ORDER AND DISORDER -
A HOTEL IN ALEXANDRIA, VIRGINIA

by Claude René Walliser

Thesis submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfilment of the requirements for the degree of

MASTER OF ARCHITECTURE

Approved:

Jain Holt, Chairman

Scott Poole

James W. Ritter

Prepared at the Washington- Alexandria center and Basel, for Blacksburg, Virginia August 1995

Order without disorder is torpidity. Disorder without order is chaos. Together order and disorder give spirit.

Fig. 1 Spiral Galaxy in the Antlia constellation
I tried to find what order is. I was exited about it, and I wrote many words of what order is. Every time I wrote something, I felt it wasn't quite enough. If I had covered, say, two thousand pages with just words of what order is, I would not be satisfied with this statement. And then I stopped by not saying what it is, just saying, "Order is." And somehow I wasn't sure it was complete until I asked somebody, and the person I asked said, "You must stop right here. It's marvellous; just stop here, saying, order is ".

The words of Louis I. Kahn

Fig. 2  Temple of Hera, Paestum. Fifth century
ACKNOWLEDGEMENT

To my parents, my professors and my friends and especially Craig, without whose encouragement this work would not be possible.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE PAGE</td>
<td>i</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>iii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>iv</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>Thesis</td>
<td>1-3</td>
</tr>
<tr>
<td>Decision for a hotel</td>
<td>4</td>
</tr>
<tr>
<td>History of building type</td>
<td>5-7</td>
</tr>
<tr>
<td>SITE</td>
<td></td>
</tr>
<tr>
<td>History of Alexandria</td>
<td>8</td>
</tr>
<tr>
<td>Conditions and guidelines</td>
<td>9</td>
</tr>
<tr>
<td>DESIGN OBJECTIVE</td>
<td></td>
</tr>
<tr>
<td>Master plan</td>
<td>10</td>
</tr>
<tr>
<td>Hotel</td>
<td>11</td>
</tr>
<tr>
<td>DESIGN PROPOSAL</td>
<td></td>
</tr>
<tr>
<td>Photos study models</td>
<td>12-14</td>
</tr>
<tr>
<td>Site plans</td>
<td>15-16</td>
</tr>
<tr>
<td>Floor plans</td>
<td>17-23</td>
</tr>
<tr>
<td>Guestroom</td>
<td>24</td>
</tr>
<tr>
<td>Elevations and sections</td>
<td>25-28</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>29</td>
</tr>
<tr>
<td>INDEX OF ILLUSTRATIONS</td>
<td>30</td>
</tr>
<tr>
<td>SELECTED BIBLIOGRAPHY</td>
<td>31</td>
</tr>
<tr>
<td>VITA</td>
<td>32</td>
</tr>
</tbody>
</table>

Fig. 4 Birds eye view at site
INTRODUCTION

THESIS

What comprises our world is a subtle balance of elements. Because matter relates to itself, it forms our universe. Since everything is in relation forces interact. The resulting flow of energy gives our being and the cosmic system life. In the galaxies, we see this constant flow of energy as the changing constellations of the solar systems (Fig. 1). The dynamics we observe follows a certain order and structure. They are the fundamental essence of any organized physical or mental system. Order is more than just the reduction of geometrical patterns or standardization of elements. In fact we perceive order as a basic principle of any system which changes. A basic law we observe is that in a closed system nature minimizes the flow of energy. The energy of every system falls to achieve a stable condition unless external forces alter that condition.

In the absence of order we are faced with disorder. Disorder can be defined as entropy, where every kind of order is abandoned. There is no inherent organization of elements. Disorder leaves all alterations to the realm of the unpredictable. It follows its own laws. As we live in an ordered system it is very difficult to comprehend disorder. At best we simply see disorder as the antithesis of order.

