

APPLICATION AND TESTING OF MODERN CRITICAL
THEORY OF ARCHITECTURE AT THE SEDGEWICK LIBRARY

by

THOMAS MARTINSON

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Department of Architecture

The University of British Columbia
1956 Main Mall
Vancouver, Canada
V6T 1Y3

Date October 1, 1983

ABSTRACT

The thesis deals with the application and testing of modern critical theory of architecture at the Sedgewick Library.

Through the works of John Ruskin, Ludwig Mies van der Rohe and Robert Venturi, selected as prototypes of modern architectural thought from the extensive literature their formula or code for good architecture was determined.

These formulas or codes were then applied to an assessment of the design of the Sedgewick Library, an award winning design representative of the best architectural work in Canada during the contemporary architectural period.

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INTRODUCTION

This essay attempts to test, at the Sedgewick Library Building, three theories of architecture propounded during the last one hundred years or so. These theories were formulated by John Ruskin, Ludwig Mies van der Rohe and Robert Venturi.

Architecture is defined by Walter Gropius as the "crystalline expression of man's noblest thoughts, his ardour, his humanity, his faith, his religion."¹ In this context, many theories have been presented indicating a formula that produces "good architecture".

From the extensive literature I have investigated a score of authors from different periods. Quotes of each critic's views are given in the text with footnotes. All these architects and architectural critics have given us a rule as to what they considered

¹ Walter Gropius, "New Ideas on Architecture", An exhibition for unknown architects, Berlin: Arbeitsrat, 1919.

should produce "good architecture".

I have selected three influential theorists whose respective philosophies have stood out at three different periods during the last century and have summed up large areas of thinking associated with these periods. I am attempting to examine the usefulness of their respective theories in our age as a guide for contemporary designers and critics of architecture.

John Ruskin is selected as covering the pre-modern architectural period, Ludwig Mies van der Rohe as the most influential modern architect and Robert Venturi as the post-modern period's foremost spokesman. I am going to test each of their theories by attempting to use their respective criteria in analyzing the architectural intentions and the qualitative results of a particular building.

I have selected the Sedgewick Library in the

University of British Columbia (finished in 1970; a design that has received several awards), to test the validity of the formulas for "good architecture" suggested by Ruskin, Mies and Venturi.

A full critique of the building form each of the three points of view is not intended - The critiques that do occur are given only as examples of the approach that each theory instigates.

Each has induced me to talk about particular aspects of the work of architecture under discussion. It was especially interesting when each of the theories could be applied to the discussion of the same aspect in the building.

The purpose of the exercise is to test (unscientifically) the relative usefulness of each theory when applied to a contemporary issue.

In order to permit the reader to familiarize himself with the Sedgewick Library Building, a history

of its planning and cosntruction is presented in
Appendix No.1.

PART I JOHN RUSKIN PRE-MODERN ARCHITECTURE

Summary of the principle theory of Ruskin

Ruskin's formula for good architecture is contained in his book, *The Seven Lamps of Architecture*.² Good architecture is enlightened with seven precepts which he refers to metaphorically as "lamps".³ His lamps are the lamps of Sacrifice, Truth, Power, Beauty, Life, Memory and Obedience.

Ruskin was concerned about the advance of modern technology. He believed that the changes that it was bringing about were destroying the essential character of architecture.

A short outline of his lamps is given below:

² John Ruskin, *The Seven Lamps of Architecture*
2nd. edition. (London: George Allen, 1905)

³ Ibid.; p. 1.

The lamp of sacrifice claims: "that good architecture is the art which so disposes and adorns an edifice, that the sight of it may contribute to man's mental health, power and pleasure."⁴ Good architecture must concern itself with those characteristics of a building which are above and beyond its common use.

The lamp of truth advocates honesty in architecture: "that the suggested structure in a building is in fact, the true one." The lamp of power says: "that good architecture should be endowed with the severe and mysterious majesty or power, reflected in its size and shape." The lamp of beauty suggests: "that architecture derives chiefly from the imitation of natural forms." The lamp of life tells us: "that architecture must reflect man's thoughts and reveal the touch of his hand."

⁴ Ibid.; p. 15.

The lamp of memory says: "that architecture must render the architecture of the day historical."

Finally the lamp of obedience says: that good architecture is one that is subjected to a formula.

Chapter 1 The Lamp of Sacrifice

Statement of the formula parameter for criticism

Ruskin's first rule is contained in the Lamp of Sacrifice. Architecture "is the art which so disposes and adorns an edifice, that the sight of it may contribute to man's mental health, power and pleasure".⁵ Ruskin distinguishes between architecture and building. Not all buildings are architecture. He writes:

"...if to the stone facing of a building it be added an unnecessary feature, such as a cable moulding, that is architecture. Or if projecting masses can be carved into rounded courses, which are useless, and if the headings of the intervals be arched and trefoiled, which is useless, that is architecture."⁶

He makes clear that architecture concerns itself only with those characteristics of an edifice which

⁵ Ibid., p.13.

⁶ Ibid., p.15.

are above and beyond its common use. To best define the spirit of sacrifice, he says:

"...that it prompts us to the offering of precious things merely because they are useful or necessary."⁷

There are two conditions that enforce the spirit of sacrifice: the first is that we should always do our best to the point of utmost effort, and the second is that an increase in apparent labour leads to an increase in beauty of the building.⁸

Critique of Sedgewick from Ruskin's point of view

The decision to preserve the 40-year old pin oaks in their original positions and to design the new building around them seems to be a good example of Ruskin's lamp of sacrifice rule being applied by

⁷ Ibid., p.18.

⁸ Ibid., p.39.

the designers and clients. For the sake of preservation of eight trees and the environment in which they stood a great deal of extra effort, ingenuity and expense was resorted to.

The architecture of the Sedgewick Library is so disposed as to respect the traditional appearance of the Main Mall and in particular the preservation of the oaks. It conforms to the observations made by the Senate Liaison Committee on Planning Permanent Buildings headed by Dr. H. Peter Oberlander, then director of the School of Community and Regional Planning. The wording of the committee's report was:

"...the prevailing academic environment and landscape of the central part of the campus has usually been identified with the very essence of the University's character. The existing form and quality should be preserved and enhanced. The existing trees are particularly responsible for the character and setting of the space in front of the Main Library and every effort must be made to maintain the trees, the substantial grass

area and a number of other small landscape features."⁹

In Ruskin's terms Sedgewick's architecture attempts to contribute to man's mental health and pleasure. There is no immediate advantage to the function of the building in adapting to the existing environment, but as a reporter writing on the plans for the building explains:

"...excavation and landscaping costs will be higher than normal, but if value were given to maintaining open spaces on the campus under the present student population density, the extra cost would be a small price to pay."¹⁰

This is the spirit of sacrifice that Ruskin talks about as a necessary ingredient for good architecture. Indeed we are impressed by the effort taken to protect the earth around the roots of the oaks for no other purpose than to preserve something as ephemeral and even spiritual as an environmental "character".

⁹ J.A.Banham, (editor), "Board Approves New Library Plan and the reason behind new Sedgewick Library", U.B.C. Reports, Vol.15, No.18, Vancouver:U.B.C. Oct. 1969 p.2.

¹⁰ Ibid., p.4.

Another example where the extra effort has resulted in an architecture which is more successful is the use of mirrors on the skylight cones.

In figures 1 and 2, one can see the mirrors reflecting interesting images of the surrounding landscape and sky in a collage-like manner. They become objets d'art that are attractive to pass and animate the walkway in a manner that would not have been possible had the concrete cones remained as unadorned concrete. They are the only visible symbol marking the existence of the library.¹¹

The cones are not outcroppings of formed steel from a building, but architectural elements which contribute to the observer's pleasure.

We should also mention the planting boxes as an extra put in by the architects. These as shown in

¹¹ From an interview with Randle Iredale held January 30th., 1983, Vancouver, B.C.

figure 13, add richness to the design.

There are, on the other hand, instances where "sacrifice" was not made, such as the bare interior where the designers and, to some extent, the client insisted on spartan finishing.

The entrances on the north and south side of the library particularly were designed without making any "sacrifice" at all. On the contrary they were left bare on purpose to induce the client to complete the construction of the side extensions of the library.

A curious instance of deliberate withholding of extra effort for an ulterior motive. The Ruskinian ethic would have required that a satisfactory finishing be given to all work even if it be considered "temporary".

Chapter 2 The Lamp of Truth

Statement of the code parameter for criticism

The Lamp of Truth is Ruskin's second rule for good architecture. Architecture of pretense, concealment and deceit is wrong.

Ruskin advocates honest architecture. He claims that

"the spirit of truth is broken in architecture when: (1) The structure or support is suggested in a building which is not the true one; (2) The treatment of surfaces with the intention to conceal the real material; and (3) the use of machine made ornaments of any kind."¹²

With respect to structural truth, Ruskin adds,

"that only stone, brick or wood is to be used. Iron (especially cast-iron) is

¹² John Ruskin, The Seven Lamps of Architecture, 2nd. edition, (London: George Allen, 1905) p.62.

not permitted, except as a structural aid used as a cement."¹³

He does permit the covering of the structural elements as he says, "the bones need not be shown."¹⁴

Surface deceits are defined as

"the inducement of the supposition of some form of material which does not exist, such as the painting of wood to look as if it were marble. However, if painting does not represent or assert any material what-so-ever such as the frescoes and paintings of the interior, it does not constitute a violation of the rule." ¹⁵

He also permits covering of brick by marble or other precious materials as long as it is clear that these materials are clearly understood to be surface treatments and do not pretend to be solid and structural.

The last deceit deals with the substitution of machine work for that of the hand and he calls it "operative deceit".¹⁶ The reason behind this rule

¹³ Ibid., p.70-72

¹⁴ Ibid., p.75

¹⁵ Ibid., p.88

¹⁶ Ibid., p.114

is that in Ruskin's view, machine work is bad and dishonest. Machine made ornaments, says Ruskin are "like false jewels worn by a woman, and they are an inexcusable lie."¹⁷

Critique of Sedgewick from Ruskin's point of view

The truth in the structure

Randle Iredale, designer of the Sedgewick Library, says that the design team was "committed to honesty."¹⁸ At least one expression of this honesty appears in the boldly expressed columns on the facade which are designed to show they are supporting the horizontal structure as opposed to the tree-root caissons between which the floor structure might seem to span. To further reduce the appearance of the horizontal structure resting on the

¹⁷ Ibid., p.118

¹⁸ From an interview with Iredale held on January 30, 1983 in Vancouver, B.C.

caissons, the concrete planting box "eyebrows" which cantilever off the beam are stopped short of the brick cylinders.

Incidentally, in Ruskinian terms a dilemma appears in the very use of reinforced concrete. Although the use of concrete was a rarity in Ruskin's time and therefore was not mentioned by him, his condemnation of the use of cast iron in architecture may well be taken as a condemnation of all similarly cast materials which in Ruskin's eyes can only be deceitful imitation of the traditional structurally obvious materials such as masonry and wood.

If we compare the Vancouver Art Gallery (figure 5) to the facade of Sedgewick we note that the Vancouver Art gallery building with its structural elements made of stone, shows its supporting columns of dimensions which convey to the observer an unequivocal message of being supporting elements proportionate to the size of the horizontal elements they support.

At Sedgewick on the other hand, the cast-concrete columns are very slender in appearance, since the nature of the material does not require them to have large dimensions. Functionally, their dimensions are sufficient, but visually, they are too weak compared to the dimensions of the horizontal elements they support.

This need for clarification is evidenced by Sedgewick's design, as noted earlier the brick caissons are articulated in a manner to ensure that they are not thought of as being supporting the lintel and horizontal structure.

When we turn to the inside of the library, we note as shown in figure 8 that the true structure can be observed everywhere. In fact, Ruskin's idea of architectural truth is taken to the extreme of exposing all the servicing. The lighting, the air conditioning, the sprinklers and other mechanical elements are shown.

While ducted and piped services of this kind were very rare -if they existed at all- in Ruskin's time, he is silent about this kind of "truth". Yet one cannot help assuming that Ruskin would not have condoned a chimney disguised as perhaps a turret or a cast iron drain pipe treated as an architectural molding. However, he would have expected that such elements be treated with ornament and not left in a raw, mechanical state unhumanized by the art of craftsmanship.

The truth of surfaces

With respect to Ruskin's rule applying to the treatment of surfaces with the intention to conceal the real material, we might note the brick covering of the steel drums which enclose the tree roots.

Brick is generally used as a supporting material. In fact so strong is the association of brick to being considered a structural material that its use

in this case leadsthe viewer to believe that it is one. Yet it is used as a surfacing material only as shown in figure 7 and 43.

Since Ruskin accepts the use of brick as a veneer¹⁹ it ought not be necessary to pursue this argument further in this context. Yet, it is interesting that Iredale denies that the brick casing is simply veneer and argues that it has an honesty expressed functional purpose. He states "that the brick is there to satisfy a functional need."²⁰ The tree roots must be kept cool, and thus air space was required between the drum and the interior of the library.

Figure 43 demonstrates how carefully the truthful function of the brick is expressed in the detailing which clearly exposes to view the relationships of

¹⁹ John Ruskin, The Seven Lamps of Architecture, 2nd edition (London: George Allen, 1905) p.74.

²⁰ From an interview with Randle Iredale held on January 30, 1983 in Vancouver, B.C.

the brick skin to the inner steel drum.

Ruskin resolves the problem of veneers by indicating that if the observer clearly knows that deceit is not intended, then it is permitted. For example:

"one knows a gilded capital
is not solid gold;
one knows that carpeting
is only skin deep;
one knows that marble slabs
are applied to and not sup-
porting a structural wall."²¹

It is the inducement of the supposition of some material which does not exist; for example, painting plaster to make it look like marble or carving stucco to make it look like stone, which Ruskin forbids.

Thus the mirrored cones projecting onto the Main Mall, can also be excused from committing a surface deceit. Presumably the same argument can be held

²¹ John Ruskin, The Seven Lamps of Architecture, 2nd. edition (London: George Allen, 1905) p. 76.

for the carpeting on the wall, shown in figure 6, as well as for the painted plaster on the concrete walls.

The use of machine made ornaments

With respect to machine made ornament an anathema of Ruskin's, two examples to be found in Sedgewick might be cited: the wall graphics (figure 4) and the lettering applied to the glass.(figure 3)

Besides the absence of the evidence of man's hand, what bothered Ruskin about machine-made ornament was its unnatural repetitiveness and what he felt (especially in cast iron ornament) was the inability of the machine to bring the art of the ornament to the point of sensitive refinement.

Probably the slickness of the machine-like execution of the Sedgewick wall graphic would have appear-

ed faulty to Ruskin, but the fact of its uniqueness and its carefully designed relation to the walls on which it appears aside from giving the dignity and distinction demanded by Ruskin, certainly speaks clearly of what it is: paint on a flat surface. Its avoidance of any trompe l'oeil imitation of carved or applied elements can be attributed to a by now probably unconscious compulsion on the part of the artist to comply with the dictum of truth.

The main purpose of the lettering on the glass is to provide an entertaining means of creating visual barriers so that the building users won't bump into the glass, but it also becomes a form of ornamentation, machine-made and intellectually as well as visually amusing. It may be worth noting here that Ruskin forbade all use of lettering in architecture.²² He evidently did not notice or

22

Ibid., p.86.

did not appreciate the refinements of lettering in Roman structures or the use of it in Islamic ornament.

Finally, under the argument of the Lamp of Truth one must mention the structural elements which by remaining exposed on the interior candidly inform the viewer of the way the building is put together and how its structural system functions. The relation of this exposure of the skeleton to the Gothic architecture that Ruskin so admired needs no elaboration. Ruskin might have been impressed with.

Chapter 3 The Lamp of Power

Statement of the code parameter for criticism

Ruskin's third rule is expressed in the Lamp of Power. He says that,

"good architecture must be endowed by a severe and mysterious majesty, which we remember with an undiminished awe, like that felt at the presence and operation of some great spiritual power." 23

This power is expressed in several ways, the first of which is "size".²⁴ The building -adds Ruskin- should be located on a high elevation and it should be possible to be seen at once in its entirety. Secondly to give the appearance of dominion, its length, width and height should be almost similar, closely resembling a cube. But more importantly, he suggests that,

23 Ibid. p. 126.

24 Ibid. p. 131.

"the wall is eminently the principle of power, as evidenced in Egyptian and Romanesque architecture."²⁵

Ruskin says that when we look at a building,

"the eye will be drawn to its terminal lines and these should be removed as far as possible. Thus the square and the cylindrical column, are the elements of utmost power in all architectural arrangements." ²⁶

Ruskin mentions the Doge's Palace with its large surface and combined with arcades as a model of perfect power. No building can be truly powerful, he adds, unless it has mighty, vigorous and deep shadows interplaying with its surface.

Critique of Sedgewick from Ruskin's point of view

Figure 12 shows a bird's-eye view of the library,

²⁵ Ibid., p. 139

²⁶ Ibid., p. 142

which was built not on a high elevation but in a depression of a park and under a mall. The designer's rule was precisely the opposite of the lamp of power, says Iredale. "We wanted a minimalist building, a building that should disappear, one that is buried to the point of having the cones as the only indicators or symbolist elements of the library's location."²⁷

Obviously a building that is intended to be subterranean would deny intention of overwhelming the viewer with its impact. However aspects of the visible details of the composition express quite boldly the Ruskinian notion of power in architecture.

