PLACES FOR LEARNING:
RETHINKING THE DALHOUSIE FACULTY OF ARTS
AND SOCIAL SCIENCES BUILDING

by
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A thesis submitted to the
Faculty of Architecture
in partial fulfilment of the requirements
for the degree of

MASTER OF ARCHITECTURE (FIRST PROFESSIONAL)

Major subject: Architecture

DALHOUSIE UNIVERSITY - DALTECH

Halifax, Nova Scotia 1999
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0-612-48274-X
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Dalhousie University, in Halifax, Canada, has just embarked on the construction of a new facility for its Arts and Social Sciences faculty. This building is very important for the future of the Dalhousie campus. Its central location will complete a row of large buildings, most of which were built in the 1960's and 70's. As well, the Arts and Social Sciences faculty remains the only one at Dalhousie not to have its own building. Until now, the departments have been located in a number of small houses scattered over the campus. With the construction of the new building, that will change. Within a few years the departments will have left their houses and moved into the new building.

The location of the building suggests that it could become a hub of the campus; it could become a centre of thought, of debate and activity. However, the design being built failed to take advantage of this opportunity. This thesis will look at other solutions in the design of this building so that it could become a centre for the students and faculty members of the faculty, but also for the rest of the university and the general public.

Thesis question:

How can a university faculty building be designed to provide places that foster communication and the exchange of ideas?
Acknowledgements

I would like to thank:

Steve Mannell
Essy Baniassad
Steve Parcell
Ly Tang
Ben Checkwitch
Peter Bogaczewicz
Katy Laycock

Renaud et Claudette LeBLanc
INTRODUCTION

Dalhousie University has just embarked on the construction of a new facility for its Arts and Social Sciences faculty. Until now, this faculty had occupied a unique position: its departments had inhabited a number of small houses scattered over the campus. It was the only faculty at Dalhousie that did not have its own large building or buildings. With the construction of the new building, that will change. In a few years, the departments will have left their houses and moved into the new building.

The location of this design is very important for the future development of the campus. It is in a central position, along a row of modern buildings from the 1960's and 70's. This gives it the potential to become a hub of university activity, along with its immediate neighbours, the Killam Library, the Student Union Building and the Dalhousie Arts Centre (theatre and art gallery).

The design of the building under construction is a very competent response to the demands of the university. However, an important opportunity was missed when the role of this new building was defined.
A Collective Vision

We believe the image of "house" holds great power over the human mind. -Charles Moore

In 1991, a group of architects got together to formulate a campus plan for Dalhousie University. The group included Giancarlo de Carlo, Attilio Gobbi, Charles Moore, William Mitchell and Brian MacKay-Lyons. Workshops were held to get input from the public and a general plan was presented to guide the future development of the Dalhousie campus.

The plan was based on making a garden out of University Avenue. Each side of this garden was to be lined with college quadrangles based on a house module of 9m (30ft.).

This plan suggested the location of the Arts and Social Sciences building. It was to be located on one of the only remaining lots along University Avenue. The main library (the Killam) is to the west, the Student Union building is across the street, to the south, and the Dalhousie Arts Centre, with its theatre, concert hall and art gallery, to the east.
This drawing focuses on the buildings along University Avenue. The chosen site for the Faculty of Arts and Social Sciences is located in the centre of three important university buildings: the Killam Library, the main library on campus; the Student Union Building, a popular building where the students can take care of their daily affairs; and the Dalhousie Arts Centre, which acts as a theatre, a concert hall and an art gallery for the university community and for the city of Halifax.
This plan shows the campus almost as it is today, but with some proposed modifications: University Avenue has been replaced by a series of gardens (in the centre of the image). As well, the four small pavilion buildings that flank the upper garden are proposed buildings that do not exist. The large monolithic buildings flanking University Avenue are the campus additions of the 1960's and 1970's.
Dalhousie campus plan, final vision from *A Collective Vision*.

This drawing shows the proposed campus plan nearly complete: University Avenue is fully transformed into gardens. The residential neighbourhoods have been replaced by a pattern of college quadrangles. College buildings have been added along University Avenue, in front of the large modernist buildings, in order to narrow the width of the gardens and to provide a continuous facade of college buildings that brings the scale of the large buildings down. The quadrangle with the large drum, in the centre of the image, is the site of the new Faculty of Arts and Social Sciences Building.
We don't want any more monoliths.
- Student, Dalhousie University²

The forms of the buildings suggested in A Collective Vision criticize the buildings that Dalhousie had built during an expansion phase of the 1960's and 70's. Those modernist buildings were built as large, four- or five-story boxes that took up the width of a block and had only one main entrance, facing University Avenue. These buildings have been criticized for being too big, oppressive and impersonal.

