figure to the right.

The existing drainage map (far right) illustrates the present day, watershed drainage pattern. The channel length within the watershed is about an order of magnitude greater than predevelopment conditions. Information was not available for the Chaster Creek watershed but it was noted that channel density has also increased significantly. A significant change has been in the actually watershed areas of these drainages. Ditches and stormdrains have intercepted flows and redirected them into Gibsons and Charman Creeks. At one point an entire stream is diverted into a ditches and stormdrains before emptying into Gibsons Creek. This stream probably flowed through Gibsons or into Charman Creek before being redirected into its present day channel. The Charman Creek watershed has actually decreased in size by about five percent. Several areas were added in the lower watershed while a large portion of the upper watershed was diverted into Chaster and Gibsons Creeks. More significantly, the lower portion of the Gibsons Creek watershed has grown by 90%! The Sunshine Coast highway intercepts a large portion of the overland flow that is then redirected via ditches and stormdrains into Gibsons Creek. Many ditches and stormdrains flow at right angles to the slope as they follow the new grading of many of the roadways.

One of the big surprises for us was the change in the size of the watershed as a result of ditching and piping stormwater between watersheds. In the case of Gibsons Creek the lower watershed has increased by over 90 %. Associated with this drainage area increase is increased channel length (both ditch and stormdrain) by close to an order of magnitude. In addition, much of the mid and upper watersheds are slowly becoming more impervious which combined with increased stream connectivity will undoubtedly contribute to larger, more frequent flood events and lower summer low flow events (See graphs on previous page). Natural flow patterns are becoming less apparent within the watershed. In one example the lower half of one stream has been relocated to a ditch (The Lost Stream of Gibsons). It is encouraging to see so many roads in an urban context that are drained by ditches. It is evident that the residents cherish the saltwater of Gibsons but that little thought has been given to the stormwater generated by the town and surrounding areas. In this regard Gibsons has the same problem as many urban centres. The question remains, how do communities deal with stormwater and stream habitat in an urbanizing area?

Historical Drainage Network: Pre-Development

Existing Drainage Infrastructure 2000

Legend
Streams
Ditch
Stormdrain
Overland Flow
Watershed Boundary

Legend
Streams
Commercial
Retention Ponds
Major Stream Diversion
Major Flow Blockage
Watershed Boundary

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INFRASTRUCTURE
COMMUNITY ANALYSIS

D-2
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Figure 4 – Community Analysis: Page taken from the 'Community Analysis' section of the Fresh Eyes on Gibsons report. Students were encouraged to take both an empirical and qualitative approach to analysis. In the context of producing more or less conventional analysis drawings such as those shown here, students were also asked to unearth the 'weird and the wonderful' within the various categories of analysis they had been assigned. In this way their 'fresh eyes on Gibsons' would be put to best use.

Interdisciplinarity and integration

Organised as a series of small charrettes, the time-intensive and collaborative studio environment provided a venue in which students could learn from, teach, and compete with each other in order to address the multiple challenges presented by the Gibsons site. In the face of complex and often competing objectives of local and regional stakeholders, the only way teams could arrive at good solutions was through such a collaborative and intensive process. The three relatively quick design studies (Transect, Community Analysis and Manifesto) leading up to the final five proposals were successful aides for revealing hidden relationships, patterns and processes inherent in the Gibsons landscape and for establishing the theoretical and philosophical boundaries for each team's approach to the site. The collective involvement of students from the schools of architecture, landscape architecture and planning allowed for a rich and fulsome approach to these studies; they would become central tools for generating the five sustainable urban design visions that were presented in the final report. Moreover, as an integrated studio process, engagement with Gibsons citizens, local experts, and professionals involved in land-use issues (that is, local/regional planners, engineers, biologists), allowed students to produce more fully grounded proposals than could have been developed in the context of the studio.

There was a concern that all the proposals would be similar, because the Fundamental Building Block principles were all developed out of a theoretical grounding of ecological design and current sustainable community precedents.

