

To Conclude

The use of architecture as more than a solution for physical or functional needs is the intention of this project. The hope that a carefully thought out architectural intervention can beget changes in attitudes through social interaction is the inspiration behind this Entertainment Center.

“Architecture as social modifier” is an idea that must be explored more often during the creative stages of our projects, taking into consideration such diverse components as urban condition and location of services; flexibility and structure; openness and privacy; and the mundane and spiritual. Through the use of technologically advanced building concepts, the return of more traditional values such as civic pride and community life is promoted. The concept of flexibility as a means to assure an interaction of events and time ever explored. Thus also making it an environmentally friendly structure that can adapt to new conditions as opposed to having to be destroyed and rebuilt every time. I believe that this entertainment center would become that transition point that will eventually enhance the quality of life in Blacksburg and will achieve the higher goals that architecture should strive for and that are so often forgotten.

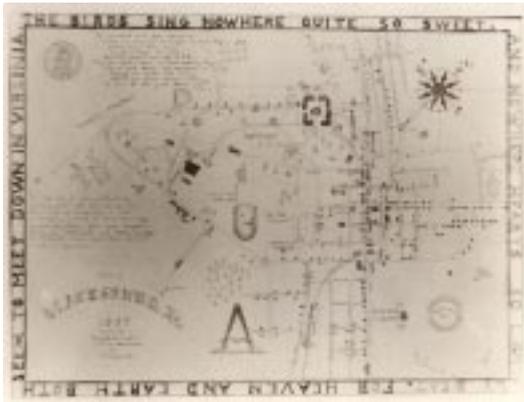


Appendix 1

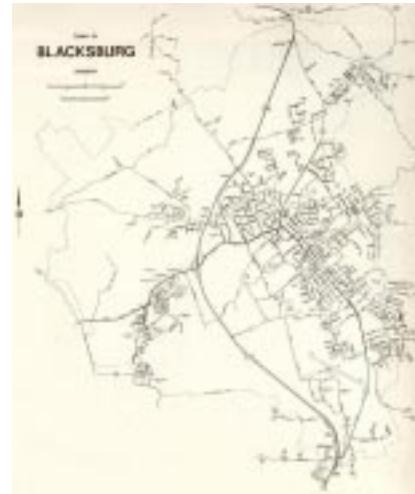
Historical Background



Blacksburg in 1853, sketched by Lewis Miller.



Blacksburg in 1927, drawn by Lucy Lee Lancaster.



Blacksburg today.

Blacksburg was established on January 13, 1798. But it was the year before when William Black gave thirty-eight and three fourths acres on the border between his land and his brother, John's, to establish a village. He laid out a small grid of streets and lots at a forty-five-degree angle towards the north-south orientation. At the northwest the boundary was Stroubles Creek near Jackson Street, and at the southeast side John Black's property. The angle allowed streets and buildings in the village to benefit from natural light, which would melt snow and dry muddy streets quickly. This grid consisted of sixteen blocks, each block a four square arrangement of half acre lots and each separated from the other by cross streets. The advantage of this configuration was that every lot had a corner and its form would allow room for outbuildings, workshops and gardens. Also, the cross streets were used as firebreaks. The construction on the lot was also restricted to houses of wood, stone or brick of seventy square feet as a minimum and with a brick or stone chimney. This construction was required to be finished within two years, but in 1806 it changed to five years and this time frame would also include any renovation or improvement to the house.

The same year the town was established, two buildings were constructed, a store at the corner of Main Street and Jackson Street and a meeting place for the Methodist Church at the corner of Church Street and Lee Street. In the eighteenth century the architecture of the town took a turn to Greek Revival, and it avoided the fussy ornamentation of the preceding Federal style. In 1851 the Methodist Church established the Olin and Preston Institute, a private school for boys. Later it was known as the Preston and Olin Institute. From 1861-1865 the Civil War took over Virginia, but afterward Blacksburg was reconstructed very quickly since it was chosen as the town for the new land-grant college.



Olin and Preston Building in 1870, where General Crook had his headquarter throughout the Civil War.