In search for absolutes we discover the poles of order and disorder. They oppose but at the same time one could not exist without the other. In interacting they create a flow which might be called the spirit of life. Order without disorder gives a spiritless boredom. Disorder without order makes a chaotic world. Having both creates something essential and alive.

Man senses harmony in the natural elements. Mankind has tried to discover the laws of harmony. In a diagrammatic analysis of a daisy we find harmonious laws of proportion (Fig. 5, 6). The Golden Proportion is revealed as one of the basic harmonic patterns of nature. We find it in plants, shells and organisms. Often the patterns of natural growth are not perfectly ordered. In the example of the daisy, the petals are not exactly alike and in fact they do not array themselves in a perfect order. This imperfection of life appears to us as an interaction between the ordered patterns and the imperfections which are imposed upon them.

Man's urge to find the laws of harmony has been frustrating because the more he searches the more he finds that the truth lies behind a veil of the unknown. What we can best conclude is: harmony is created through the presence of order and disorder.

A method of ordering elements is to use geometry. It is logical and rational and we are not only able to use it but also to describe it. An elementary geometric relationship is the Golden Proportion. In some early Greek buildings we find that order is expressed by a canon of proportions. In analyzing the plan and elevation of the Parthenon we discover that the ordering system is the Golden Proportion (Fig. 7). Geometric proportions can be used as an ordering tool, but unfortunately they lack the spirit of life, a poetic quality. We must add a spiritual quality to it.

A striving force behind our urge to define our place on earth, our will is incorporated in the environment we have chosen to define. The environment combined with material means is a physical manifestation of our will. By this process architecture is born. From the microcosmos of our personality we are able to reflect and to dream of the macrocosmos. The temple of Segesta expresses not only the will to claim a part of the landscape but also a place for us to make offerings to the gods (Fig. 8, 9).

Since men and women are social beings they have established rules for living together. Living under commonly shared conventions was the organizational principle of the traditional city. The character of the city is a social phenomenon before it is an architectural phenomenon (Fig. 10). The founding of a new city generates new order and structure.

The modern city has increasingly lost its specific character, which inhabitants identified with. Functional and technical criteria, such as traffic and usage planning have become the generator of modern towns. Unfortunately, they have created cities of isolated public spaces. It is to these spaces that architects and city planners must address themselves. Hopefully expressing a current context they can find solutions within the tradition and the modernity of the city.

Architecture within an urban context requires a basic understanding of the factors which define the character of a city. We have to
understand the historical development, the environmental situation and the social structure of the city. A single building will always be part of the larger context of the city, interwoven into the fabric of streets and other buildings. A city is perceived through its physical appearance, its symbolic meaning, as well as by the use of the buildings and their adjacent outdoor spaces. The physical appearance of the city is observed by the relationship of the streets to the buildings and by the relationship of the streets and buildings to the landscape.

These were the first thoughts upon which I in part formed my understanding of architecture. The design principle for this work is “process oriented”. My idea was to pursue and integrate ideas which developed after the design process has already started. Allowing myself to pursue and balance personal ideas, with specific builder/user needs, conditions and regulations of the location. I hoped to create a holistic design. For this investigation order is understood not only in terms of its mathematical or geometrical qualities, but also in terms of its compositional qualities. For example, orderliness, a regularity of form with possibly one or more exceptions. Within a compositional form order creates hierarchical structures. A form of high orderliness is symmetrical and regular, with few exceptions. One has to create a harmonious balance in which the sum of the parts is experienced as the total of those parts, that is, the sum is shifted to a higher order.

