685-001
Fall 2012

PRECEDENT ANALYSIS COURSE SPRING 2012

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RECONCILIATION OF MEGA SUNKEN VEHICULAR INFRASTRUCTURE WITH THE URBAN FABRIC: A PRECEDENT ANALYSIS

COURSE OBJECTTIVE:

This course's primary goal is to architecturally analyse 4 specific projects that try to reconcile fine textured urban fabric with large scale sunken vehicular infrastructure.

The knowledge gained will undoubtedly deepen the credibility of my eventual design proposal for the Decarie Expressway.

METHODOLOGY:

I will study each project using architectural precedent analysis techniques and compare them to each other and to the Decarie Expressway.

The analysis will include the following architectural analysis techniques:

1) Parti diagrams:

- What is the essence of each project?

2) Circulation:

- What does the interface between inter-modal transportation and the user look like and how does it function?

- What is the proportion of vehicular traffic vs. pedestrian traffic vs. public transportation? Compare the speed and scale of each transportation method (including the human body).

- What are the typical paths of the pedestrian, public transport services and the personal vehicle use?

- Compare the distances between common destinations each user of the space travels.

- Is there any evidence of congestion? How do they resolve the situation?

3) Natural light:

- How does each project deal with natural light?

- Is there any evidence that any certain user group is given more or less natural light?

4) Structure

5) Massing

6) Acoustics

7) History/cultural context

The main questions I will pose are as follows:

- What is the progression through time of the project and the site?

- Who designed the space?

- Why did they design the project the way they did?

8) Materials

- What kind of materials is used to provide acoustic protection?

- What kind of materials did they used to support the "caps" and overhangs?

- Do they incorporate natural elements?

9) Scale comparisons.

- Given that these projects often dwarf the human scale I will investigate if the projects attempt to reintroduce a finer grain to reconcile the two scales?

10) Spatial relationships such as described by Roger H. Clark and Michael Pause in their book *Precedents in Architecture: analytic diagrams, formative ideas, and partis*:

- Unit to whole:

"The unit to whole relationship is a formative idea which involves the concept of unit and the understanding that units can be related to other units in specific ways to create built form."

- Repetitive to Unique

"The formative idea of relating repetitive and unique elements entails the design of built form through the establishment of relationships between components which have multiple and singular manifestations."

- Additive and Subtractive:

"Additive and Subtractive are formative ideas which entail the design of buildings through the aggregation or removal of built form."

- Symmetry and Balance:

"Symmetry and balance are formative ideas which entail the design of buildings through the establishment of perceived and conceived equilibrium between components."

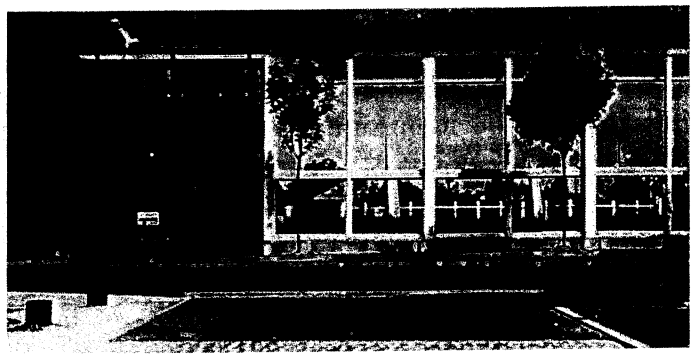
- Geometry and Grid:

"As a formative idea geometry entails the use of the tenets of both plane and solid geometry to determine built form."

- Configuration Patterns:

"As a formative idea, patterns of configuration describe the relative disposition of parts."

- Progressions:

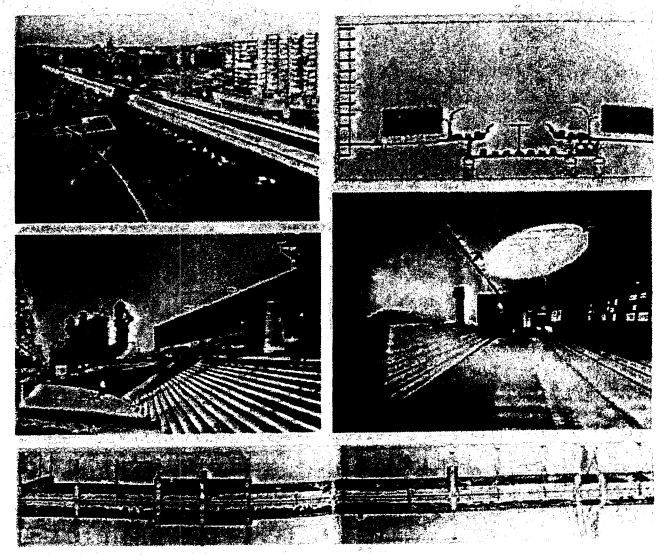


This is a 3.4km highway inserted into the Saint-Gratien community in the northwest part of Paris. This project is notable because of on one hand it has a traditional approach to highway noise control with its concrete sound barrier walls but it differs from typical interventions because in certain locations the wall is interrupted to allow a visual connection across the trench, uniting the community.

A section of the boulevard is semi-capped. This technique is typical in Paris and numerous examples of this type of intervention can be noted along La Bande Périphérique and the A86 (the two main ring highways around Paris). At first glance, this approach selectively diminishes the noise from the traffic to one side and allows all users to share the natural light. These ideas can be implemented into the Decarie's design (scale roughly ½ of the Decarie).

Its generous and strategic use of vegetation is also something that should be noted.

3) Gran Via de les Corts Catalanes by Arriola & Fiol arquitectes.



expressway and they built several buildings, public squares and parks on top. This project was intended to restore the continuity of Montreal's downtown and bridge the following areas: the existing downtown business district centered around Place Ville-Marie (northwest), the Saint Laurent Boulevard/Sainte Catherine Street entertainment district and Chinatown (northeast), the historic Old Montreal district (southeast) and the Cité Multimedia high-tech development district (southwest).
This project specifically deals with the structural challenges of bridging sunken expressways and it also is a good example of the type of positive catalytic effect poignant utilization of the space above these thoroughfares can have on a city.

DELIVERABLES

1) Plan, section and elevation of each project.

2) Diagrams of the relationships describe in the methodology section above.

3) Text describing the results of the analysis.

TIME ALLOCATED

10-15 hours a week for 4months (May 1rst, 2012 to August 31rst, 2012). One project per month (40-60 hours per project).