We observe an interplay of deep and vigorous shadows produced by the combination of the masses of the caissons and the floor to ceiling glass fenestra-

²⁷ From an interview with Randle Iredale held January 30, 1983 in Vancouver, B.C.

tion and the overhang of the planters.(figure 9)
The giant cylindrical caissons appear to be quixotical creations resembling gargantuan flower pots, the very bigness of scale which Ruskin cites as one of the ways to achieve architectural power.
(figure 9)

It is indeed interesting that the elements of Ruskin's definition of power can be discovered also on the west side elevation of the library. Again an interplay of shadows and masses is apparent, reinforced by the thrust into space of the sharpe edged planters. The latter ones resemble huge razor-blades cutting space. It is the combination of the shape and the large size of these elements that convey the effect of power almost monumentally. (figure 10)

This notion of power as an ingredient for good architecture has gone through ups and downs in history. Largeness is evidenced as one of the primary objectives of architectural design as far back as the temples of antiquity and the Gothic cathedrals.

In the 20th. century the architectural design directed by authoritarian regimes has espoused Ruskin's code, where largeness is equated to goodness in architecture.

There are however opposing views, which long for delicacy even fragility and low profile as aesthetic assets for good architecture after World War II peaking in 1968 with the movement against pomposeness and concerns with preserving a humane environment.

In spite of the examples mentioned above which indicate the "power" of certain details of the building, its overall impact is humble rather than dominating.

It is built in a depression of the landscape. Its contour does not stand out but rather tends to disappear underground. Iredale says "that there has in fact been a conscious attempt to totally disguise the

bulk of the building."²⁸ Figure 11 shows the contrast between the aura of dominion emanating from the design of the Main Library building compared to the low profiled, accommodating and retreating character of Sedgewick. Ruskin's code is contradicted, in order to fulfill the demands of another philosophy of life.

The objective of the design was to preserve and enhance the existing environment; a low profile edifice was the most appropriate answer. Contradicting Ruskin, the contemporary critic would argue the virtue of the design precisely because of its restraint in terms of Ruskinian "power".

Douglas Shadbolt commented when awarding the 1970 Best Design Award to Sedgewick:

²⁸ From an interview held on January 30, 1983 in Vancouver, B.C.

"... the library does not interfere with existing buildings or surroundings and yet improves the function of each, it is an example of architectural humility." 29

29

"1970 Best Design Award", Canadian Architecture Yearbook, Don Mills: Southam, 1971, p. 25. Professor Douglas Shadbolt was one of the three panel judges.

Chapter 4 The Lamp of Beauty

Statement of code parameter for criticism

The fourth rule is stated in the Lamp of Beauty.
Beauty in architecture, says Ruskin, derives chiefly

"from the imitation of
natural forms. Imitation
of nature is the only
source of beauty and thus
of good architecture." 30

The adaptation of forms that are commonest in
nature is what good architecture must strive for,
according to Ruskin. For instance, the pointed arch
is beautiful because, it imitates the termination of
a typical leaf. All good architecture

"is founded on the laws
of natural forms, and
those forms which are
most frequent are most
natural." 31

Thus it follows that in this resemblance of natural

30 John Ruskin, The Seven Lamps of Architecture,
2nd edition. (London: George Allen, 1905) p. 190.

31 Ibid., p.221

forms good architectural forms will not be straight lines which are rarely seen in nature.

"Organic forms are the best forms, abstract geometric forms should be avoided." 32

Critique of Sedgewick from Ruskin's point of view

The architecture of Sedgewick Library Building has obviously been consciously adapted to the sloping park (created by the architects who reversed the original land slope up to the mall) that exists in the academic quadrangle bordered by the Main Library, Buchanan Building and the Mathematics Complex. Figure 12 shows bird's-eye views of Sedgewick where the building is carefully inserted into naturalistic landscape forms.

Furthermore, the cantilevered structural elements

become planters. Thus the architecture clothes itself with the landscape. The shape of the planters with their sharp ending edges, attempts to reduce to the minimum the amount of man made construction shown.

Figure 13^A reveals an attempt in the architecture to respond to and integrate with the artificial and pseudo-natural forms of the west and east courts and their landscaping. Note how the facade is broken up to adapt to the contours of the grade facing the Mathematics Building.

However, the architectural forms at Sedgewick are derived from the machine-aesthetic and not natural forms, says Randle Iredale.³³ The building is integrated into the natural landscape to disguise its bulk. Indeed the building has been given the contours

³³ From an interview with Iredale held on January 30, 1983 in Vancouver, B.C.

of a terraced hill and has been so laden with earth and plant material that the links between the building and the landscape are really blurred.(figure 13)

Although the effort to adapt an "unnatural" straightlined building to a landscape may not be the same as imitating or learning directly from natural forms. Yet, adaptation, when it responds to the pressures of nature and allows nature to be determinant in the process, must lead to forms which are enhanced by this determination. Frank Lloyd Wright's words come to mind: "good architecture is linked to nature."³⁴

The aesthetic philosophy of deliberate contrast between the hard structural lines of Sedgewick and the naturalistic landscape which unfolds it, is one which Ruskin does not consider. His disdain of the

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F.L.Wright, "Organic Architecture," F. Gutheim, (editor), On Architecture, Selected Writings, (New York: Grouet and Dunlop, 1941) p. 177-181

machine together with machine-like or "machined" forms prevented him from appreciating the machine as a partner of nature. Sedgewick's exploitation of this partnership thus expands the relationship between architecture and nature beyond Ruskin's comprehension.

Observing the shape of the building in figure 14. One notes how the steps seem to follow the natural contours on the hill as if nature had channeled them out of the earth. On the other hand we find on figure 14, that the horizontal planters are of an unyielding man made shape. The form of the planters is divorced from natural forms, yet the shrubs that they house, confuse it with the landscape. There is an attempt to soften the impact of the hard geometrical form. There is a clash here; the hard lines of the horizontal planters are mixed with natural elements.

We know that the designers were not interested in imitating nature, per se, yet consciously or not

they have created a structure which resembles a cave. For the observer this association of Sedgewick with a cave-like structure is unavoidable.

Indeed, its cave-like appearance may be said to impart certain romantic character to the architecture which is intriguing to the viewer.

Ruskin advises designers to learn from natural forms. Perhaps he is telling us that for architecture to be appreciated it needs to be understood, and by associating man-made forms with familiar aspects of nature, architecture becomes comprehensible to the ordinary man.

Although the detail of the column, the beam and the T-beams do not imitate the forms of a leaf, or an oak tree. The post and lintel structure seen in figure 15 may not be a form commonly found in nature, yet associations with natural forms become inevitable for the observer, who is familiar with them. At the most obvious level, one could argue that the stout

columns recall tree trunks (figure 15) and for one familiar with the way in which reinforced concrete works, a sense of the branch-like forms of the hidden steel reinforcing bars, even in the abstraction of the imagination, brings with it some of the aesthetic tension and drama that are expressed in the tensible action of the fibers of a tree. (figure 15)

Another instance of an architectural form reflecting a natural one can be seen in figure 16, where the iron chain which directs rain water into a basin appears as a frozen image of the dropping water so that even on a day with sunshine, the iron chain reminds us of the dynamics of water falling into a pond. Whether intended by the architects or not, the aesthetic success of the detail seems to prove Ruskin's point.

Some may argue however, that this effort of adaptation and imitation with the intention of preserving the existing campus landscaping scheme is not

natural at all. What is natural one may ask, in the location of the pin oaks which have been planted by man in ageometrical pattern forty years ago, replacing the natural growth of cedar and fir trees on the site?

The use of plant material in geometrical and architectonic patterns, however, has been a factor in site design since ancient times. Ruskin does not deal with this issue, but we have to point out and ask if there is not another rule which architects (including Rhone and Iredale) have responded to which may be equally important, but a variation on Ruskin's theme; namely, the imitation and preservation of man-made landscapes. So that imitation of that which imitates nature also becomes a worthwhile pursuit. (figure 17)

Chapter 5 The Lamp of Life

Statement of the code parameter for criticism

Ruskin's fifth rule is expressed in the chapter entitled The Lamp of Life.³⁴ Good architecture for him should reflect man's thoughts and reveal the touch of his hand. According to Ruskin, machine made products cannot do this. He advocates hand-craftsmanship as a true reflection of life.

All successful architecture must have fullness of life.

"As sea sands are made beautiful by their bearing the seal of the motion of the waters, so good architecture becomes such in proportion to the amount of energy of that mind of man which has visibly been upon it."³⁶

³⁴ John Ruskin, The Seven Lamps of Architecture, 2nd edition. (London: George Allen, 1905) p. 270.

³⁵ Ibid., p.271.

Such are the words of Ruskin. He also concludes that good architecture will always be a reflection of use.

Critique of Sedgewick from Ruskin's point of view

Observing the Sedgewick Library, we detect a lack of concern for handicraft which could have made Ruskin cringe. Figure 23 shows the pre-cast, factory made elements of the library's structure. Randle Iredale says that "the design team was not at all preoccupied with handicraftsmanship."³⁷

The machine aesthetic of the design can be noted throughout the library. Even in the elements which in fact required extensive hand work, such as forming the main stairway, the workman's hand is not evident.

³⁷ From an interview with R. Iredale held January 30, 1983 in Vancouver, B.C.

The result looks like a form extruded from a machine. (figure 18). Here hand work and craftsmanship was used extensively to produce the reverse effect. (figures 18 and 19)

Observing the enclosed stairway shown in figure 19 we detect a design that attempts to prevent us from hearing the sound of the hammer of the craftsmen who toiled to build the intricate shape of the stairway, contradicting Ruskin, who praised the shape of the sea sands for bearing the imprint of the sound of the waves.

Since in concrete design it is in the creation of the form work that the hand of the builder can be expressed one wonders if the design could not call for and elicit this expression rather than to strive for a "machined" character in the finished product. Whether or not the result might seem superior would depend on the value that the user placed on Ruskin's Lamp of Life.

An example where Ruskinian hand workmanship can be found is the painted graphic shown in figure 4. This painted graphic has been created according to all the rules of the Lamp of Life. The graphic is unique, it has been designed for this specific location, it is the expression of a human being, it has been painted by hand and it is inspired by nature. It is certainly not an industrial product such as a wall paper or a purely machine made ornament and thus seems to respond meticulously to Ruskin's code. But much of the ornament is characterized by hard edged lines probably painted with the aid of straight edges and tape, reflecting the machine aesthetic, an art made by machines, rather than humans, an actual contradiction of Ruskin's code. The hand of the workman is hardly evident. But would the result have been as effective if it had been painted free-hand and revealed the irregularities and asymmetries so admired by Ruskin and which he observed with pleasure in the carving of a Byzantine capitol?

Finally, we turn to the extensive use of the brick work in the library. The purpose of the use of brick was according to Randle Iredale "to give human feel as opposed to the machine feel."³⁸

From time immemorial the brick wall has been associated with hand work. Indeed, the bricklayer's hand ought to be revealed in every joint where mortar is applied. The fact that the bricks are machine made might be irrelevant here. What we know is that the bricks were laid one by one, carefully conforming to the curvature of the perimeter of the caissons as shown in figure 20.

We could expect such a process to result in perfect compliance with the Lamp of Life rule. The brick work is hand assembled specifically for this location and placed without the aid of machines of any kind.

³⁸ From an interview with R. Iredale held January 30, 1983, Vancouver, B.C.

Yet what we see is the regularity of what could have been a machine made brick wall. The bricklayer's touch is not visible at all. In spite of the use of a material inherently associated with handwork, the "mechanical" perfection of the bricklayer's technique obliterates the impression of a human hand at work.

The use of handwork does not seem to be enough, not even the use of hand placed brick is sufficient. What seems to be lacking is the introduction of conscious irregularity in the handwork. Wright talks about training his workmen to produce the "designed" irregularities which he sought for in his masonry. It is a curious dilemma: to give the impression of true handwork we must exaggerate, even falsify in order to express the beauty of handwork.

We have come a full circle in this argument. If handwork needs to be falsified to appear as such, are we not in fact being asked by Ruskin to disobey his code in the Lamp of Truth?

Chapter 6 The Lamp of Memory

Statement of the code parameter for criticism

The sixth rule is the Lamp of Memory. Ruskin claims that good architecture has two duties:

"first, to render the architecture of the day historical, and the second, to preserve as the most precious of inheritance, that of past ages." 39

It is thus in becoming memorable that a true perfection is attained by civil and domestic buildings. Ruskin is advocating building for centuries of use, not mere decades. He would like to see in good architecture, the entire history of the building indicated or represented in its form. He wishes to discourage changes which completely wipe out, forms and alterations previously made, for he believes that future users will find pleasure and beauty in the signs left by previous users.

³⁹ John Ruskin, The Seven Lamps of Architecture, 2nd edition. (London: George Allen, 1905) p.325.

It is said that to understand the present, we have to look to the past. It is by the knowledge of the past that we can project ourselves to the future. If it is denied to the human race to discover its primary origin and its ultimate destiny, at least by studying the legacy of our ancestors we as a people obtain some comfort, security, and begin to understand who we are and where we have come from.

Architecture as the expression of man's thoughts, his ardour, his humanity, his faith and his religion can play an important role in the preservation of memories. Because of architecture's character of permanence, it is extremely suitable to remain as a document of past ages.

The importance of architecture as a preserver of memories is evidenced by the resurgence of the conservationist movement. It is the desire of the movement to prevent the disappearance of the past.

If architecture is to perform its role, it must

-as Ruskin says- be constructed to last a long time, and it must be built firmly enough and with enough conviction and reflection of the builder to leave a long record in history for the enrichment of posterity.

Critique of Sedgewick from Ruskin's point of view

The effort made in the design of Sedgewick to preserve memories of the past such as that of the path of the Main Mall and the continuity of the rows of trees that were planted to line the original roadway designed in 1914 seems to admit to the importance of Ruskin's Lamp of Memory.

In their effort to ensure that the structure should remain as a legacy for the future, and not be destroyed by the advent of change the architects have designed a building with the consciousness that,

"a library is a dynamic

organization. Its requirements vary from year to year, with new educational approaches and new technologies and the library changes to meet the new needs. Space that may be used for various purposes is superior to space that by its nature is permanently dedicated to one function." 40

This implies a design that was meant to outlast the present, but permitting the accommodation of needs of a distant future.

The wish to create architectural forms which will outlast a variety of changing functions may be said to have a close affinity with the Lamp of Memory. The planning concept such as that in Sedgewick which allows for changes to be made to the partitioning without having to remove or alter the original structure does after all permit the accommodation of the changing needs of countless generations. This

40 User's Committee, The fundamentals of the Sedgewick Library, Vancouver: University of British Columbia 1968, p. 4.

concept is the very intention of the design. Says)

Randle Iredale:

"We wanted the interior
to have no fixed character,
to be multifunctional.
We were thinking of the
future; ...a hundred years
from now, when reading
from books will be outdated."⁴¹

However, if books are to disappear, will the
memory of the books linger at Sedgewick? If the
architecture should permit all traces of books to
disappear, then Ruskin's rule of memory will have
been flouted.

⁴¹ From an interview with Randle Iredale held January 30,
1983, Vancouver, B.C.

Chapter 7 The Lamp of Obedience

Statement of the code parameter for criticism

The Lamp of Obedience is the last rule of Ruskin for good architecture.

Ruskin says,

"good architecture is one that is subjected to a code of rules. Almost any code, as long as it is a code and as long as it can be obeyed."⁴²

Critique of Sedgewick from Ruskin's point of view

We have to determine if Sedgewick was or was not built according to a code, any code.

⁴² John Ruskin, The Seven Lamps of Architecture, 2nd edition. (London: George Allen, 1905) p.361

Randle Iredale, designer of the Sedgewick

Library indicates that:

"a code was followed:
that of the modern
movement often refer-
red to as modernist
these days, using the
form follows function
principle in its
many manifestations.
A code that was more⁴³
complex than Mies'."

We know then that the philosophy of the
modernist movement was followed and thus the build-
ing was designed according to a code as Ruskin
demands. In Part II we will be defining aspects
of the modern code in detail.

⁴³ From an interview with R. Iredale held January 30,
1983, Vancouver, B.C.

PART II LUDWIG MIES VAN DER ROHE MODERN ARCHITECTURE

Summary of principle theories of Mies van der Rohe

Mies' formula for good architecture is clarity and simplicity in architecture: less is more.

Mies was a revolutionary architect; he established the vocabulary of modern architectural language, more than any other representative of the modern movement.

The aesthetic code of Mies' good architecture is contained in a number of articles that he wrote during his life time. This study will refer to six of his most important writings. In chronological order they are: "Aphorisms on Architecture and Form" 1923, "The Office Building" 1923, "The Industrialization of Building Methods" 1924, "A letter on Form in Architecture" 1927, "The New Era" 1930, and "Address to the Illinois Institute of

Technology" 1950.⁴⁴

Mies was not a man of many words; his writings and speeches are short. To complement them, I will be drawing conclusions about his theories which he preached and practised, by observing and citing his works as well. Mies eliminates all the old constraints and takes a new approach to architecture. A short outline on each topic is given below.

In "Aphorisms on Architecture and Form", he tells us that in good architecture, "form follows function". He rejects all prior doctrine and formalism. In "The Office Building" article, he proposes a "skin and bones" architecture. In the article "Industrialization of Building Methods", he says that our building methods must be industrialized, that hand work should be eliminated and that the search for a new building material is a must.

In his address to the Illinois Institute of Technology he indicates that architecture and technology are closely related. In good architecture, one should

be the expression of the other. In "A letter on Form in Architecture", he claims that in good architecture, less is more. Good architecture obtains maximum effect with minimum means.

Finally in "The New Era", he advocates that good architecture is one that creates an order out of the confusion of our time; a perfect architectural solution which is "universal". This concept is in apparent contradiction with the "form follows function" statement. Mies solves this dilemma by giving a special interpretation to form follows function, as we will see later, and we will attempt to show that he was truly an extreme formalist as observed in his work.

Chapter 8 Form follows Function

Statement of code parameter for criticism

The first concise statement of principles or rules to produce good architecture is contained in the architectural publication "G", Number 1.