Since then the town has grown with it, expanding outside-12--12-the sixteen-block grid, at the beginning with business and later with houses. In 1872 the Preston and Olin Institute was recognized and became the public land-grant school, Virginia Agricultural and Mechanical College.

After 1872 the entertainment and recreation of the town consisted in church-related activities, and those held by the college, such as commencement exercises, Lee and Maury society debates, lectures, band concerts and dances. By the 1890's the college added a sports and a graduate program, and at the same time it took the name Virginia Agricultural and Mechanical College and Polytechnic.



The 1910 Lyric Theater.



The 1930 fourth Lyric Theater.

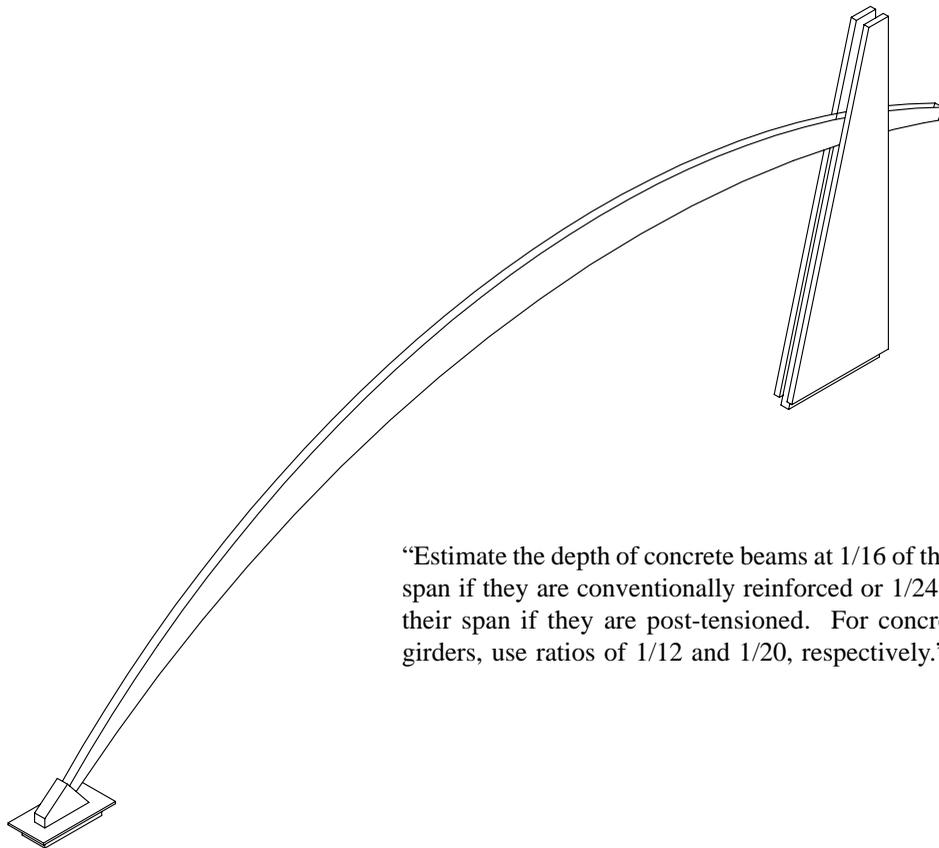
By 1900's the entertainment in the town took another step with the construction of the first Lyric theater at the corner of Wilson and Main Street. A second theater was created at the corner of Main Street and Jackson, and later a third one in Main Street the site of what is today's Sharkeys. Even a fourth Lyric theater was built at College Avenue and it remains today as a place of entertainment. In 1944 the School became Virginia Polytechnic Institute, and considered a state university in 1970. The students meanwhile were not only boys or Americans since international students were integrated to the Blacksburg University life. This created the opportunity for the town to learn about other places, as well as sharing with all the students in the area. Students came from different areas such as Europe, Asia and the Caribbean, and because of these activities the International Fair was organized on a Spring Saturday. Other activities were created to unify the university life with the town, such as the Steppin' Out Street Fair featuring crafts, music and food. Both of them are located on Main Street, College Avenue and Draper Road.