The house type was introduced into the campus plan to provide a human scale to future university buildings. It was meant to serve as an "intermediate scaling device" between the larger university buildings and the much smaller residential scale surrounding them.
Places of Learning and Knowledge

The arts and humanities are some of the oldest disciplines of study within universities. They question our motives and our desires as humans. They try to unravel that complicated and not always quantifiable realm of the human mind.

They are also the faculties that suffer the most from universities looking to keep their budgets balanced. The rewards of pursuing an arts education are not easily tangible in terms of salaries or employability, and research into the arts is not as profitable as medical or engineering research. As a result, arts and humanities faculties receive less and less funding.

In a university building, of course, there need to be private workplaces: offices and rooms where individuals can do their work, concentrate fully and not be distracted by the world around them. There also need to be classrooms where the teaching occurs.

The academic world needs communication in order to function. In order for knowledge gained to be useful, it must be communicated to other people.

Books, journals and academic periodicals are all there to help this communication. Conferences, organized discussions and public presentation of papers are also there for that purpose. Recently, much has been said about the internet and digital technologies and their ability to increase the speed of communication and the availability of information. This thesis is proposing another addition to that complex network of communication in the form of spaces that encourage informal communication.

It is based on the belief that much of the learning and the development of new ideas come from the exchanges and communication that occur outside the class. A rich environment, full of a variety of experiences, can only enrich and broaden the mind.
A Hub of Activity

The thesis was designed on the site where the Faculty of Arts and Social Sciences building is currently being constructed. This location was kept because it is an ideal location for this building. It is a central location relative to the Dalhousie campus. It places the Faculty of Arts and Social Sciences at a prominent spot along the University Avenue “spine”. This location has the potential of making the new building a centre of activity on the campus. The three large buildings that surround it, the Killam Library, The Dalhousie Arts Centre and the Student Union Building, are all prominent and popular university buildings. If the FASS building were designed as a link and connector between these buildings, it could become a very useful building, not only for the Arts Faculty and students, but for the entire university community. As well, the public spaces of this building, because of the way they are designed, can also supplement the spaces of the three other buildings to occupy. For example, the Dalhousie
The thesis design in the context of Dalhousie University.

Arts Centre currently shows films every Wednesday in the Art Gallery, however, there is no proper space for viewing films in that building. If the FASS building's auditorium or performance space were designed to accommodate film viewing, the Wednesday film viewing could occur in the FASS building. All four buildings could work as a network of buildings to offer the university community the necessary items for their work and life.
DESIGN

Building Blocks: the House

The house module from the proposed campus plan was kept as a starting point for the thesis as a method of breaking down the large building and differentiating among the departments.

Breaking the building up into modules has several advantages: they allow for smaller concentrations of people who work and develop together and they allow individuals to associate with a particular unit within the larger building.

They can accommodate a variety of uses, including classrooms and offices. They can also blend in more easily with the scale of the residential neighbourhoods surrounding the university.
The dimensions of the module are based on common North American residential construction dimensions (4'-0'). The 24'-0" square module is subdivided into 8'-0" and 12'-0" dimensions, which are appropriate for offices and small classrooms.

The walls on the exterior of the module are structural and permanent. They face the exterior of the building and must be weatherproof.

The walls on the interior of the module are meant to be more flexible, constructed of simple stud frame walls that can easily be torn down and rebuilt if the needs of the spaces change.
Early studies of office and workspace dimensions, based on a 4'-0" module.
Arrangement for 6 work spaces.

public spaces:
circulation, lounging, ...
program undetermined

private spaces:
offices, classrooms,
determined program

Arrangement for 3 offices.

Classroom for 20 people.
Model of prototype block.

The ground floor of this model is an example of a classroom, while the second floor is an example of a three-office module.
Model of prototype block.

The circulation space attached to the module can be seen in this view. This space allows for vertical and horizontal circulation.
Public Gathering Spaces

Socrates, in search of knowledge, would spend his days in the Athenian agora, engaging in philosophical debates with the citizens. His knowledge came from the people around him. As the Greek city states moved from monarchy to democracy, the agora became more important in Greek cities than the acropolis (which had been the centre of monarchy). The agora was more than simply a market place/civic centre, it was the centre of the city, the centre of debates and exchanges of ideas.

The faculty building could use spaces with similar characteristics. Dalhousie University has precious few places like that now. The arrangement of the proposed blocks clustered into various departments can surround and frame a series of common spaces. These places could then become places of assembly.