To Mies, good architecture must,

"reject all aesthetic speculation, all doctrine, all formalism. Architecture is the will of an epoch translated into space; living, changing, new. Create form out of the nature of our tasks with the methods of our time. We refuse to recognize problems of form, but only problems of building. Form is not the aim of our work, but only the result. Form as an aim is formalism; and that we reject. Essentially our task is to free the practice of building from the control of aesthetic speculators and restore it to what it should exclusively be: building." 45

⁴⁵ Ludwig Mies van der Rohe, "Aphorism on Architecture and Form", G Number 1 (January 1922) pp.122-124

The essence of his statement is that "form follows function". He is setting a new order out of the confusion of our time; thus his interpretation of function is a simplified and ordered abstraction of the actual function or use.

Mies is not talking about form following function in the same way that other "functionalists" talk about it. He is indeed referring to satisfying form resulting from choice of structure and materials. He seems to be saying: be a good engineer and you will achieve good form. In other words his emphasis is on the structural form and the use of materials rather than on the planning of space which he believes should be as simple as possible.

His plans suggest rigidly preconceived aesthetic notions about form. He seems to be saying precisely the opposite of "form follows function" in many of his buildings where functional is only lightly defined and referred to by him as "universal" space in that it can be adapted to almost any function.

(We will deal with Universal space in a later chapter)

Perhaps where this is best noted is in the buildings planned by him at the Illinois Institute of Technology: In the Library and Administration building we find that the solution chosen to satisfy the function of a library is a rectangular steel, brick and glass box.

In the Architecture and Design building his solution to satisfy the function of a school of architecture is a rectangular steel, brick and glass box.

In the Boiler House and the Chapel, the solution chosen to satisfy both functions namely that of a furnace room and that of a place of worship is a steel, brick and glass box.

In the Fifty-by-fifty house his solution to satisfy the functions of a dwelling is a steel and glass box, and finally

A similar solution can be found in the Mannheim Theater.

In all the above, Mies is satisfying a form resulting from a choice of structure and materials, but his space can be adapted to any function. At first glance his buildings appear to be closely similar in form, for in the Miesian world the outward expression of all buildings may be the same despite their different functions.

The form is preconceived and the solutions are selective. Mies is an extreme formalist. The visual function is important to him since he uses elements in the facade which have no structural function, just to ensure that the building looks functional. The aesthetic choice is behind it all.

Critique from Mies' point of view of Sedgewick

The complexity of the spaces at Sedgewick indicate an approach to planning very different from that of the Miesian one. If we are to look for a Miesian "functionalism" in Sedgewick it would only be in the structure and use of materials where we might be able to make the most positive comparisons.

Iredale says that his team interpreted the principle of "form follows function" as form following use.⁴⁶ A functional programme was set forth by the User's Committee and spelled out in the Fundamentals of the New Sedgewick Library. In addition, another list of rules was established by the Board of Governors which acted upon the recommendations of the preliminary design by Rhone and Iredale and the report

⁴⁶ From an interview with R. Iredale held on January 30, 1983, Vancouver, B.C.

of the Senate Liaison Committee, headed by Peter Oberlander, to place the Library under the Main Mall.⁴⁷ The architects of Sedgewick used these lists of functions to generate a form or design of the building.

As Banham says, "the design (or form) proposed by the architects is an ingenious solution to a seemingly insoluble problem".⁴⁸ Thus the aim of the architect's work was to solve the problem or function, and the form of the library is the result of such an aim.

Sedgewick's architecture is a true physical reflection of a functional program as attested by the jury's comment:

"... it is the product of
a combined effort of the
design team of librarians,

⁴⁷ J.A. Banham, editor, U.B.C. Reports (October 9, 1969) The Oberlander report came after the preliminary design of the library prepared by Rhone and Iredale. p. 2.

⁴⁸ Ibid.,

students and consultants who through surveys and questionnaires identified five characteristic environments for study; short-term scanning, long-term open, long-term closed, group study and informal reading and relaxing." 49

Figures 38 and 36, show floor plans of Sedgewick with the different and diversely shaped spaces which accommodate the several functions.⁵⁰

Yet analyzing the choices made which originated the overall form of the Sedgewick library, we find that in first place it was the preservation of the mall and the direction of the circulation which has become the backbone of the design and the shape of the building.

In second place it was the saving of the trees

49 Jury's comment awarding the 1980 Honour R.A.I.C. Award to Sedgewick.

50 What Randle Iredale calls a "search for fit."

that originated the form. In third and fourth places were the decisions of going or circulating underground and the structural precast concrete system. Once the overall form was created by the choices aforesaid, the interior library uses were stuffed into it.

Thus at Sedgewick we find that the form is originated in a Miesian manner, where the function of the structure and other preconceived aesthetic decisions gave birth to the form. To claim that it was the interior library uses which determined the shape of Sedgewick does not seem to be confirmed.

Chapter 9 The Skin and Bones Architecture

Statement of code parameter for criticism

Mies writes that,

"Skyscrapers reveal their bold structural pattern during construction. Only then does the gigantic steel web seem impressive. When the outer walls are put in place, the structural system which is the basis of all artistic design, is hidden by the chaos of meaningless and trivial forms. We can see the new structural principles most clearly when we use glass in place of the outer walls, which is feasible today since in a skeleton building these outer walls do not actually carry weight."⁵¹

He further adds that the fixed points of the plan are stair and elevator shafts; all the other elements of the plan are partitions, which do not

⁵¹ Ludwig Mies van der Rohe, "Two Glass Skyscrapers" Fruehlicht, Number 1 (1922) p. 123

reach the ceiling, and when they do, glass is used in order to maintain the unity of the space. The location of the partitions is determined by the needs of the particular function and can be easily changed.

Mies emphasizes that the materials to be used are:

"concrete, steel, glass.
Reinforced concrete structures are skeletons by nature. No gingerbread. No fortrees. Columns and girders eliminate bearing walls. This is skin and bone architecture."⁵²

To understand Mies' code let us look at three of his works. In the Library and Administration Building at the Illinois Institute of Technology, the structure is located inside the enclosing glass curtain wall. The structure reveals itself through the glass. This is very dramatic at night when the building is lit.

⁵² Ludwig Mies van der Rohe, "The Office Building" "G", Number 1 (1923) p. 3.

In the Fifty-by-fifty house, the situation is reversed. The structure is located outside the glass skin. The structure is revealed with clarity. Sometimes as in the Seagram building in New York, both solutions are apparent. On the ground floor level the structure is outside the skin and on all higher floors it is inside the glass.(figure 29)

A third solution is evidenced at the Boiler House building. Here the structure and the glass are located in the same plane. The skin is secured between the bones.

Critique of Sedgewick from Mies' point of view

At Sedgewick we find an emphasis on the expression of the structure and undisguised materials resulting in a form based on structure. The outer walls are glass and the precast concrete skeleton is exposed throughout. The glass is the skin and the structure is the skeleton or bones of the building. The Miesian concept is usually present.

building. The Miesian concept is readily present.

Note how the fixed points of the plan are stairs and elevator shafts; all the other elements of the plan are partitions. Bearing walls are not needed. The columns support the structure. The caissons walls and the north-south walls are retaining walls rather than bearing walls.

The choice made by the designers to use reinforced concrete which as Mies says, produces by its very nature a skeleton type structure, is only partially revealed when observing the facades. In figure 5, where although there are no outer walls and the columns are clearly present, the structure is confused or camouflaged by planters set into the external edge beams.

The same confused expression is found in figure 10 showing the west facade. Here the glass acting as the enclosing skin is located in the same plane as the structure and at times, inside of the

structure, but again the planters cover up the bold forms of the structure is hidden by the unrelated forms of the planters.

Note again figures 5 and 10, the columns express the vertical support of the structure, but the horizontal structural elements, the bold forms of the interior T-beams are not successfully expressed on the outside.

The cantilevered edge-beam planters are ambiguously related to the structure. It is not easy to understand what is supporting them or what their true structural function is in relation to the other structural elements in the building. The expression is not of structural rationality, but suggests elements floating or levitating in the air. So while this use of materials and the crisp machine-like forms seem to recall Miesian formal structural principles, the primary aesthetic impact here derives from the denial of structural processes rather than the expression of them.

Chapter 10 The Industrialization of Architecture

Statement of code parameter for criticism

Mies' third rule for good architecture proposes the industrialization of building methods. He says,

"our building methods today must be industrialized. Although everyone concerned has opposed this until recently. I consider the industrialization of building methods the key problem of the day for architects. Once we succeed in this, our social, economic, technical and artistic problems will be easy to solve. The problem before us is to revolutionize the whole of the building industry. Hand work should be eliminated. Our first consideration must be to find a new building material. It must be a light material which requires industrial production. All the parts will be made in a factory and the work at the site will consist only of assemblage, requiring extremely few man-hours. This will greatly reduce building costs. Then

the new architecture will
come into its own."⁵³

He adds that the building of the future will not be done by hand workers, just as the automobile is no longer manufactured by carriage-makers.

Mies not only promoted this rule of industrialization of architecture by word, but also by deed. All his projects have a high percentage of factory construction, although they required a lot of hand-finishing to give them the look of machine-made precision.

The machine-made precision is revealed in all his buildings. The inside and the outside of his buildings show the industrialized construction methods. For example the Architecture and design building project in Chicago, clearly an excellent example of a building that appears to have achieved its elegant form from the application of industrialized building methods.

⁵³ L. Mies van der Rohe, "The Industrialization of Building Methods", "G" number 3 (January 1924) p. 8.

Critique of Sedgewick from Mies' point of view

The Sedgewick library building is a highly industrialized building. The axonometric sketch of the precast components shown in figure 42 confirm the industrialized conception of the design. The different components are put together in a mechanical-like manner on the site, after being transported from the factory. Indeed the interior view shown in figure 31 presents a structure that clearly seems to have been assembled from previously manufactured parts: the column first, the hollow cross beam next and finally the double T-beams. Even in the brick work, we detect the machine-made regularity of the bricks.

Mies' buildings looked industrialized, yet careful examination of his design reveals that his buildings were not industrialized. On the other hand, Sedgewick does not look industrialized (the exterior), yet it is in fact factory made.

The effectiveness of Sedgewick's architecture seems to depend on a design which is neither all "industrialized" in appearance nor all "ad hoc" in appearance. This is a reflection of the designers wishes to have "more hand made" materials.

Nevertheless the reliance on the exposure and frank revelation of the industrialized structural elements of the building (inside) as a major aesthetic approach indicates strongly Miesian vision on the part of the architects of Sedgewick Library.

Despite the irregularities of the plan, and the special circumstances of the site a high degree of standardization was applied at Sedgewick. One of the successes of the design was to prove that the use of industrialization did not have to result in a factory like building, nor did it resemble a stereotype.

Chapter 11 God is in the Details

Statement of the code parameter for criticism

In the fourth rule, Mies claims that good architecture is based on technology. He says,

"Technology is rooted in the past, -it dominates the present and tends into the future. It is a real historical movement, it shapes and represents our epoch. Just as religion was for the Middle Ages and the discovery of man as a person was for the Classic Renaissance period." 54

Technology reveals its true nature when it is left to itself as in the structures of engineering. Then it acquires a meaning. "Wherever technology reaches its fulfilment, it transcends into architecture." 55

54 L. Mies van der Rohe, "address to Illinois Institute of Technology (1950)", in Philip Johnson, Mies van der Rohe, 3rd. edition (new York: Museum of Modern Art, 1978), p.203

55 Ibid., p. 204

Architecture and technology are closely related; in good architecture one should be the expression of the other.⁵⁶ The reason for this, according to Mies, is based on his claim that architecture is the "crystallization of technology's inner structure and the slow unfolding of its form."⁵⁷ As a true craftsman, he points to the architectural details where this phenomenon is to be found and perfected. "God is in the details", he used to say.

It is worthwhile noting that Mies who received his first lesson of building from his father, a master mason, by the placing of stone on stone, says that good architecture must be developed from the construction details.⁵⁸ It is not the material however, which is important, but rather the construction technology itself.

⁵⁶ Ibid., p. 205

⁵⁷ Ibid., p. 9

⁵⁸ Ibid., p. 10

Mies designs careful details. Using concrete, steel and glass with great craftsmanship consistent with the technology of these materials, Mies conveyed his fourth rule of an architecture emerging from a new technology. It is the machine-made precision he sought which identified his details, which was achieved at great expense and handwork.

Critique from Mies' point of view of Sedgewick

The designers of Sedgewick planned a careful detailing as evidenced in the layout of the pre-cast components and construction details as shown in figures 42, 43 and 44. Despite their effort in following Mies' ideals, at Sedgewick we do not find, in the final product a "machine-made precision" in the detailing of the pre-cast concrete nor in the poured-in-place concrete. Figures 34 and 35 reveal a bulky and rough detailing. They are in clear opposition to Mies' meticulous detailing.

Here there is allowance for greater tolerances than the pre-cast and poured-in-place concrete requires, an aesthetic approach which is closer to the detailing of Le Corbusier than that of Mies. At Sedgewick we find in addition to the natural bulkiness of concrete, a roughness which need not exist.

Mies has shown us that concrete if properly detailed can be precise and smooth. His work indicate that he preferred it that way. Figure 34 showing a close-up of the concrete planters of Sedgewick reveals a conflict between the Miesian search for a highly crafted concrete -the sharp, careful edge design- and the rough, accidental texture of the concrete and its bold, unprecise expansion joints. The result would likely have been more successful if a more rigidly Miesian approach had been followed or perhaps altogether abandoned for a softer or more rusticated detailing.

Chapter 12 Less is More

Statement of the code parameter for criticism

Mies' fifth rule is contained in a letter to Dr. Riezler.⁵⁹ After delivering an attack against form as an end in itself, he indicated that his aim was not to judge the results, but to foster the creative process. Life was decisive for him, but only what has life on the inside has a living exterior. The office building is a house of work, of organization, of clarity and of economy. It is a work space that should be unbroken and articulated according to the organization of the work. In good architecture, maximum effect is achieved with minimum means: less is more.

⁵⁹ L. Mies van der Rohe, "A letter on Form in Architecture", Die Form, 2nd year, No.2 (1927) p. 59.

Mies has always been guided by his personal motto, "less is more". The sparseness of his installations focuses attention on each object and makes the arrangement of the objects all-important. Mies was a master at placing things in space.⁶⁰ In the Barcelona Pavilion for example, a minimum of partitions are disposed with studied exactness to achieve the maximum individual effect.

Although the concept of less is more is to be found throughout Mies' work, it is in the Fifty-by-fifty house where this effort to simplify, articulate, and give artistic expression to structural system is most radical.

Critique of Mies' point of view of Sedgewick

At Sedgewick we find exposed columns, beams, brick and concrete. This sparseness focuses the

⁶⁰ Philip Johnson, Mies van der Rohe, (New York: Museum of Modern Art, 1978) p. 49

attention on the objects themselves, the column, the beams, the T-beams, the brick wall of the caissons. Figure 23, shows the sparseness of the interior concrete structural elements.

The same is noted in the exterior (figure 22). The exposed surface of the brick brings one's focus on the shape of the caissons. Their cylindrical form is accentuated by the lack of molding, carving or other ornaments on its surface.

In contrast to these successful elements, where the code is followed, we find that when an ornament is added, the understanding of the object is blurred. For example: The adding of unnecessary complicated forms to the plan, only confuses the interior spaces. (figure 38). Compare this confusion to the clarity of floor plans of the Barcelona Pavillion and the Fifty-by-fifty house. In the latter each wall seems to acquire importance, readability and clarity. At the Sedgewick floor plan, such qualities cannot be found.

Note the graphic in figure 4, its graphic pattern destroys the existence of a corner. It makes the space more difficult to understand. It is taking away from rather than adding to the interior. More is less.

Figure 2, shows a detail of the cones on the mall. The mirrors in Miesian terms, confuse the observer in his understanding of the cones. The reflecting quality of the mirrors makes the cones insignificant. By adding the mirrors we have less of the cones. More turns out to be less.

The carpeted surface of the steel formed concrete cones in figure 6, complicates rather than clarifies the object. On the one hand the forms seem to want articulation to separate them from one another. On the other the use of a single surface material flowing over them tends to unite them into a single plane.

The use of different coloured lighting, is an

added element. Figure 8 shows the texture of the T-beams, with the lighting system lodged in them. The use of different colours distracts attention from the object itself. The T-beams become more difficult to read and the eye focuses attention on the colour patches rather than to the architectural elements. Furthermore, the use of colour tends to alter the apparent shape of the beams. For example where blue clours are used the edges of the T-beams become blurred, in contrast to the use of red colour, when we perceive the meticulously contoured edges of the structure housing the light source.

The addition of lettering to the glass, as shown in figure 3, distracts from the function of the fenestration. The eye is forced to read the words rather than enjoy the view afforded by the window. The extensive use of glass from floor to ceiling is an effort by designers to introduce an element which is invisible, permitting one focusing attention to the outside landscaping. The addition of visual barriers to the glass for safety reasons,

forces attention on the glass itself by the observer. By the use of lettering and quotes from Shakespeare related to glass both visual and intellectual attention is elicited.

In the next section of this dissertation we will examine the philosophy of complexity as a positive element in architectural aesthetics. Obviously it is difficult to weigh objectively the advantage of one philosophy over another. Perhaps it is the presence in Sedgewick of the expression of certain Miesian trends that induces the critic to look for the whole Miesian package. The absence of such an important element as the rational simplification of space and the resultant break-down of the Miesian unity leads to a disappointment that perhaps should be blamed on the rigidity and uncompromising character of the Miesian approach which defies imitation and therefore more seriously reveals a flaw in the Miesian doctrine than it does in the failure of a building like Sedgewick to live up to the doctrine.