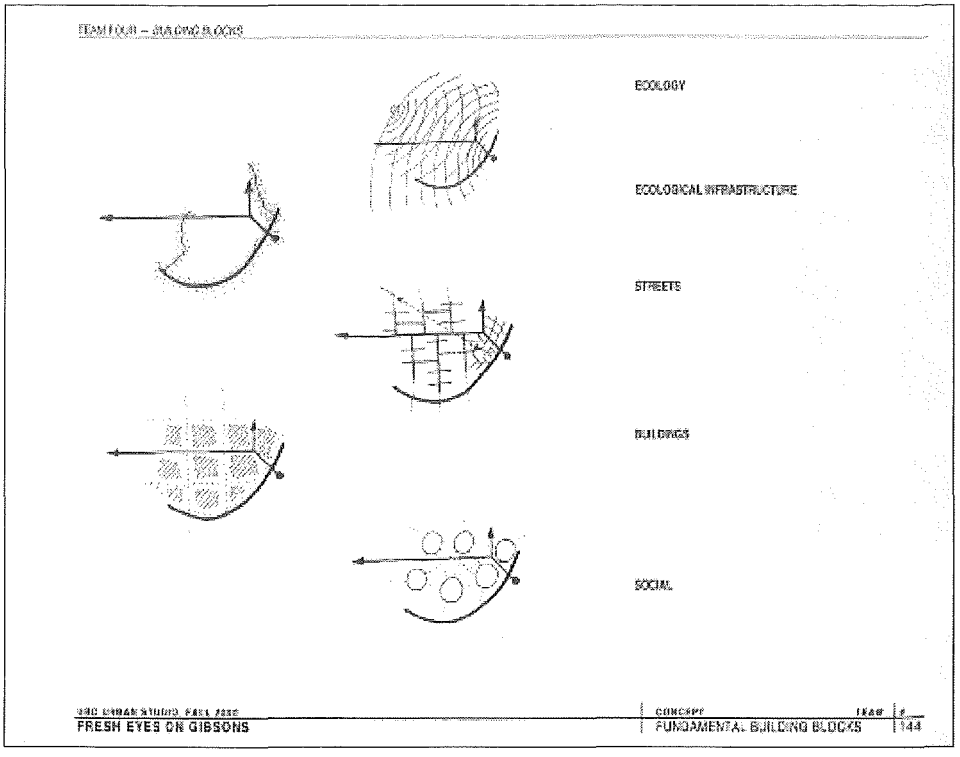


Figure 5 – Fundamental Building Blocks: Fundamental building blocks were developed to provide the social, ecological, and functional armature for urban design plans. In many ways these building blocks were far more important than the plans themselves, because they opened up possibilities much more than foreclose them. Seen here are some of the building blocks defined and used by team four for their plan.

However, perhaps because of the diverse make-up of each team and informed by the intensity of the charrette process, each of the five proposals took a unique approach to the town's growth. This diversity of proposals served an important communicative function. Citizens and officials exposed to the different plans were forced to recognise how a consistent set of principles can produce different outcomes. With this recognition, viewers could thus conclude that the principles were more important than the plans per se. For example, principles of stream protection and habitat enhancement were presented equally with those of efficient road engineering and infrastructure design, thereby underlining the essential and inseparable links between urban street design and stream design. Given that such design outcomes would occur over time and would not be absolute, citizens and officials could also conclude that the process of implementation would necessarily be in their hands. As an urban design model, this would seem to be more appropriately calibrated for a dynamic cultural and ecological context than one that presumes to provide fixed and singular urban design imprints to be either slavishly followed or later discarded as impractical (Figure 7 – Systems).

However, while we found that interdisciplinarity is essential to understand and conceptualise sustainable urban design it can also be difficult to operationalise. The three disciplines of architecture, landscape architecture and planning have very different languages and practices. This can impede collaborative work. For example, planning and landscape architecture students are comfortable with issues of process and the integration of issues, while the majority of architecture students were often

Figure 6 – Team Proposals: Team one's urban design vision for Gibsons. This plan is an expression, one of many possible, of the application of the building blocks, as perceived through the collective intelligence of the team (in dialogue with the realities of the site and its people).