Appendix 2 Structural Materials

Sitecast Concrete:

Sitecast concrete beams are not usually used because of the cost of its three important components: concrete, reinforcing steel and formwork. But this system allows a great margin of strength and stiffness; and with it many possibilities.

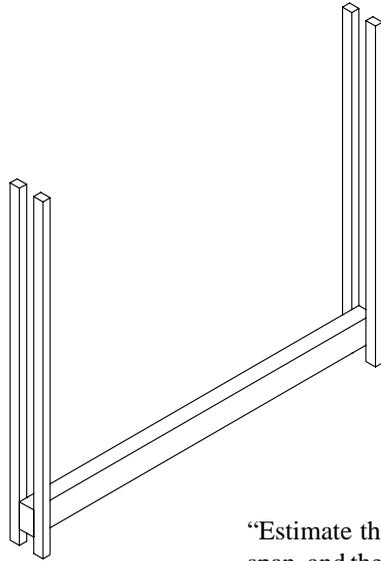
Designing an economical sitecast reinforced concrete structure includes a cost evaluation of its three components. Concrete is the lowest cost of the three and the formwork the most costly. The first consideration would be to simplify and standardize the formwork. A repetitive, identical structure and spacing size allows the same formwork to be used over and over again, making it more economical. A formwork material is also considered not only on the economical factor but in the finish surface as well. They can be made out of wood, metal or plastic to create a good surface finish, there are two possibilities. One to remove the concrete that causes the blemishes and expose the aggregate or to superimpose a pattern or profile that will draw the attention away from the blemish.



“Estimate the depth of concrete beams at $1/16$ of their span if they are conventionally reinforced or $1/24$ of their span if they are post-tensioned. For concrete girders, use ratios of $1/12$ and $1/20$, respectively.”

Building Code on Concrete

Concrete structures are fire resistant, and it loses its strength slowly as the hydrating water is being evaporated by the heat. The reinforcing elements last longer since the concrete protects the steel through a long period of time.



“To estimate the size of a steel column, add up the total roof and floor area supported by the column...Steel column shapes are usually square or nearly square in proportion.”

“Estimate the depth of the steel beam at $1/20$ of their span, and the depth of steel girders at $1/15$ of their span. The width of a beam or girder is usually $1/3$ to $1/2$ of its depth...”

Steel Structure

Steel alone has useful tensile strength. It is the most dense of the structural materials and also the one that produces the lightest structures for spanning the greatest distances. High-tensile strength is the material for a fascinating variety of different and almost unlimited distances. Steel can frame almost any shape, including irregular angles and curves. But steel produces only a frame, unlike other materials that complete an enclosure. Steel is easily connected with glass, masonry, and panel as a system of enclosure.

Building Code on Steel

Steel construction depends on a degree of fire-proofing treatment needed.

Appendix 3 Case Studies

1. Ballrooms

a. Kingwest Leisure Center

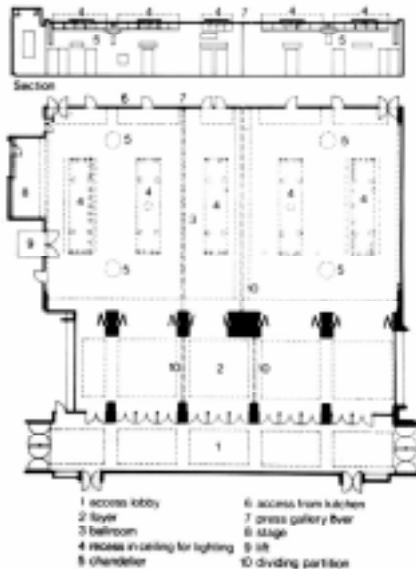
Opened in 1965, consist of three cinemas, a ballroom, a cabaret restaurant and a discotheque. The ballroom is 12,400 sq.ft. including the balcony, with a dancing area of 2,000 sq.ft. while the rest is for banquets or dinner/dance functions. The ballroom has the stage on the center and it could be arrange as an auditorium or conference, seating 950 people.