Chapter 13 The Universal Space

Statement of the code parameter for criticism

Mies' sixth rule is contained in a speech delivered at a Werkbund meeting in Vienna entitled "The New Era". He declares that good architecture must reach beyond self-expression to the universal.⁶¹ He says that,

"We are dependent upon the spirit of our time. The genuine spirit of our time is concerned with the values of technology. Our work when producing good architecture should have a single goal: to create order out of the desperate confusion of our time. We must have order, good architecture allocates to each thing its proper place and gives to each thing its due according to its nature."⁶²

⁶¹ L. Mies van der Rohe, "The New Era", Die Form, 5th year, number 15 (August 1930) p. 406

⁶² L. Mies van der Rohe, "Inagural Address as Director of Architecture at Armour Institute of Technology, (1938)" in Philip Johnson, Mies van der Rohe, 3rd edition (new York: Museum of Modern Art, 1978) p. 199

"We want no more, we can do no more", he concludes.⁶³

The new international style of architecture born in the early thirties from Mies' sixth rule of good architecture, had to comply with certain characteristics: "the regularity of skeleton structure as an ordering force instead of the classic axial symmetry; the treatment of exteriors as weightless, non-supporting skins rather than the classic heavy solids obedient to gravity (see chapter 8); the use of colour and structural detail in place of the classic applied ornament (see chapter 11)."⁶⁴

The flexibility of the skeleton construction was such that it could be applied to a great variety of functions. Despite the complex interior, arranged with movable non-load-bearing partitions,

⁶³ Ibid., p.200

⁶⁴ Ibid., p. 43

the exterior design is the same for all uses and often the interior does not differ much either from function to function.

Conceptually it was also acceptable to apply the same solution to all functions, since Mies created an ordered abstraction of the uses around a few values. Just as he advocated the repetition of architectural elements produced in factories (i.e. steel and glass), he carried his idea to the architectural space, his concept was two fold: First, that one space should flow into another without interruption; Secondly, that the unity of the whole space should not be broken, thus the partitions did not reach the ceiling. If the function changed the partitions could be easily replaced.⁶⁵ This spacial concept, he called the "universal" space. Together with his glass-and-steel-box has become

⁶⁵ This is applicable to certain buildings, he responded to the need for closed spaces and organized plans accordingly.

the single most used form in architecture around the world, attesting to the excellence of his universal solution of structural clarity and simplicity.

Critique from Mies' point of view of Sedgewick

At Sedgewick, the regularity of the skeleton structure reinforced by the spacing of the eight caissons imposes a strong order in the design. The grid of the structure permits a flexible space which could be adapted to a variety of diverse functions. It could accommodate a museum, an assembly hall, a factory. The same grid pattern could also be used to house a library.

It was very much the intention of the designers to give no particular functional character to the space, to make it multi-functional -as Randle Iredale explains. After creating two acres of open space, the designers introduced the functions of the library. They felt that if in 50 years, reading from books

should be outdated and that television or some other medium should replace the book. The built space should still be useable for whatever foreseeable or unforeseeable function may need accommodation at that time. Thus the Sedgewick library's interior can be said to be "universal" in the Miesian sense.

The floor plan shows how the entire floor is one grand space. The powerful texture of the T-beams create a unified treatment to the ceiling. Within this large space the function of the undergraduate library is developed. Figure 23 shows that the partitions do not reach the ceiling, yet separate and distinct functional areas exist.

However, the sense of unity, continuity and simplicity which in Mies' buildings becomes the symbol and aesthetic expression of this "universality" is difficult to perceive in Sedgewick. The beauty of the Miesian idea is that the "universal" space can be perceived and enjoyed as an aesthetic experience. It is not enough that the "universality" (adaptability) be presented as an unperceived possibility.

PART III ROBERT VENTURI POST-MODERN ARCHITECTURE

Summary of Venturi's theory

To Venturi the formula for good architecture is complexity and contradiction in architecture.

"More is not less", he says.⁶⁶ This is in opposition to the orthodox modern architecture of Mies who claims that less is more.

In his book, "Complexity and Contradiction in Architecture",⁶⁷ he sets forth a code under the title "Gentle Manifesto"⁶⁸ that the architect must follow to produce good architecture. His seven rules are: complexity and contradiction, ambiguity, double-functioning elements, the phenomenon of both-and, contradiction adapted, the inside and the outside

⁶⁶ Robert Venturi, "Complexity and Contradiction in Architecture", (New York: Museum of Modern Art, 1977) p. 16

⁶⁷ Ibid., p. 1.

⁶⁸ Ibid., p. 16.

and the obligation towards the difficult whole.

Venturi reacts against the simplicity, universality and what he calls the inhumanity of modern architecture. The following outlines his rules:

- (1) In complexity and contradiction versus simplification or picturesqueness, he advocates the breaking away from the primitive elementary forms and proposes a return to the diverse and sophisticated.
- (2) His ambiguity rule promotes richness of meaning instead of clarity of meaning in architecture.
- (3) The double functioning element rule refers to the use of versatile architectural elements that do several things simultaneously.
- (4) The phenomenon of the both-and rule is a reaction to the either-or of modern architecture and suggests that architecture should yield several levels of meaning among elements of varying values.
- (5) The contradiction encouraged rule suggests that in architecture there should be room for improvisation and the disintegration of the prototype. A whole which is impure is tolerated.

(6) The inside and the outside rule states that there should exist a contrast between the inside and the outside of the building.

(7) In the obligation towards the difficult whole rule, Venturi suggests that unity should be achieved through inclusion rather than exclusion.

Chapter 14 Complexity and Contradiction vs.
Simplification or Picturesqueness.

Statement of the code parameter for criticism

Venturi's first rule for good architecture is that architecture should be complex and contradictory. He says that,

"modern architecture in its attempt to break with tradition and start all over again, idealized the primitive and elementary at the expense of the diverse and the sophisticated." 69

He claims that the doctrine of less is more permits architects to be too selective in determining which problem to solve. Mies achieves the simplicity of his forms by ignoring some of the functions which the building might have been expected to fulfill.

⁶⁹ Ibid., p.17.

As an example, Venturi mentions the Glass House of Philip Johnson, a Miesian inspired design, where forced simplicity is evidenced in that the private functions are not separated from social functions in the house. In contrast, the Wiley house of Johnson goes beyond the simplicities of the elegant pavilion and explicitly separates the private functions of living on a ground floor pedestal from the open social function in the modular pavilion above. The point in these examples according to Venturi is to show that good architecture must acknowledge the growing complexities of our functional problems.

The desire for a complex architecture, and all its contradictions is a reaction against the banality and the stereotype of modern architecture. It was an attitude common to the Mannerist periods.

"Today it is relevant to both the medium of architecture and the program in architecture."⁷⁰

⁷⁰ Ibid., p. 19. Mannerism is characterized by spacial incongruity an art style in late 16th century.

Simplified forms will not work; instead the variety inherent in ambiguity of visual perception must once more be acknowledged and exploited. Complexity must emerge from the program in architecture; then we have good architecture.

Critique from Venturi's point of view of Sedgewick

At Sedgewick, we do not find a glass-steel-box, but a combination of contradictory and complex forms, as can be observed in figure 12. Huge round brick cylinders, with trees on their tops shown in figure 9; areas where the wall is totally interrupted by glazing as indicated in figure 6; unusually shaped planters noted in figure 10 and futuristic looking mirror-covered cones perforating the roof shown in figure 1. This is no longer a simple stereotype box with purist contours; here the facade is ambiguous, difficult to describe and reproduce as attested by figure 27.

The brick caissons harbouring the oaks give a unique character to the building and serve as an identifying image or symbol for the library.

(figure 45)

From the history of the planning of the Sedgewick Library as noted in chapter eight, we know that a complex program was drawn up. A rigorous set of guidelines were set up to which the design had to comply. (appendix 1) The programme required the design to comply not only with the interior uses, but it also had to accommodate the surrounding environment. Out of this intricate program, a complex and contradictory architecture emerged. This is illustrated in the Sedgewick Library's floor plans (figure 36 and 38) and in its general setting (figure 12 and 27); as well as in its elevation (figures 9 and 10) and in its interior space.(figure 8)

Furthermore if one observes the roof in figure 13, the facade in figure 14 and the main stairway shown in figure 18, in each example we find the

complexity and contradiction in Sedgewick's architecture which seem to comply with Venturi's code.

To further pinpoint some of the complexities and especially some of the contradictions at Sedgewick let us consider the building itself. When one arrives at the building at the mall level, we find that there is no building. It has disappeared. It is a non-building. The user may walk over it as if it were a road.

At the same level we find two cones, but these reflect the surroundings rather than reveal their shape. The facade also throws us off by presenting us with caissons serving as containers for the trees and yet through the glazed fenestration a library function is revealed.

The advantages of these contradictions in terms of the character of the building, its U.B.C. setting and context, the people who use it and way they use it, include the preservation of the historical

University plan, the continued use of the Main Mall as a walkway, the preservation of the park-like atmosphere of a nature oriented designed campus, and the informal non-monumental characteristics that the structure extends to the user. Added to all this is that breaks with the monotony of everyday library use.

Chapter 15 Ambiguity

Statement of the code parameter for criticism

Venturi's second rule suggests that good architecture must have ambiguity and tension. "In Le Corbusier's Villa Savoye floor plan this ambiguity is apparent: is it a square plan or not?"⁷¹ -asks Venturi. Good architecture should have oscillating relationships, complex and contradictory, which are the source of ambiguity and tension.

"The conjunction 'or' with a question mark can usually describe ambiguous relationships. Luigi Moretti's apartments on the Via Parioli in Rome, are they one building with a split or two buildings joined?"⁷²

The calculated ambiguity of expression is based on experience as reflected in the architectural

⁷¹ Ibid. p. 20

⁷² Ibid. p. 21

programme.. This promotes richness of meaning over clarity of meaning, says Venturi.

Critique from the point of view of Venturi

Sedgewick's facade reveals such ambiguity. The elevation shown in figure 48 begs the question: Is the building built around the caissons, or are the caissons supporting the building? Are the planters just planters or are they beams? Do they span from caisson to caisson? Are they attached to the building in some other way or are they completely unattached and simply floating in the air.

Venturi says that in good architecture, such ambiguity is calculated ambiguity, based on experience as reflected in the architectural programme. The architects of the Sedgewick Library were given a difficult task. They had to devise a solution which accommodated all the requirements of an undergraduate

library, while still preserving the level and character of Main Mall. Rhone and Iredale and their colleagues solved the problem by planning the library underground, between the oaks.

The architectural programme as noted above, reflects a clash of requirements giving birth to a facade which is ambiguous in a building whose siting makes it difficult to determine whether it is underground or above ground. The result is an ambiguity which seems to intrigue rather than disturb most visitors and users of the building, and thus corroborates the importance of Venturi's teaching.

Another example of ambiguity are two "solid" cones projecting from the roof, but covered with mirrors which reflect the sky, the surroundings and (the passerby, at the same time fracturing these images and dematerializing them as shown in figures 1, 2 and 26.

Turning to the inside, we find ambiguity revealed

when observing the floor plans. Just as in Le Corbusier's Villa Savoye, we find tension in the layout. This is produced not just by one single element, but by a number of them as reported below.

The carpet-covered skylight walls shown in figure 6 flouts one's habitual notions of the relationship of walls to floors. The tilt in the wall combined with its roundness is in itself disorientating. The floor and the wall merge into a singular complex plane tending to disguise where floor ends and wall begins.

The snack area shown in figure 23, reveals a tension in the space produced by the strong directionality of the ceiling beams, the angle of the wood panelling, the circular shape of the caissons and the octagonal design of the group study enclosures. All these diverse, strongly contoured elements in close proximity to one another add to the tension and ambiguity. (figures 21 and 22)

Chapter 16 The Double-Functioning Element

Statement of the code parameter for criticism

Venturi's third code for good architecture is the "double-functioning" element. This element pertains to the use and structure of the building. In this rule, Venturi maintains in effect two invariables. First he mentions the "multi-functioning" building. By this, he means a building which is complex in program and form. For example, he mentions,

"Le Corbusier's Algerian project, which is an apartment house and a highway, and Wright's late projects for Pittsburgh Point and Baghdad, correspond to Kahn's viaduct architecture and Fumihiko Maki's "collective form." 73

73 Ibid., p.34

All these have complex and contradictory hierarchies of scale and movement, structure and space within a whole. These buildings are buildings and bridges at once. On a larger scale, "a dam is also a bridge".⁷⁴ In essence the building as a whole has multiple functions.

The second part of this code deals with the double-functioning element itself. Venturi advocates the use of versatile architectural elements which do several things at once. For example, in S.Maria in Cosmedin's nave,

"the column form results from its dominant, precise function as a point support. It can direct space only incidentally in relation to other columns or elements. But the alternating piers in the same nave are intrinsically double-functioning. They enclose and direct space as much as they support the structure." ⁷⁵

⁷⁵ Ibid., p.36

Critique from Venturi's point of view of Sedgewick.

At Sedgewick we find the multi-functioning building at its best. Figures 46 and 50 illustrate Venturi's idea of a building which is a building and a bridge at the same time. When arriving at the building one does not enter into it but rather walks over it. When inside, we realize being in a circulation corridor and that people walks over the structure. We are inside of a bridge structure used as a road and corridor, yet it is also a library, a place for reading and studying.

Double-functioning elements exist at Sedgewick in the caissons, for example. They have a structural purpose; they contain a large amount of earth around the roots of the oaks. At the same time, they serve as separating elements and space shapers in the library's interior. It is the caissons that give the user the feeling of being in a concave space (figure 28), softening the harshness of the straight concrete structural elements.

Another example of this kind are the planters. They in fact serve three functions. They are containers to house the shrubs which adorn the facade, they serve as protection from direct sunlight into the reading areas, and finally, they are part of the structure, helping to support the concrete floor beams.

Chapter 17 The Phenomenon of Both-And

Statement of the code parameter for criticism

Good architecture should include the phenomenon of "both-and", says Venturi.

"The source of the both-and phenomenon is contradiction; its basis is hierarchy, which yields several levels of meaning among elements with varying values. It can include elements that are both good and awkward, big and little, closed and open, continuous and articulated."⁷⁶

Le Courbusier's Shodhan House is closed, yet open -a cube, precisely closed by its corners, yet randomly open on its surfaces. Venturi's own project, the Chestnut Hill House, claims to be both "complex and simple, open and closed, big and little".

⁷⁶ Ibid., p. 119

"The house is big as well as little, by which I mean that it is a little house with a big scale. Inside the elements are too big: the fireplace is too big. When I called this house both open and closed as well as simple and complex, I was referring to these contradictions in the outside walls. They reveal openness, yet the plan suggests rigid enclosures. The entrance is too big. The dado also increases the scale of the building." 77

Critique from Venturi's point of view of Sedgewick

At Sedgewick we find the complexities of the "both-and" suggested by Venturi. Sedgewick's architecture is both closed and open. It gives the impression of being underground (see figures 18, 19, 30 and 49) and yet, it is open to the landscaped yards, with (floor to ceiling windows providing daylight in abundance.(figure 28)

⁷⁷ Ibid., p.119

Sedgewick's architecture is also both continuous and articulated. The space flows from one end of the library to the other unobstructed, reminding us of a catacomb or a long gallery, (figure 23 and 25) and yet it is well articulated into numerous specialized areas, which are clearly identifiable and characterized. (figures 20 and 21)

Sedgewick's architecture is "both big and small." The scale of the caissons is cyclopic in contrast to the facade and the interior. (figures 9 and 49) These huge elements contrast with the smallness of the group-study spaces (figure 23 and 31) creating the kind of mannerist tension which Venturi believes has been one of the positive elements in historic architecture.

Sedgewick's architecture is both-and, at the main stairway. The upper half of the stairway is completely enclosed by a thick concrete wall, violated only by a few small openings. In the lower section of the stairway, the wall is totally

uninterrupted, and the stairway is completely open to the reading areas. (figure 47) The resulting effect is of a truncated concrete cone which, instead of resting heavily on the ground, is lifted up by some invisible force.

Chapter 18 Contradiction Adapted

Statement of the code parameter for criticism

According to Venturi, in this rule, good architecture permits contradiction to adapt. He writes:

"Contradiction adapted is tolerant and pliable. It admits improvisation. It involves the disintegration of the prototype. It ends⁷⁸ in whole which is impure."

In modern architecture, we find elementary primary forms such as the circle and the square in one single project or plan. These forms are in contradiction, yet no effort is made to adapt the one to the other. (figure 51) The purist is inflexible; to him the message must be clear, unequivocal and uncompromising. The prototype cannot be tampered with.

⁷⁸ Ibid., p.45.

Venturi rebels against this rigidity, he believes that in good architecture, the elementary forms when appearing in contradiction should compromise and adapt to each other; in a sense they should disintegrate.

Critique from Venturi's point of view of Sedgewick

In the Sedgewick Library floor plan, we find that in the overall square and rectangular layout, eight uncompromising circular caissons have been included. (figure 36 and 38) The circles contradict the rectangular layout or pattern of the structure and perimeter walls. However, the design of the non-bearing walls or panels creates a maze-like circulation plan which compromise and adapt the circles to the rectangles. In this manner, the presence of the primary forms becomes tolerable and pliable. By introducing the maze-like planning the space is directed in such a way that the contradiction of the caissons and the structure is bridged over.

The partitions appear to be improvisations and create a whole which is impure. (figure 33, 37 and 39)

Another example of this adaptation of contradictory forms is observed in the outside contours of Sedgewick facing the Mathematics Building.(figure 37) The line of the facade breaks up and follows the contours of the grade of the landscape. the box like shape of the basic plan is broken up and adapted to the natural contours of the surroundings. (figure 10)

Finally we can point to the accommodation of the roof level to the grade of Main Mall, to permit free access to the pedestrian walkway. The whole building has been adapted to the grading in order not to contradict the walkway. (figure 11)

Is this good architecture as Venturi says? Kahn would seem to agree that it is when he writes ~~that~~"it is the role of[good architectural]design

to adjust to the circumstantial."⁷⁹
Orthodox modern architects would not agree with Venturi. Le Corbusier has stated that the great primary form, which is distinct and without ambiguity [is good architecture]. Yet we must face the fact that it was compromise and adaptability that made possible the preservation of the oaks and the character of Main Mall together with its vistas and connections with the rest of the campus.