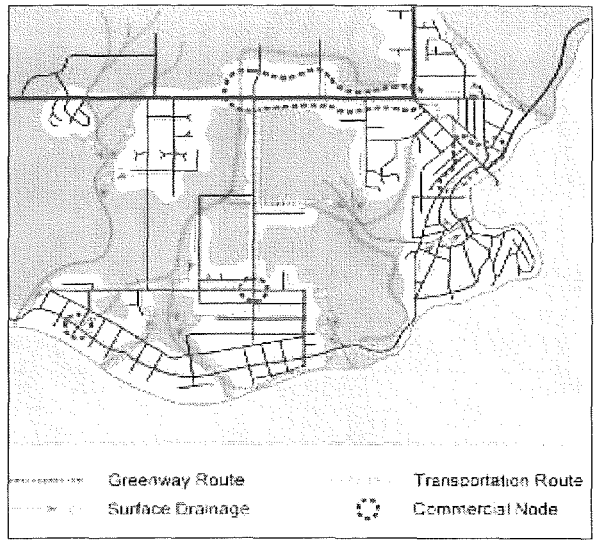


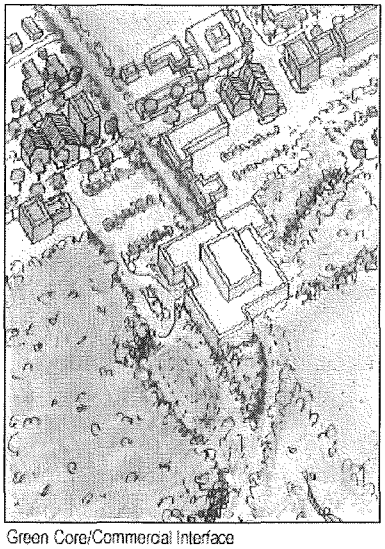
Figure 7 – Systems plans such as the one shown above were crucial in expressing how the plan's flows of people, wildlife, energy and water were integrated for a more sustainable urban landscape.

more comfortable focusing at the scale of the individual building or site-specific intervention. This often gave rise to strong differences of opinion regarding the appropriateness or scale of a number of the proposed interventions. Certainly, these debates are similar to those occurring in the professional milieu outside of the studio and, in this way, provide students with early training for this level of discourse. In fact, the debates in the studio were healthier. The intense charrette format, where everyone is essentially equal, creates an atmosphere of dialogue and debate that is often closed off in 'real world' project contexts, where one firm – be it planner, landscape architect or architect is inevitably the project leader and, thus, often dictates project direction by fiat. This exposure to the charrette as a sustainable urban design methodology provided students with the appropriate tools to apply to complex and interrelated urban design problems in their future work.

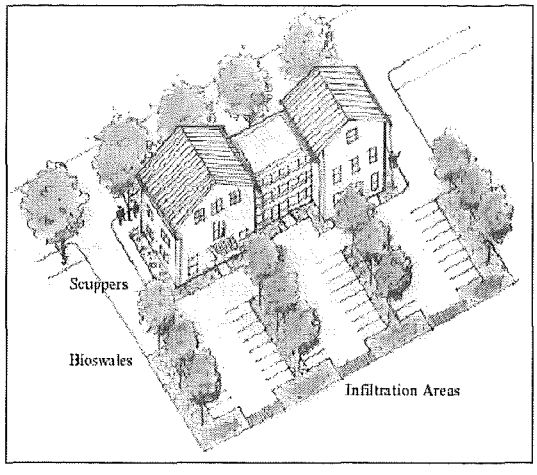
Information and communication technology

The second critical aspect of the urban design studio was the means by which communication between the Gibsons community and students was facilitated. Preliminary, interim and final presentations of student work provided a key venue for students and the Gibsons community to interact, discuss changes taking place and those being proposed, and build a shared understanding of critical issues.

Electronic communication via the Internet provided a second important means for interacting, both among students and instructors, and between community members, elected officials and students. The entire course content and outcomes became available on the Urban Studio website, which continues to be accessed by citizens, elected officials and professionals from both the local community and surrounding areas (Figure 8).