In this project, there are five of these places and they are themed according to different types of communication. Each of these spaces is shaped and equipped according to the needs of the theme. They serve to encourage communication, discussion, debate, etc.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Hall</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>exhibition</td>
<td>Society Hall</td>
<td>recent work by faculty and students on exhibit by building's entrance</td>
</tr>
<tr>
<td>performance</td>
<td>Tower of Babel</td>
<td>atrium space shaped so it can be used as an informal performance space</td>
</tr>
<tr>
<td>assembly</td>
<td>General Hall</td>
<td>lobby for three auditoriums</td>
</tr>
<tr>
<td>conversation</td>
<td>Passage of Time</td>
<td>cafe and lounge</td>
</tr>
<tr>
<td>reading</td>
<td>Hall of Power</td>
<td>private and quiet work spaces</td>
</tr>
</tbody>
</table>

Table describing the qualities of the 5 different halls in the building.
Modules are grouped to form distinct blocks with each department housed in a separate block.

The halls between the blocks become places of assembly.
With each assembly space organized around different functions (themes), different parts of the building become activated depending on the time and the event(s) occurring.
informal seminars and meetings

independent film showing
The Faculty of Arts and Social Sciences, drawings and models
Model of the building and its surroundings.
Public Gathering Spaces, drawings and models
Exhibition - Display
Ground Floor
Model of the Place for Exhibition

The assembly spaces have a different, lighter construction than the department blocks.
Model of the Place for Exhibition

The exhibition hall is also the main entry to the building.
Performance
Ground Floor
Details

The nature of the modular blocks made it important to devise a construction system that could vary according to the needs of the building.

On the interiors of the blocks, the walls need to accommodate built-in furniture components such as desks and bookshelves. These components have to be easily removable and modifiable, without affecting the load-bearing structure nor the integrity of the building envelope.

The exterior walls of these blocks have the possibility of using a number of facing materials. The nature of the exterior walls changes as the conditions change; the walls facing Le Marchant Street have a different nature than the ones facing University Avenue, which in turn are different from the ones facing the interior courtyard, or the halls. The construction system allows for these walls to take on different characteristics.
Left: Early study of a typical wall section

Right: Same wall section separated to reveal three components of the construction system:
- the exterior envelope or facing (white glazed brick or stone)
- the structural elements (load-bearing CMU and precast concrete)
- the interior surfaces (stud wall, gypsum board and built-in furniture)
L.P. Marchant street facade

plan, section and elevation
scale - 1" : 16'-0"
elevation c-c

section d-d

University Avenue facade

plan, section and elevation
scale - 1" : 16'-0"
elevation e-e

section f-f

classroom

Internal yard facade

plan, section and elevation
scale - 1" : 16'-0"

plan (ground floor)
plan (ground floor)

interior court facade

scale - 1" : 16'-0"
SUMMARY

This project addressed several questions. All of these issues were prompted by the existing Dalhousie University buildings. The problems that these buildings are facing are the problems that this thesis attempted to address.

The initial question was concerned with the large and oppressive nature of the 1960's and 70's concrete buildings. These buildings attempted to create a strong identity for the expanding university, to show the optimism and growth potential of the university. However, large monolithic concrete forms with few openings can become oppressive very quickly. This thesis tried to see if breaking up one of these large institutional buildings into smaller components could make the building less overbearing. A cue was taken from the houses that held the arts departments. Each department was in a separate house. This gave each department a separate physical identity.

The thesis project tried to give each department a distinct identity. There was an attempt to provide a method for the users of this building to identify themselves with their particular segment of the building.

Another problem that many buildings at Dalhousie face is a lack of flexibility. They are not very suitable for the constantly changing programs of a university. As a result, hastily built partitions and walls begin to conflict with the original intent of the building. In the thesis project, the modular blocks were an attempt to deal with this problem while remaining small enough to have differentiated clusters. However, the factors that would give each departmental cluster its specific identity conflicted with the factors that would give the buildings flexibility. In the end the modular system of units made the different parts of the building look similar.
Since the clusters are modular and take on similar characteristics, diversity had to be found elsewhere. The five halls, with their distinct themes, forms and characteristics, helped to provide differentiation within the building. These halls become orienting devices with which one can situate oneself (or one's work space) within the larger building. It is imagined that the function of these halls would not change very much in the future. Thus, each one can be designed for specific demands. Additional work on this project could focus on this aspect, further defining the distinct characteristics of the halls and developing these spaces according to each communication theme.

There are two general approaches to designing for flexibility. One attempts to build generic, large-span, undifferentiated spaces that can be inhabited by almost any program (such as warehouses, factories or office buildings). The other builds for a very specific program and expresses the specific programmatic differences through the building. If there is a programmatic change, the relatively easy and light construction materials allow parts of the building to be modified, expanded or renovated (like a typical Halifax house). This project tried to create a building system that is situated somewhere in between, with spaces that can be changed with minimal modifications to the structure and envelope, yet with small enough building blocks that parts of the building maintain a distinct identity.

Although flexibility was a concern in the project, growth is an issue that could also be explored. It is quite possible that some departments will grow over time and some may even shrink. Certain building forms could acknowledge this possibility within the larger urban context of the university.
Notes


References

Books and Articles


Buildings