⁷⁹ Ibid., p. 46

Chapter 19 The Inside and the Outside

Statement of the code parameter for criticism

Venturi's seventh rule for good architecture says that there

"should exist a contrast
between the inside and
the outside of the
building." 80

Contrast between the inside and the outside may manifest itself, Venturi maintains, in an unattached lining which produces an additional space between the lining and the exterior wall. According to Venturi, the essential purpose of the interiors of buildings is to enclose rather than direct space, and to separate the inside from the outside.⁸¹ The function of the house, to protect and provide psychological as well as physical privacy, is an ancient one.

⁸⁰ Ibid., p.70

⁸¹ Ibid., p.72

Critique from Venturi's point of view of sedgewick

At Sedgewick Library, there was an ideal opportunity for the architects to create an underground space; an interior which would have sheltered and protected library users from the outside. The circumstances permitted the creation of an edifice where the inside was sharply contrasted with the outside. Yet the architects

"wanted to create light, open environment for learning, not an underground vault. They have accomplished their objective by designing the new library in such a way that its east and west faces open out onto landscaped courtyards in front of the Main Library and the Mathematics Building. Every room in the Library Building has an attractive view onto one or the other of these court yards."⁸²

⁸² J.A.Banham, editor, U.B.C. Reports (October 9, 1969) Vancouver: U.B.C. p. 6

The windows are floor to ceiling curtain walls. There is little indication that the building is underground. Figure 28 shows that the view of the carved out garden is visible from almost all areas. The interior is directing the space to the exterior. The observer is visually integrated with the outside. The visual continuity, the so called flowing space where the plan proceeds from within to without is not complying with Venturi's rule.

Venturi says that the inside and the outside are and should be different. When you are inside you do not know the outside. You do not know what the caissons are. (figure 28)

As described above modernist architecture and Sedgewick's architecture is showing you the inside of the building when you are outside and the outside environment when inside. In other words it is telling you where you are. All guesswork or element of surprise is eliminated at Sedgewick. Observing figure 30, the skylights tell you that you are underground,

although a more elaborate design of the modernist concept might have required that the oak trees be visible through the skylights.

The only surprise to the viewer that is permitted at Sedgewick is that when observing the caissons from the inside alone they do not give a hint of their outside purpose.⁸³ There is something positive to be said about this contrasting the interior and the exterior. It has a psychological effect of intriguing by not revealing all at one glance. Modernist architecture attempts to leave us with no surprises some would say that it tells us all perhaps too suddenly.

⁸³ Iredale notes that the temptation of placing glass around the caissons to indicate or better explain their purpose, was abandoned because it was felt by the design team that such an arrangement would be too "rich" a solution for the spartan interior - from an interview held January 30, 1983 in Vancouver, B.C.

Chapter 20 The Obligation Towards the Difficult
Whole.

Statement of the code parameter for criticism

Venturi's last rule for good architecture is concerned with the whole. The whole is achieved by emphasizing unity through inclusion, rather than the easy unity through exclusion.⁸⁴ Good architecture should include duality. Sullivan's Farmers' and Merchants' Union Bank in Columbus, presents a duality. On the outside, the door and the window reflect the duality of the inside plan,

"The arch above the lintel reinforces duality because it springs from the centre of a panel below, yet by its oneness and its dominant size it also resolves the duality made by the window and the door. The facade as a whole makes a unity."⁸⁵

84 Robert Venturi, "Complexity and Contradiction in Architecture", (New York: Museum of Modern Art, 1977), p. 88

85 Ibid., p. 89

Venturi's Meis House in Princeton also has a duality in its composition. The form is a long gable-roofed element and the back is a shed-roofed one. The duality is "resolved by the perimeter, which contains the two elements and contributes unity to the composition."⁸⁶

Critique from Venturi's point of view of Sedgewick

Is Sedgewick Library's architecture concerned with the unity of the whole? And if so, how is this unity achieved? What obligation towards the final expression of the whole was in the mind of the designer?

In Sedgewick the basic design module of the composition might be visualized as two caissons connected by a planter. (figure 52) Note the use of two columns and the ending of the planter which does not reach

⁸⁶ Ibid., p.114

the brick. This creates a number of corners and elements which accentuate duality. The emphasis on duality is made clearer, if we observe figure 53. A speculative detail indicates how an avoidance of duality might have been achieved by the designers if that had been their intention.

It should be noted however, that by judging the general expression of the library from the bird's-eye view shown in figure 27, we detect a willingness to reach a unity through inclusion of all the functions determined by a complex programme. It is thus not an easy unity, enclosed in a primary form (circle, square or triangle), but one which is in agreement with Venturi's seventh rule.

PART IV SUMMARY OF THE ANALYSIS

It was the aim of this thesis, to test the validity of the theories of Ruskin, Mies and Venturi, to see how and if they can be applied to architectural criticism today.

The analysis of the usefulness of each of the codes in assessing the quality of a modern building such as Sedgewick reveals, first of all that all three together cannot be applied, since they often contradict one another. For example Ruskin believed that the changes that modern technology was bringing about were destroying the essential character of architecture. Mies on the other hand declared that "whenever technology reaches its fulfilment, it transcends into architecture."⁸⁷

⁸⁷ L. Mies van der Rohe, "Address to Illinois Institute of Technology (1950)", in Philip Johnson, Mies van der Rohe, 3rd. edition (New York: Museum of Modern Art, 1978) p. 203

Thus the former advocates handcraftsmanship and the latter demands industrialization.

Furthermore, while Mies says that we must reach beyond self-expression to the "universal"⁸⁸, Venturi reacts against the universality and calls it the inhumanity of modern architecture.

Secondly, I have also found that applying any one of the theories lock-stock-and-barrel does not work. For example as far as Ruskin's lamp of Power is concerned, I feel that the opposite to power is in the minds of most designers today. Mies' "less is more" concept is being challenged in the 1980's. Today we would tend to require a solution which is generated from a more complex world than the one he advocated.

⁸⁸ L. Mies van der Rohe, "The New Era", Die Form, 5th year, number 15 (August 1930), p.406

Thirdly I have found that each theory is partly useful in most situations. Thus the problem that I faced as a critic was to find that each has validity but that each fails in some aspects. Their usefulness cannot be denied, since some of the standards can be applied today, but then again we can use only a little of each. Throughout this test I perforce had to apply the standards selectively, one might say eclectically.

This eclectic approach might open the critic to accusations of evasion, unwillingness or inability to adhere to a single strong philosophy. There are those who believe that the architecture of today suffers for the very reason that architects do not have a firm, structured philosophy to follow.

The invention of a non-firm, flexibly structured philosophy of architectural criticism might be said to reinforce what is seen as a weakness in our cultural life. We have to ask ourselves if it is an evasion to chose only those aspects of each theory

which happen to fit the particular situation -or is it a fair and proper thing to do?

Today eclecticism in architecture is accepted, as we have found in a modern building such as Sedgewick. The contemporary architect borrows ideas from various times and places and puts them together in ways not too different from the eclectic approach of the 19th. century. Thus for the critic to cope with such architecture he also has to become flexible. Failing to do so would render his work impossible.

I wish to advance the proposition that the critic who picks and chooses bits of this theory and that theory on which to base his criticism, but faithfully refers to each theory as it applies, is responding validly with an eclectic criticism to an eclectic architecture. The problem is not to invent a new code; only a new Mies or a new Ruskin could do that. Perhaps in our time architects would not accept a new strong all encompassing dogma as a guiding light,

especially when they accept eclecticism as a characteristic of contemporary architecture, and when they accuse the modernist movement of the recent past of having committed gross errors precisely because of the rigidity and purism of its philosophy.

Some of Ruskin's theories can be used as standards of criticism, and indeed should be used when the architects think like him and if it is Ruskin's standards on which the architects design is based. For example Ruskin's Lamp of Memory has taken on new importance with the revival of the conservationist movement. We have seen buildings, groups of buildings and entire sections of cities preserved within the rules set by him.

We could apply Mies' idea of "skin and bones (architecture" because in contemporary architecture it has become part of the architectural language. His concept of industrialization of architecture has equally been widely accepted.

From Venturi, we are using the concept of the double-functioning element. My testing proved that it is much applied today with success. On the other hand, if my testing had shown that his theories and the other two are all useless, then we could have safely forgotten them.

We have found however, that the latter is not the case, and that the theories are partially useful. We can also conclude that today there is no one single theory which answers all questions and that contemporary architects rather than seek a strong single dogma, are selective or eclectic. Contrary to Ruskin's code which suggests that we follow one code, although it does not matter which one, today architects are following not one code, but rather selecting bits and pieces from different codes. Contemporary architecture is not stuck with the modernist philosophy.

Venturi's concept of unity by inclusion is selective. Perhaps this selectivity (and to certain degree confusion) should not surprise us, since it is in keeping

with the underlying thought on which Sedgewick's architecture and contemporary architecture is based: that of technology. Venturi and Sedgewick's architecture are children of the technological age, proclaimed by Mies, and resented and feared by Ruskin. It is an eclectic architecture which requires an eclectic criticism based on something the architect has set up: a little of Ruskin, Mies and Venturi and others.

I am thus concluding that we do not need a new theory for criticism, but that we can use the old ones, selectively and make them work.

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APPENDIX NO. 1

SUMMARY OF THE HISTORY OF SEDGEWICK LIBRARY.

A new Sedgewick Library was first proposed by B. Stuart-Stubbs and W.J. Watson in June 1966. In September 1968 a User's Committee was appointed to prepare a Facilities List. The Library was designed to meet the needs of undergraduate students in the first four years of arts, commerce and education for a total of 11,000 students. The Library was named after Dr. Garnett Gladwin Sedgewick (1882 - 1949) the first head of the University's Department of English.

The highlights of the Facilities List stipulate that the Library should provide space in which library materials are stored, serviced and used. The building should be hospitable, it should consist of spaces ranging from formal to informal. The library must be economical of the time of users as well as recognize the complexity and dynamism of the organization. The total gross area of the building is 140,000 square feet.

Rhone and Iredale Architects were commissioned in February 1969 to produce a design for the library. Dr. H. Peter Oberlander, director of the School of Community and Regional Planning headed a special Senate Committee in charge of making recommendations regarding the preservation of the existing form and quality of the prevailing academic environment and landscape.

In October 1969, the Board of Governors approved the plan under the Main Mall, as proposed by the architects.

The Library opened in January 1973, providing 2,000 study seats and space for 200,000 volumes.

The Library Building was awarded the 1970 Best Design Award of the Canadian Architecture Yearbook. The panel of judges consisted of J.A. Murray, D. Shadbolt and D.C. Rowland. It was also awarded the First Award of the Royal Architectural Institute of Canada as the best building of all kind built in 1973 and seven years later, the Architectural Institute of British Columbia awarded the Library design the 1980 Honour Award.

International recognition followed in a variety of publications and the Library was hailed as "a seminal influence in the design of new library buildings during the coming years" by Ellsworth Mason.⁸⁹ (see plans in figures 37 - 44)

⁸⁹ Ellesworth Mason, Professor at Hofstra University, N.Y. published: "Underneath the Oaks: The Sedgewick Library at U.B.C." (1977)