There are also three cinemas located on the upper floor, the Jenkinson cabaret bar with the restaurant in the ground level, and the discotheque in the basement.



b. The Palace Suite, Royal Garden Hotel, London

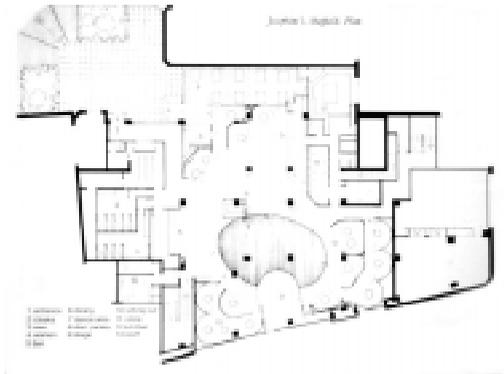
This ballroom consist of a long space (94 ft. x 53 ft.) divisible into two spaces by a sound proof partition. A kitchen extends through the whole length of the room, and the foyer is located at the opposite side occupying the same length. This reception foyer can also be subdivided, to give privacy when ever its necessary. And a recessed area can be prepared as a stage. The lighting in the main area of the ballrooms is located in the ceiling wells. The majority of the floor area is constructed as a dance floor. Its capacity for dining is 450 and for dinner/dance 420, for a banquet 600, for cocktail gathering 1,000, for auditorium 900 and for receptions 1,500 people.



2. Discotheque:

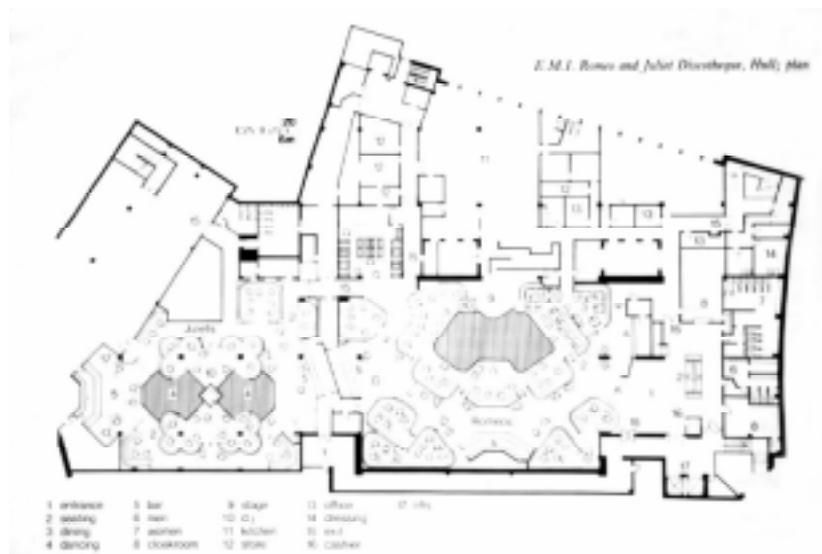
a. Josephine's Night Club, Sheffield

The club consists of a discotheque, two bars, a wine bar and a restaurant. The layout is in various floor levels and lower ceiling over the sitting area includes fixed seating area. The restaurant is located at one end of the club, and it's separated from the main area. The sitting area includes fixed seating on the surrounds of the space, and loose sittings on the rest of the area. The sound and lights (decorative and special effects) is control from the disc jockey's console close to the dance floor.