Green Core/Commercial Interface



Green Parking Located to the Back of Buildings

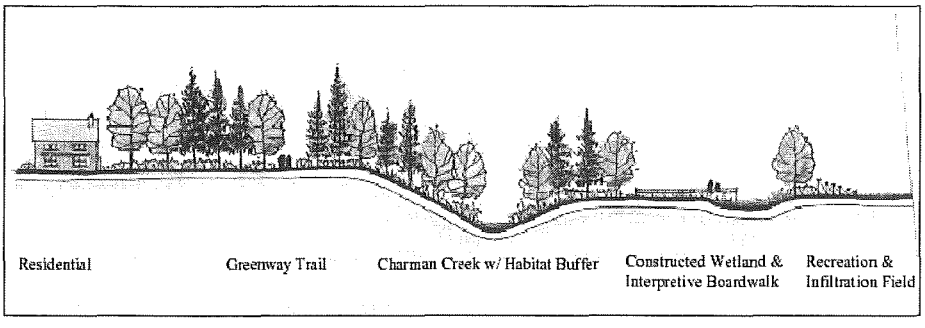


Figure 8 – Detailed explications allowed students to communicate potentially unfamiliar concepts, such as these shown here, that diagram a more sustainable approach to stormwater management.

However, while ICT has the potential to be a significant tool for dissemination of urban design proposals, refinement is needed to move towards increased interactivity to make ICT a more functioning part of the project. While Sanoff (1990) argues that there is a lack of appropriate visualisation tools to generate meaningful public input, Al-Kodmany (2001) maintains that planners and designers have recently shown a renewed interest in community-based planning and that new visual communication tools could potentially enhance the participation potential. Within remote communities like Gibsons, there is perhaps an untapped potential for ICT to foster interaction and collaboration with the university so that increased community involvement in proposal generation and development can be realised.

CONCLUSION

In this article, we offer an example of how a design studio provided a catalyst for a community to approach future change, and for how such an approach constitutes a valuable form of urban design research by using an integrated, collaborative and consensus-based method. The Urban Studio is an accurate reflection of the emerging political context for urban planning research and action in Canada and increasingly in other parts of North America, where collective negotiation between the various public and private entities who have a stake in a planning decision is becoming

more common. This methodology represents more than simply a problem-solving method. It is also a valid and, in some ways the only, reasonable research method for addressing the necessarily multivariate problems associated with urban sustainability. In this method, information is brought together with a collective problem-solving process that accepts ambiguity and indeterminacy as an unavoidable, if not advantageous, attribute of problem solving in our current milieu - a milieu where culture and political power interact with economic and ecological factors in highly complex, but not completely indecipherable ways. Sustainable urban design research in such a context must adopt new research methodologies that are not paralysed in the face of so many variables. Interdisciplinary work toward solutions must be seen as a synthetic method of producing solutions, some of which are replicable as case study models, for communities in transition.

Our work has also been a significant catalyst for reinterpreting and reinvigorating the community of Gibsons. The studio effort revealed gaps in existing knowledge, and facilitated a increased understanding of alternative approaches to development in coastal communities. As such, it is research at its best. The products of the Gibsons studio operate as working hypotheses for a more sustainable urbanism, tested and verified in the interdisciplinary human milieu of the charrette. The process moves forward not when participants are absolutely sure that the *correct* solution has been discovered, but rather when participants have a shared faith that a *good* solution has been found. Because sustainability theory sees human actions as integral to ecological, social and economic concerns, a process where impartiality is ensured by demanding some form of absolute proof would be fatally flawed. Out of the charrette process comes not an *absolute* proof but a *good* solution, its value verified by the commitment of participants and community members to the principles embodied therein. As an indeterminate but consensually validated 'good' solution it carries with it a moral quality that 'proof' cannot. In this way, the good solution is better than a perfect one. The research process described herein provides a way to find consistently good solutions to the pressing urban design and planning problems that confront us.

The products from the Gibsons Urban Design Studio are now widely available to the community via the World Wide Web and have provoked creative dialogue within the local body politic. Our work has provided the community with a dynamic and open-ended visioning tool to help inform their participation in the economic transition of their area, and has helped them understand the role that urban design can play in this transition.

A studio such as this one is both a laboratory for experimentation with design methods and a prod to the dynamic and interactive dialogue that best describes urban design as practised today. The guiding principles for this emerging relationship boil down to these four:

1. Interdisciplinarity between the design professions.
2. Decision making based on principles of sustainability.
3. Creative collaboration between designers and the community.
4. Effective use of new communication tools for increased dialogue between all parties.

Adherence to these four principles can provide the framework for productive new working relationships with communities. These relationships can and should lead to more environmentally sound and socially just communities. They can and should lead to more capable and sensitive graduating architects, landscape architects and planners.

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