Figure 1 Skylights



Figure 2 Skylight



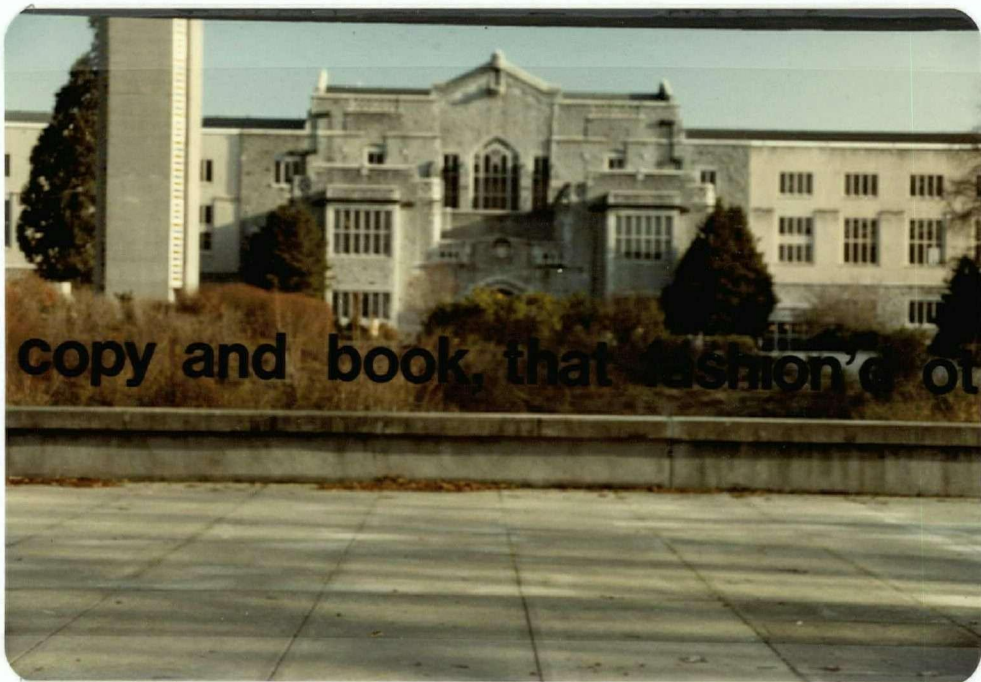


Figure 3 Lettering



Figure 4 Graphic
by
Virginia Chapman
and
Terry Harrison





Figure 5 The Vancouver Art Gallery

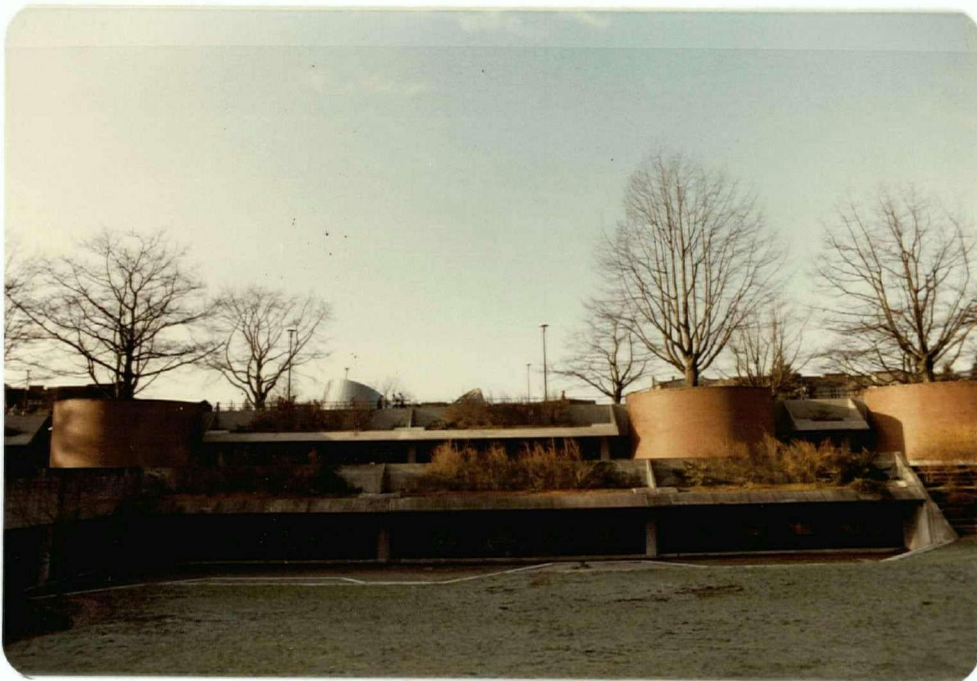




Figure 6 Carpet on wall of skylight

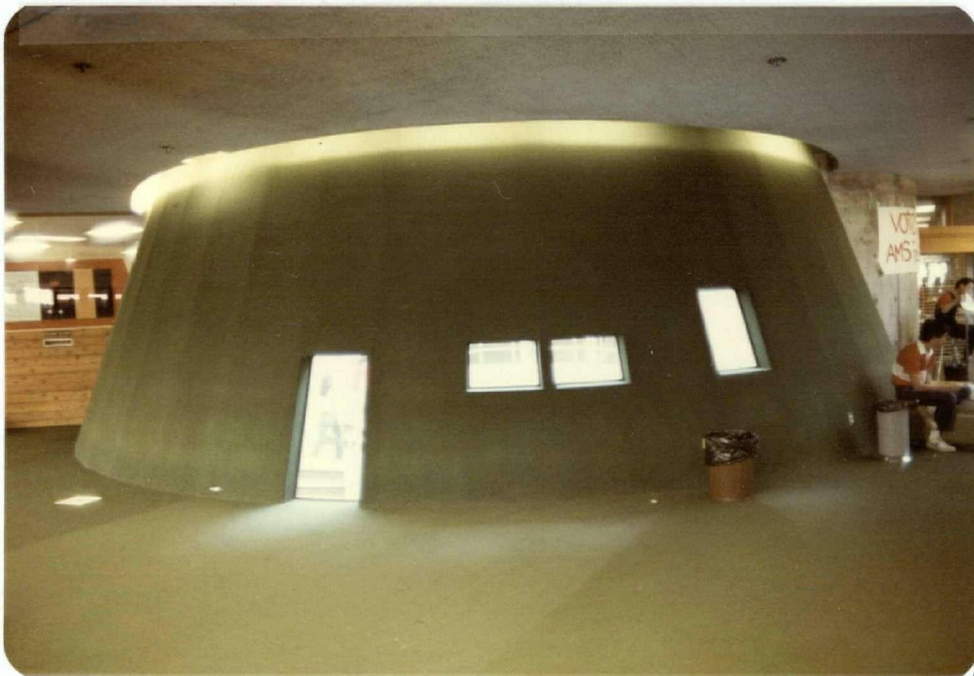


Figure 7 Brick wall detail

See figure 43 for detail of
section through tree drum





Figure 8 Ceiling structure





Figure 9 Caissons

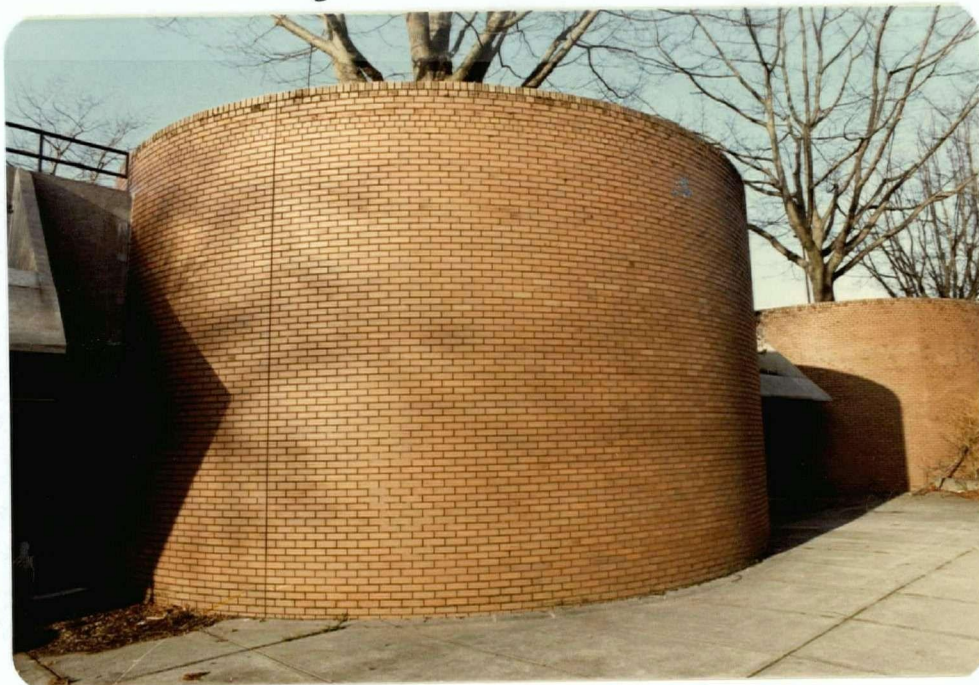




Figure 10 Planters





Figure 11 Roof Garden





Figure 12 Bird's-eye view





Figure 13 Roof garden



Figure 14 Hill shaped facade



Figure 15 Structure



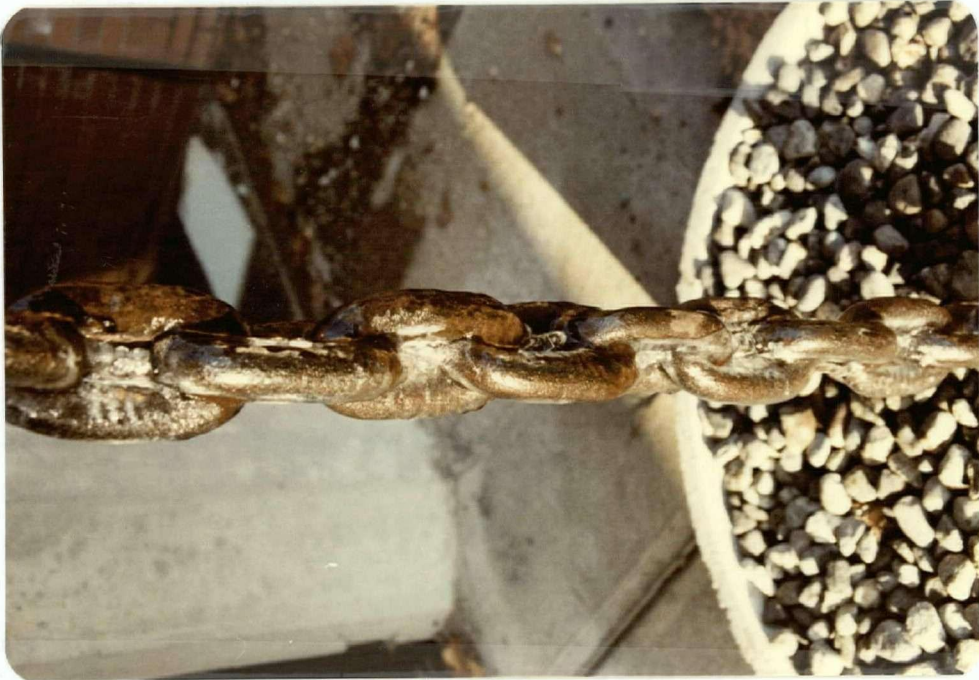


Figure 16 Drain detail





Figure 17 Oaks on the Mall





Figure 18 Main stairway



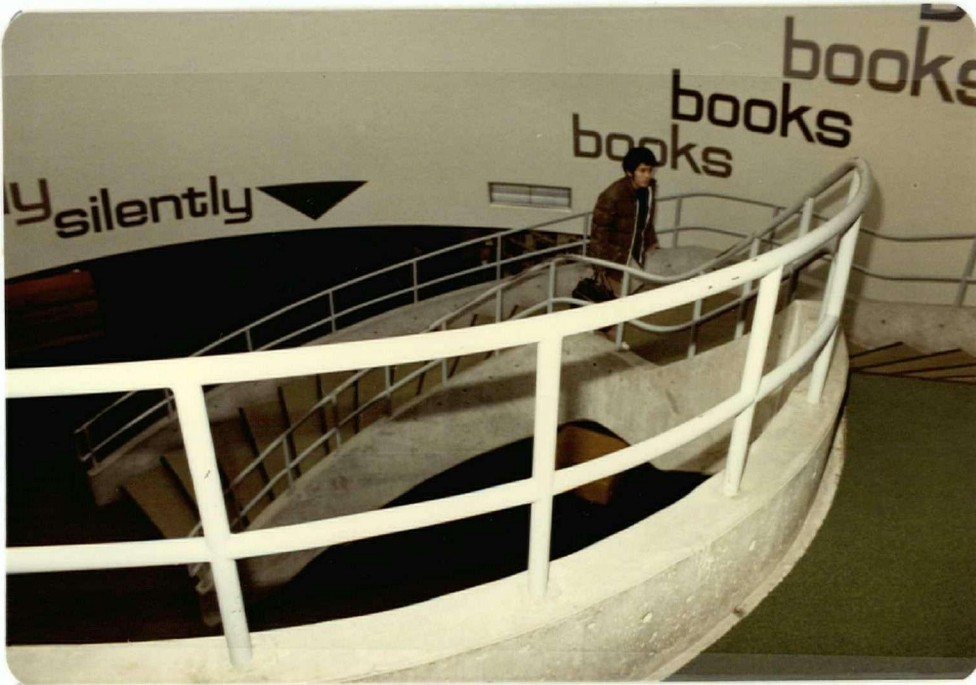


Figure 19 Main stairway



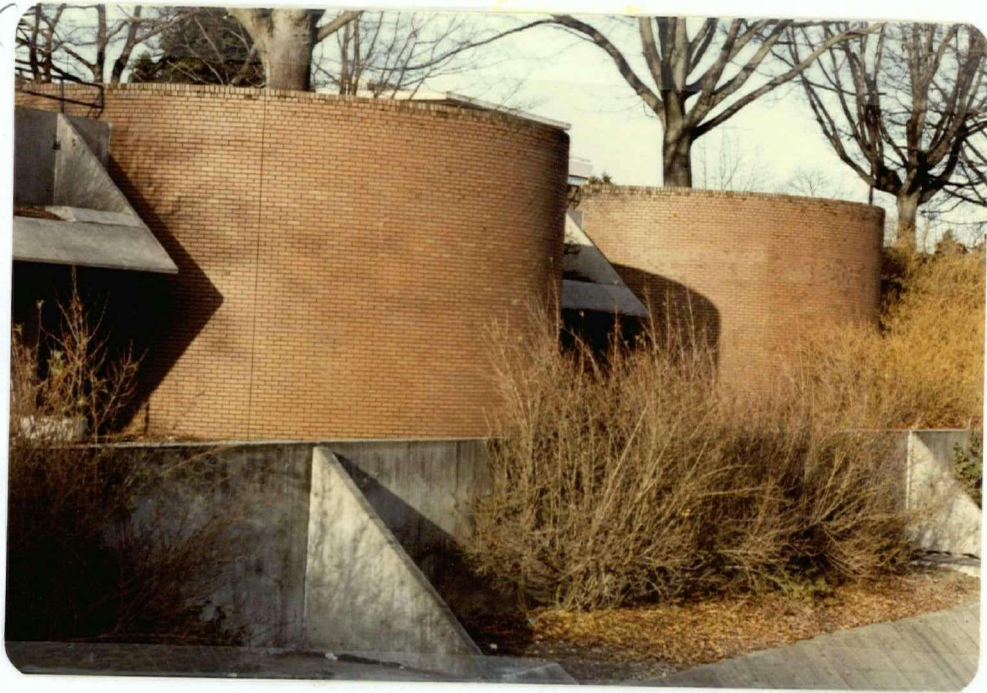


Figure 20 Brick work





Figure 21 Partitions





Figure 22 Partitions





Figure 23 Pre-cast concrete ceiling





Figure 24 Main stairway





Figure 25 Columns and beams

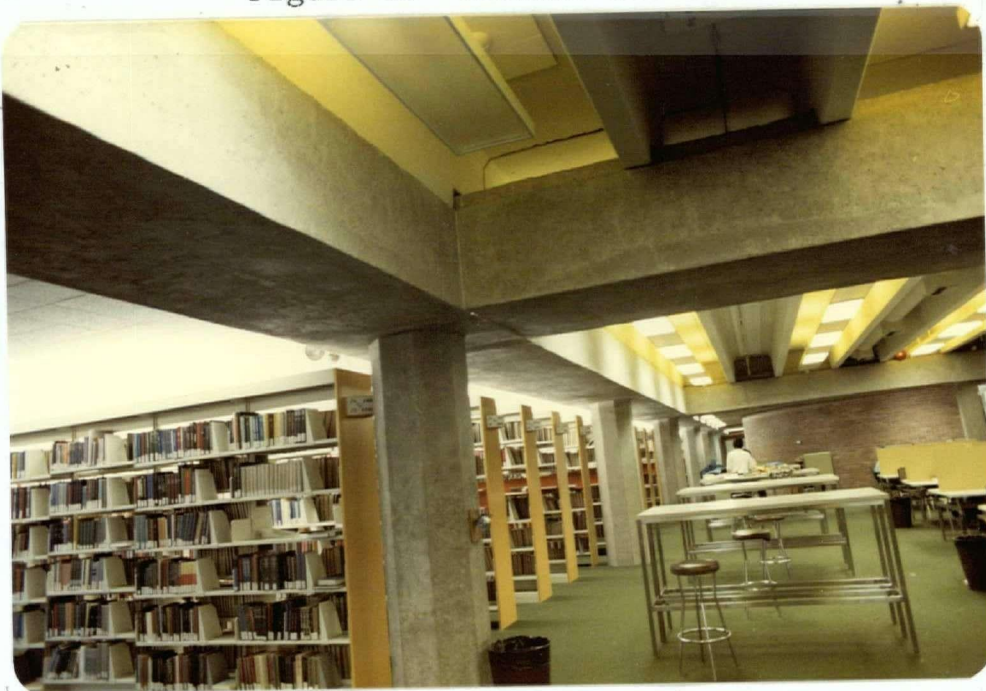




Figure 26 Roof and facade





Figure 27 Bird's-eye view





Figure 28 Fenestration



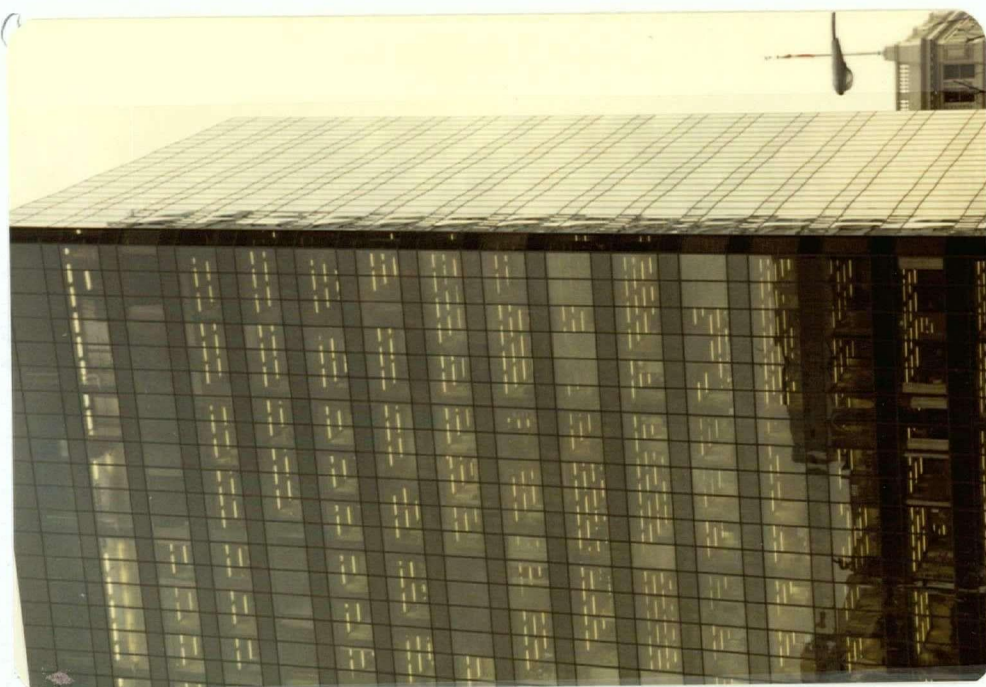


Figure 29 Curtain wall Pacific Centre
Tower, Vancouver, by Mies'
follower Walter Green