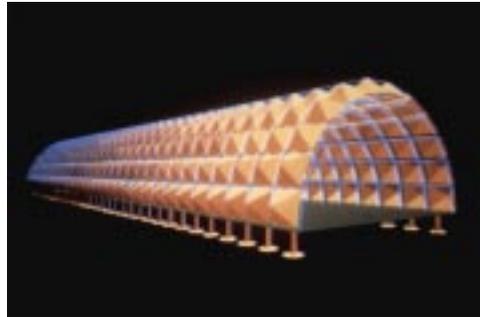
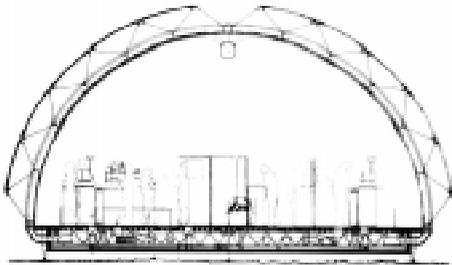
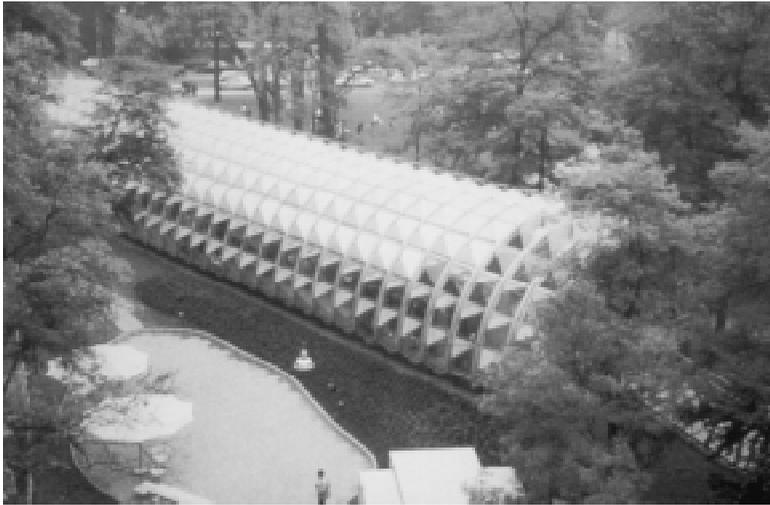
b. E. M. I. 'Romeo and Juliet', Hull, Yorkshire

The layout consist of two dance areas, each one used for different purposes, and conditions of the party. In the first one, Romeo, the main dance area is a multi-level floor, providing view to the stage, it includes sitting areas for different control of sound (close, remote with less sound, an enclose spaces). Three areas; a bar, a restaurant and a wine bar, the first two close to the stage and dancing area serve this area. The second discotheque, Juliet, which could be use for private functions. It has a central console between two dance areas, with two bars and banquet seating.

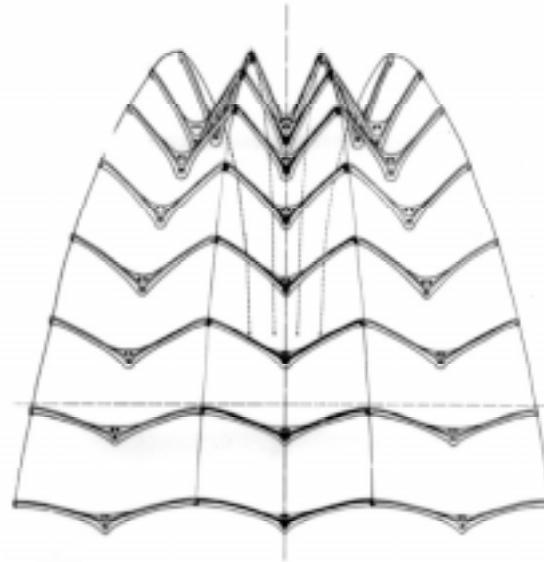
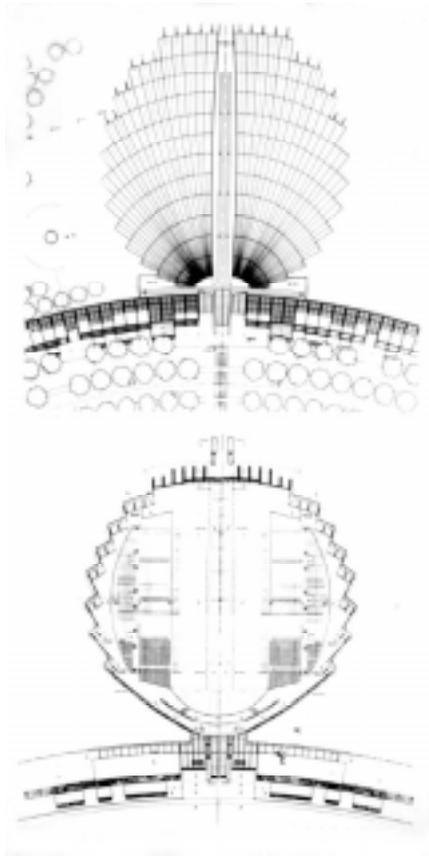
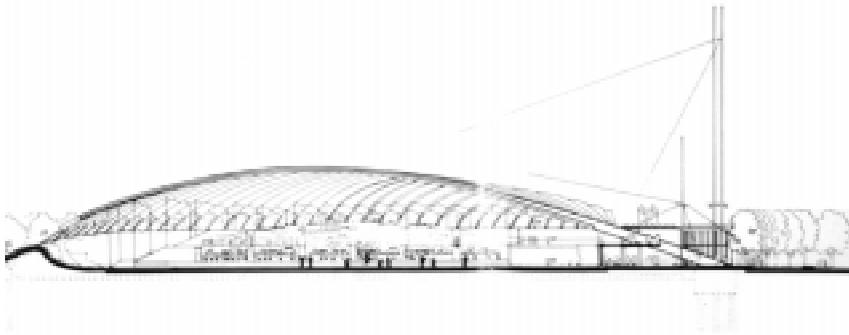