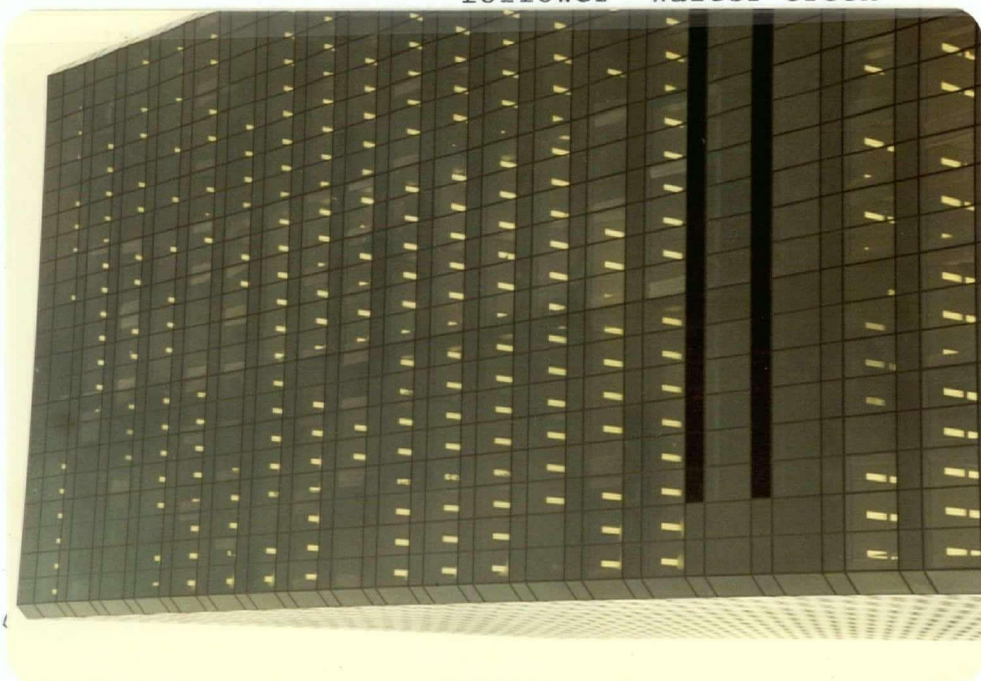




Figure 30 Skylight



Figure 31 Pre-cast structure

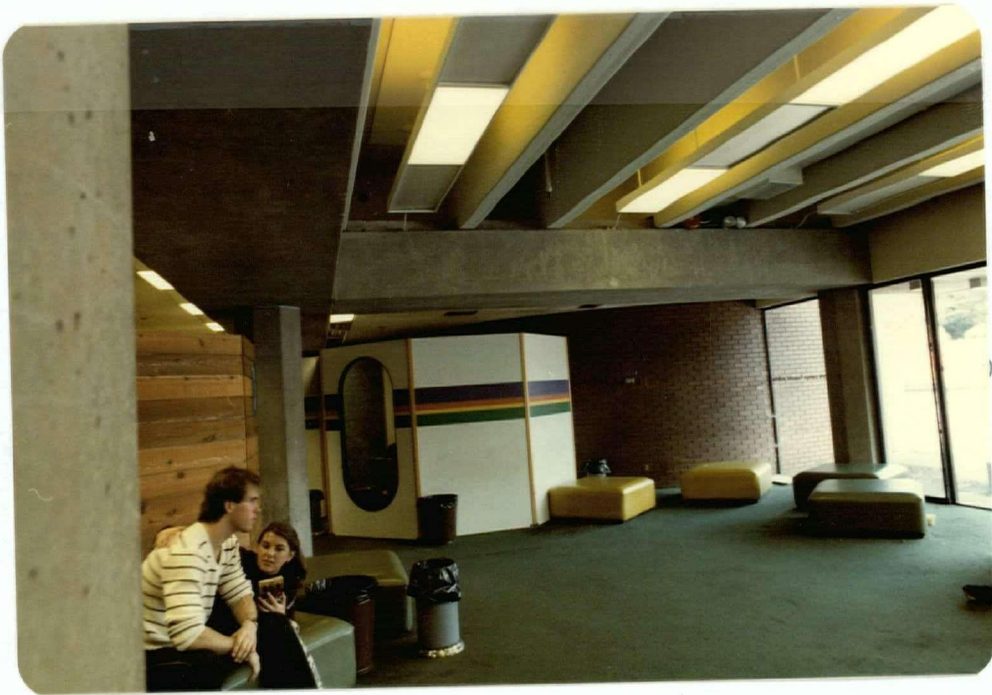




Figure 32 Facade





Figure 33 Main Stairway



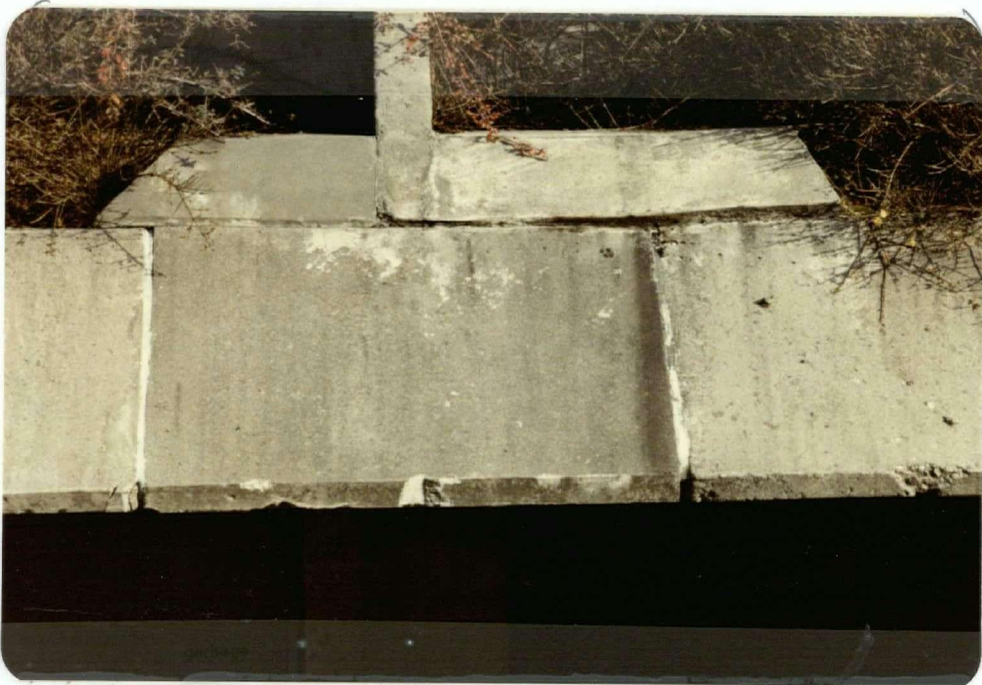


Figure 34 Detailing





Figure 35 Detailing

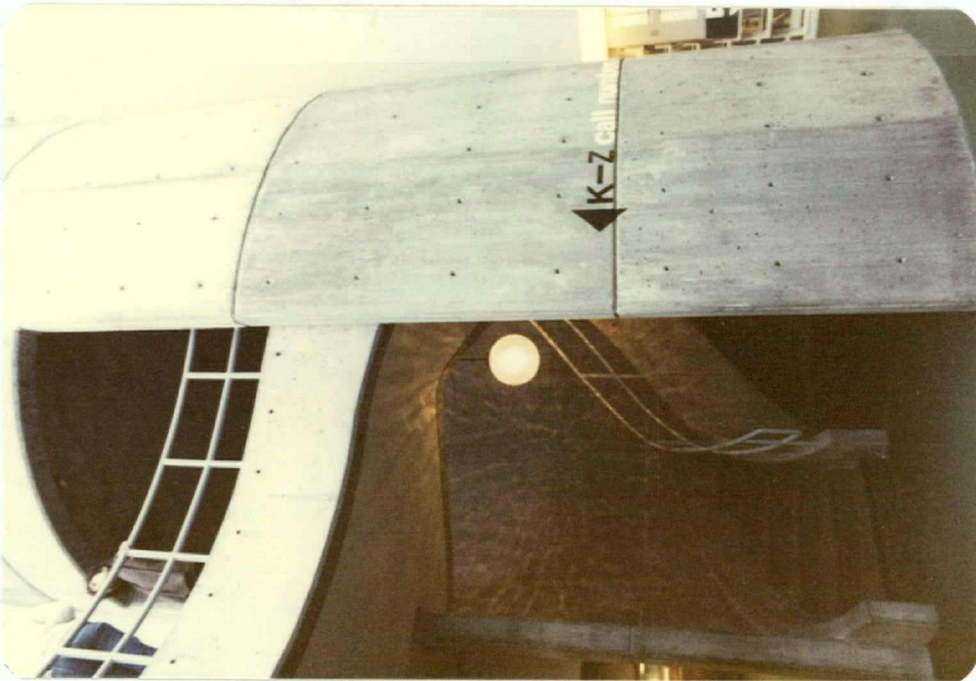


Figure 36 Floor Plan

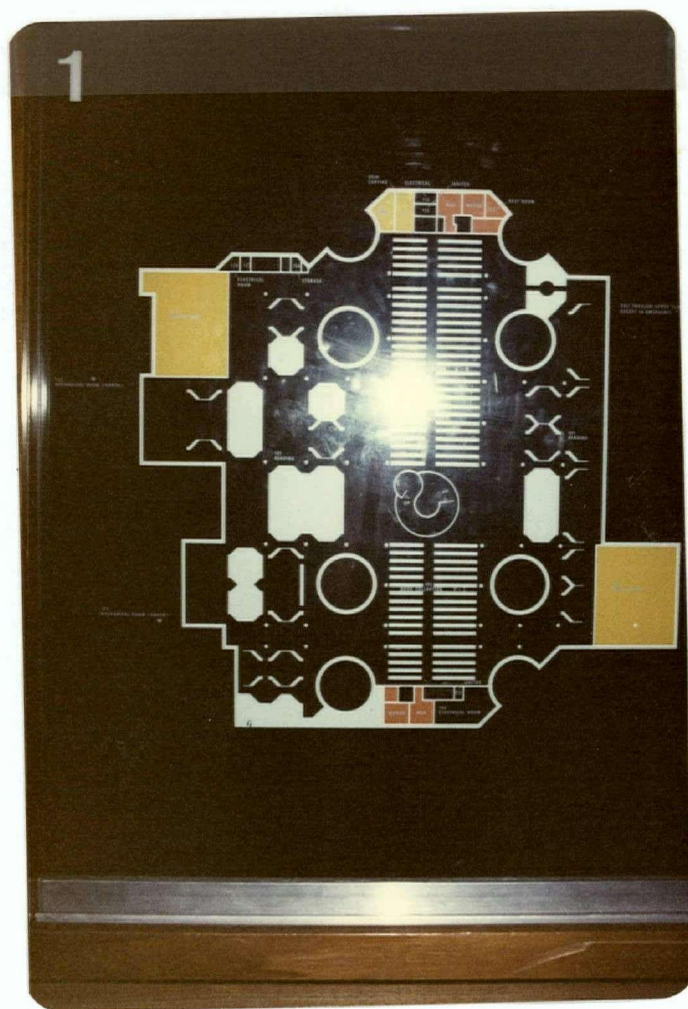


Figure 37 Site Plan

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from Rhone and Iredale Architects,
credits to:

R.Iredale, partner-in-charge
R.Todd, project manager
R.Henriquez, design architect
K.L.Chang, design architect

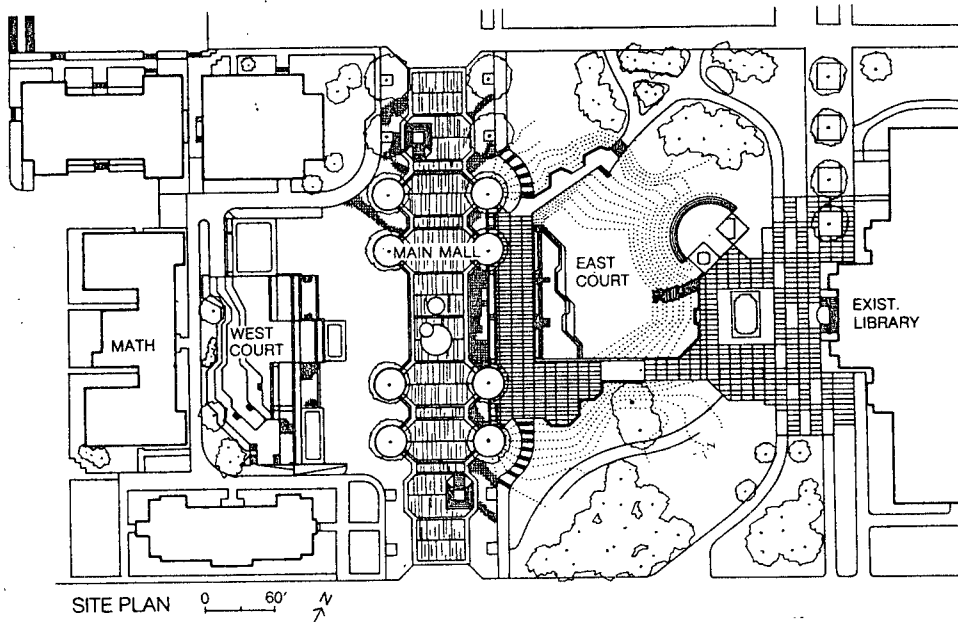


Figure 38 Floor Plan

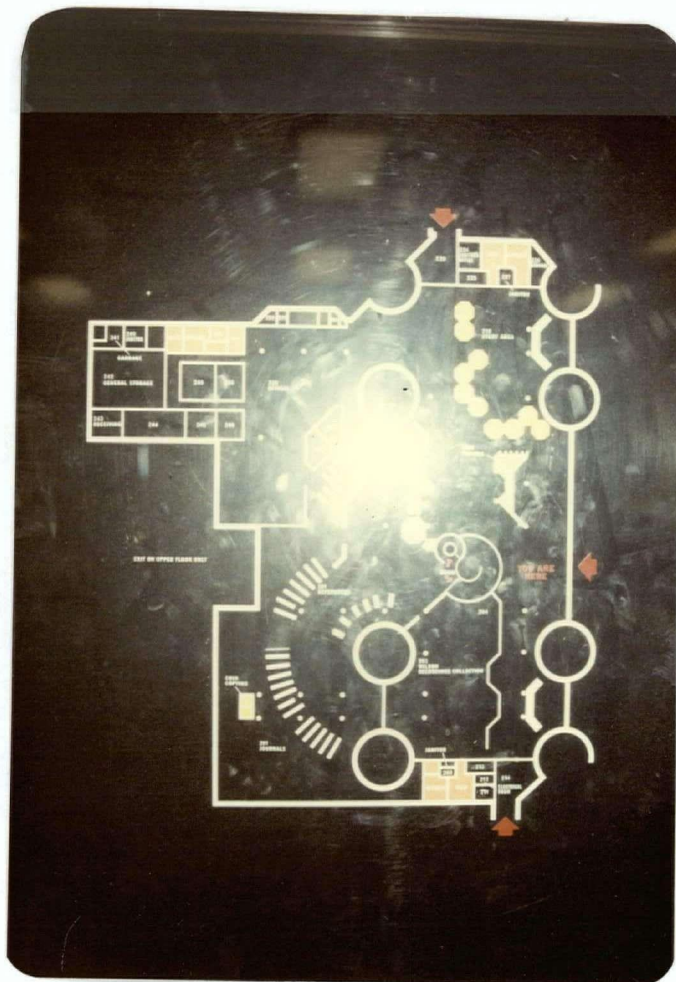


Figure 39 Floor plan
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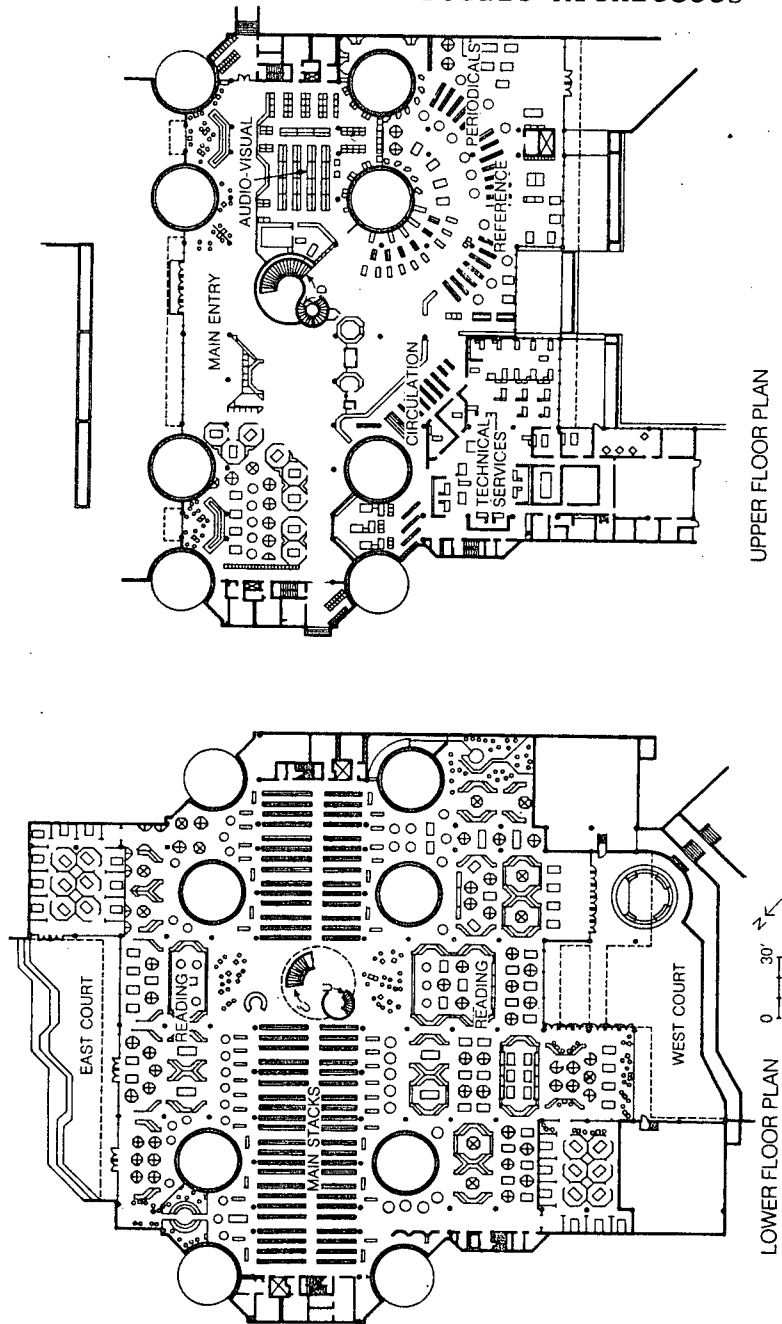


Figure 40 Elevations
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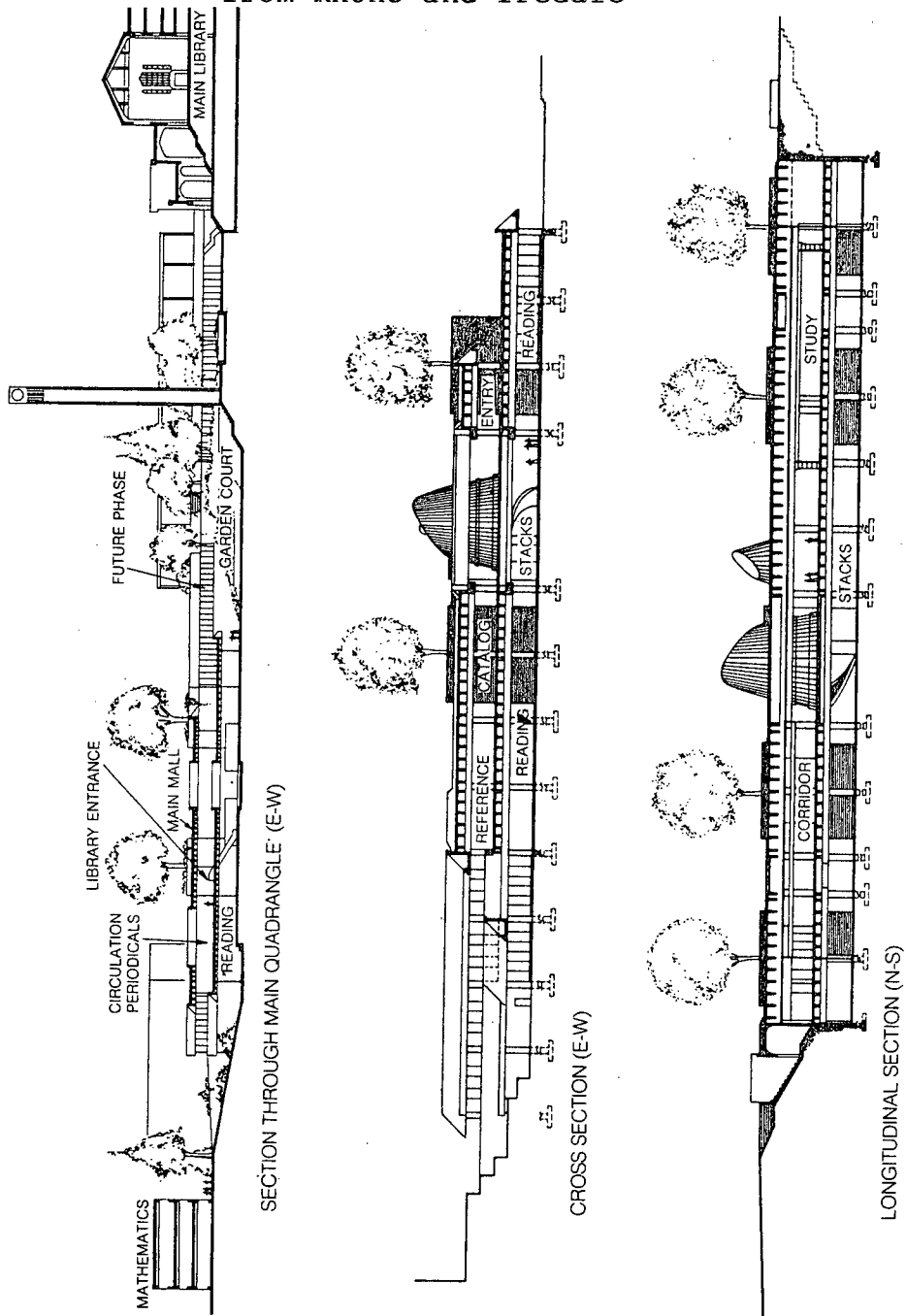


Figure 41 Facade



Figure 42 Isometric
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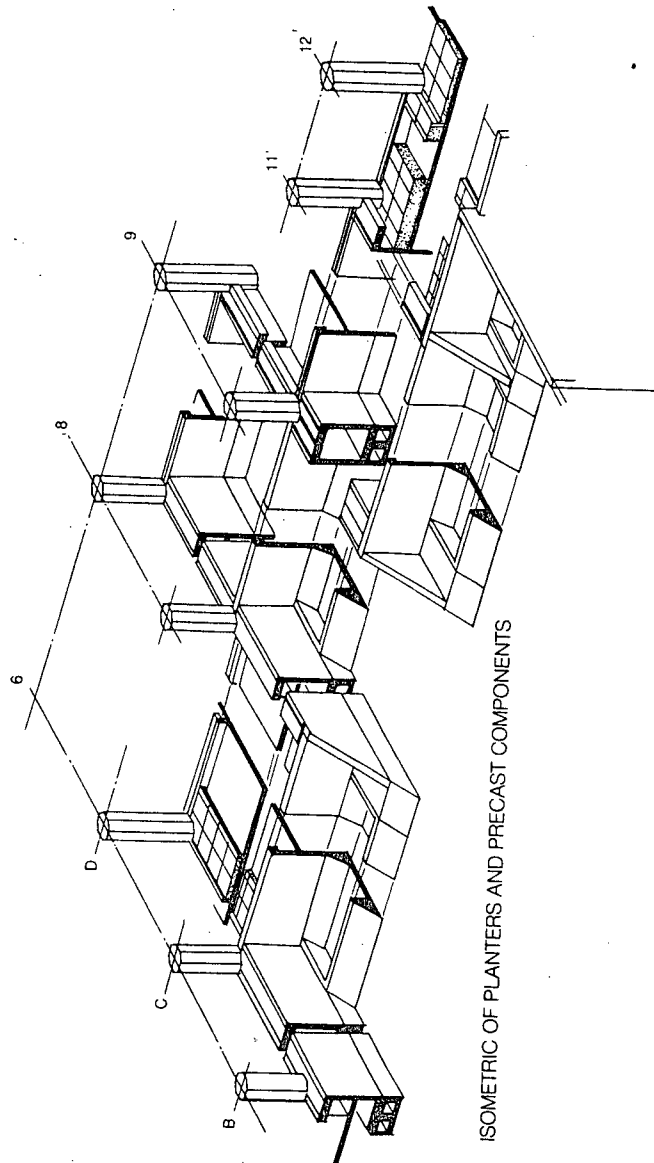
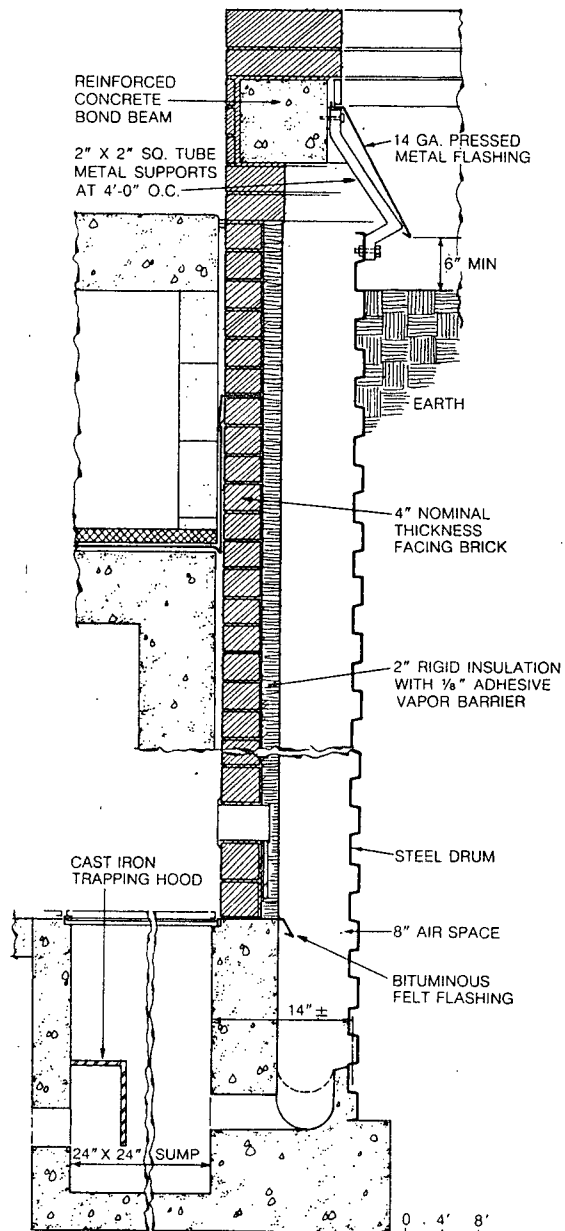


Figure 43 Detail of tree drum
Reproduced with permission from
Rhône and Iredale Architects



DETAIL SECTION THROUGH TREE DRUM AT A & B

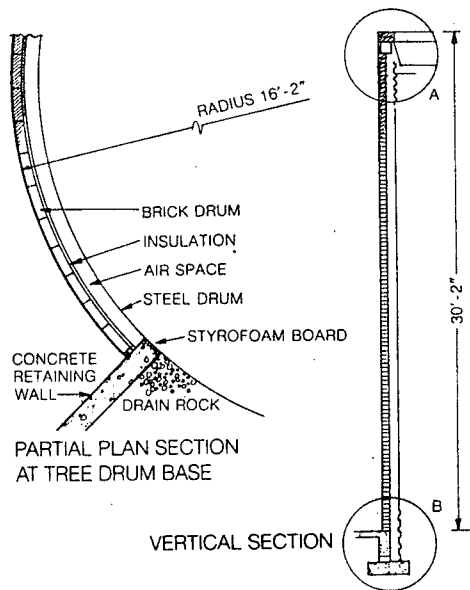


Figure 44 Section of roof
Reproduced with permission from
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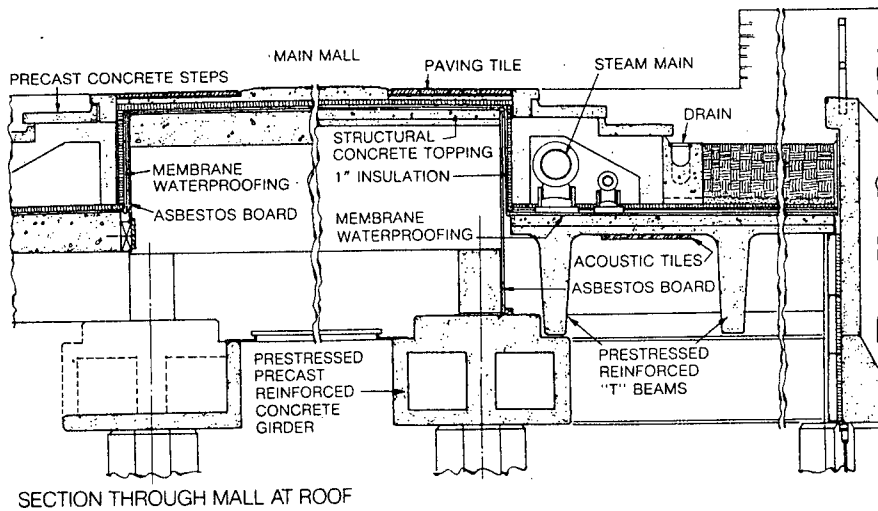


Figure 45 Symbol

The four caissons with the oaks are a symbol used on the Sedge-
wick Library information sheet
to identify the library on
campus

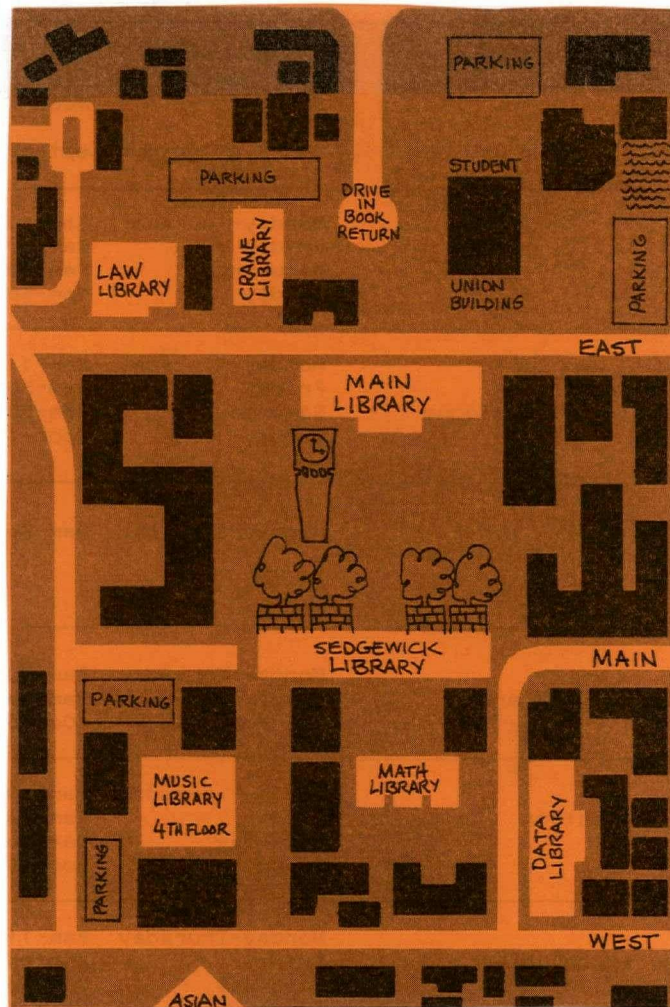


Figure 46 Facade



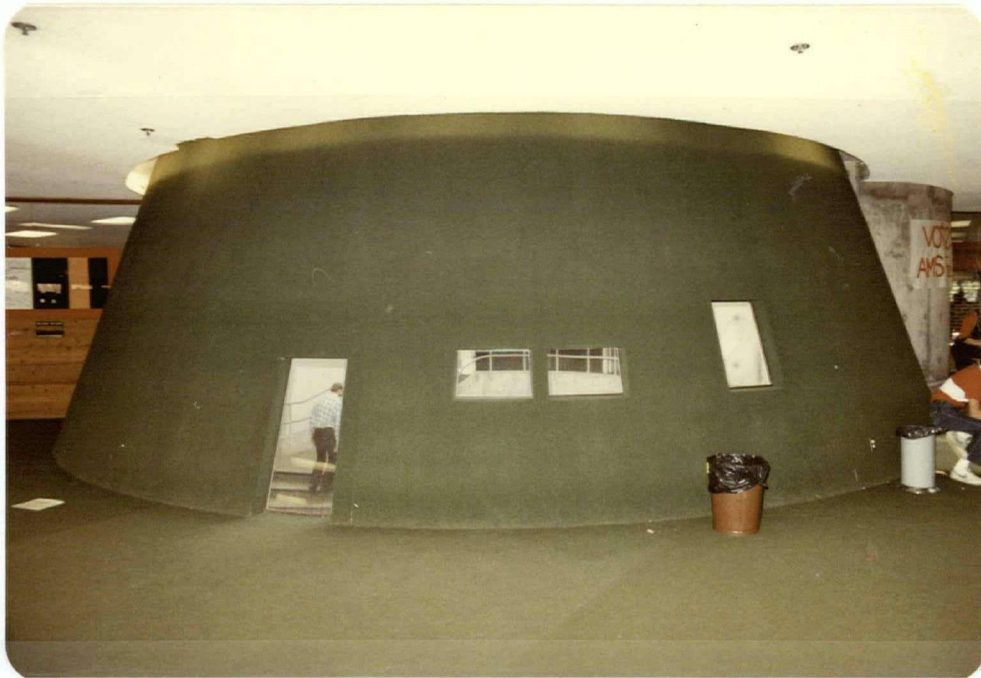


Figure 47 Main stairway



Figure 48 Facade

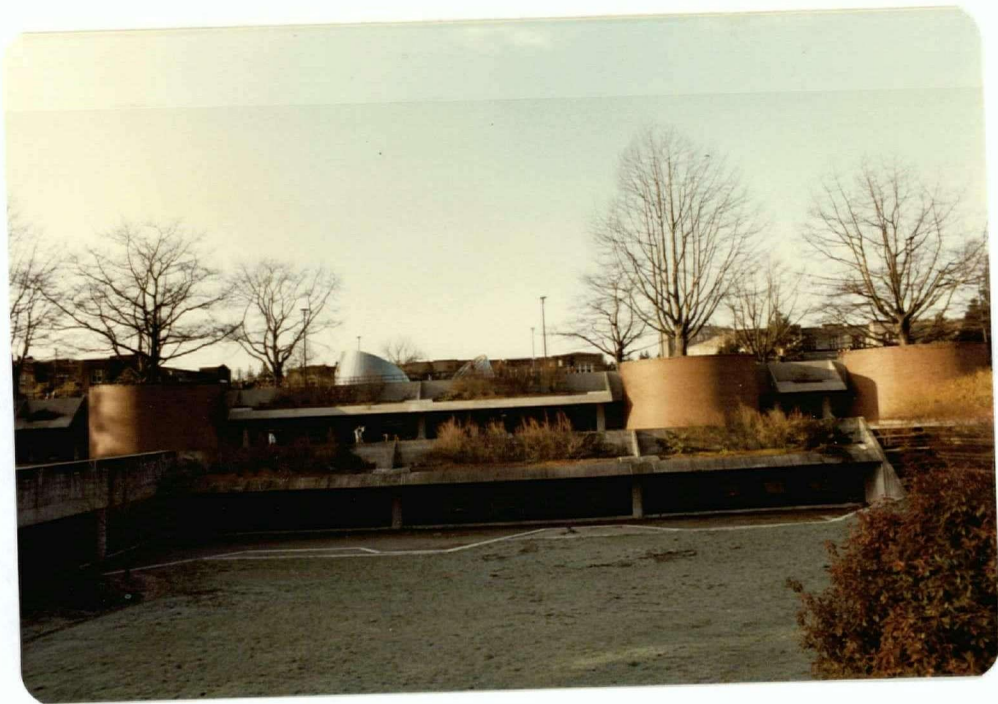




Figure 49 Roof and facade detail



Figure 50 Bird's-eye view





Figure 51 Caissons and Planters



Figure 52 Planter detail



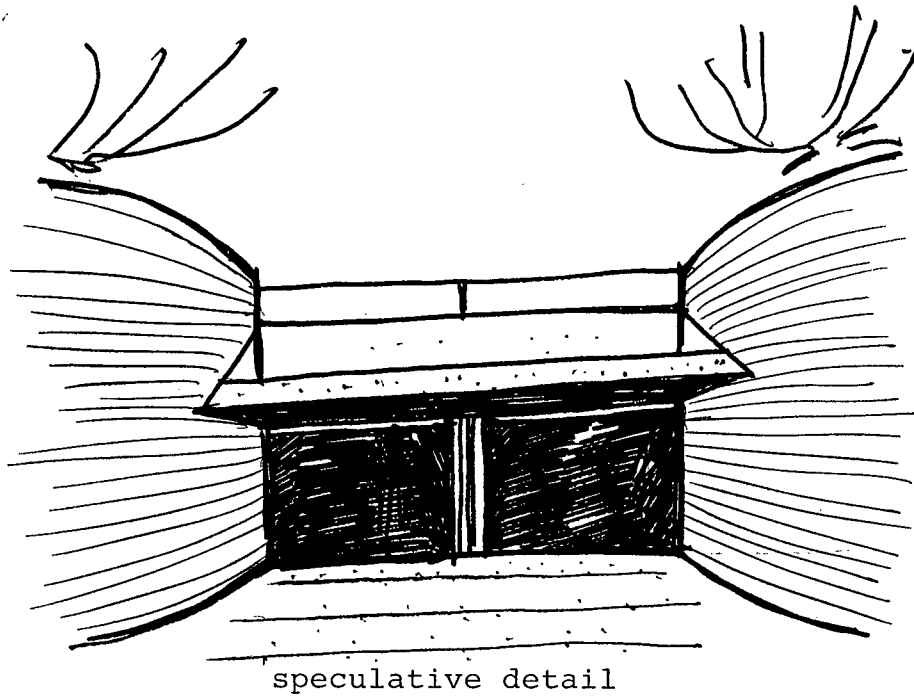


Figure 53 Planter detail