Appendix 4 Precedents

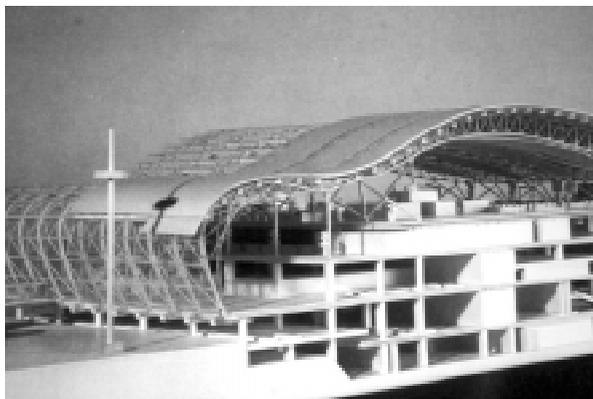
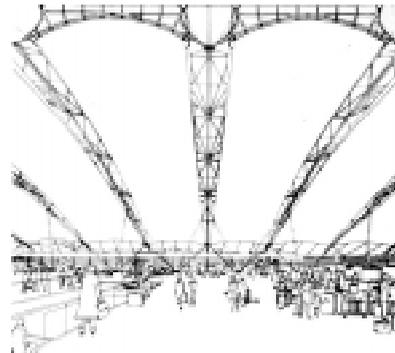
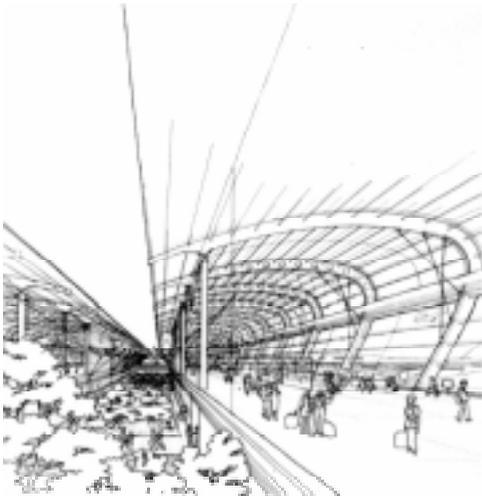
1. IMB Traveling Exhibition (1982-1986)
Renzo Piano



2. Sport Center, Ravenna (1986)
Renzo Piano



3. Kansai International Airport, Osaka, Japan (1988)
Renzo Piano



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