A historical example to illustrate compositional possibilities of order and exception is in the work of Frank Lloyd Wright (FLW). His early buildings were primarily based on the traditional American land house where he developed his notion of architecture. The fireplace as the heart of the building was the focal point for social activities and spatial arrangements. His indoor and outdoor spaces extended from this point. The fireplace anchored the whole building into the ground. By shifting the main axes and expanding parts of the house into the landscape, he started to introduce a new dynamic composition into current architecture. Carefully studied proportions and well-balanced asymmetries reflect his interest for a plastic approach to architecture and show the possibility of producing a harmony of order and exception. One of the early buildings of FLW, in which the aforementioned properties are clearly expressed is the Ward W. Willits house (Fig. 11,12). His concepts are reflected in the “open plan”. The segregation of and the single function of the rooms (living, dining, cooking) becomes loosely defined. This layout offered the possibility to obtain more spaciousness in small buildings.

Another source of inspiration is the work of “De Stijl”. Founded 1917 in Holland, their goal was to create a valid new consciousness. The painters of the group rejected natural depiction in favour of abstract composition. The late paintings of Piet Mondrian were reduced to a grid of rectangular black lines with infills of primary colours (Fig. 13). Because the placing and the amount of colour was carefully considered, the boundary of the painting lost significance; therefore it could be expanded to be a part of a larger framework. It was for Mondrian, a symbolic image of a new consciousness. One of the architectural examples of the philosophical ideas of “De Stijl” is the Schröder House by Gerrit Rietveld (Fig. 14-16). Rietveld said that the house is an attempt to achieve the same goal three-dimensionally that Mondrian achieved two-dimensionally. The contrast of the black lines and the coloured rectangles in Mondrian’s painting was translated into architecture by opposing the “openness” of glass to the “closeness” of wall. In elevation the building is a square. It is disrupted by mutually balanced horizontal and vertical planes. The independent compositional elements (wall segments, balconies, lintels, windows), counterbalance each other in a dynamic relationship. The architectural result is not only highly unified among its compositional elements but also creates a strong impact on the viewer.

Frank Lloyd Wright’s buildings were an example for “De Stijl’s” work. The former’s importance can be read in a statement by Pieter Oud, one of the founding members of the group. “With the destruction of the box Frank Lloyd Wright laid the foundation for a new plasticity in architecture. The masses of his buildings expand in all directions.”

The compositional considerations of Frank Lloyd Wright’s prairie houses and Piet Mondrian’s paintings are advanced in Mies van der Rohe’s design for a brick country...
INTRODUCTION

house (Fig. 17,18). His conception of continuous space is based on neoplastic principles. The walls are treated as panels, which intrude into space. Since the only way to experience the ensemble is to move around the building, a fourth-dimensional aspect (time) appears in his architecture.

A further compositional balance of elements may be seen in the famous garden of contemplation at Ryoan-ji, Kyoto (Fig. 19,20). In the enclosed courtyard of a fifteenth century Zen temple the yard is filled with luminous quartz. To produce a basin depicting a sea with islands they arranged fifteen rocks in five groups of two, three or five stones. The groups are composed within themselves and appear to be distributed over the rectangular surface in a perfectly arranged order. Although the relationship of the five groups is not definable and their locations display no hierarchical pattern, their interrelation is perfectly harmonious.

Generally, an architectural theme can be expressed through three approaches to design. Using the approach of constructive consideration we are able to interpret constructive necessity. Using the approach of expression of material we can demonstrate the inherent qualities of the material. Using the approach of formal consideration we are able to demonstrate the poetic qualities of rhythm and form.

The design of a hotel is especially suited for exploring the theme of order and exception obviously because the hotel rooms can be considered as ordered and its public services as exceptional. In this thesis the theme is underlined by formal considerations but finally expressed through composition that is, rhythm and form expressed by evaluating composition. Not to neglect the ordered structural / functional requirements of the hotel, constructive considerations were used in which repetitive elements such as walls and pillars defined the structure in which functional requirements found their place. As exceptions the public services alter the order at specific places within the hotel, and in doing so enforce their character. Within an ordered rhythm they express tension, interference and distortion and can reinforce an individual idea of what a hotel symbolizes.

My goal was to achieve a well-balanced dynamic relationship of elements. The dynamics of relationship can only be described with difficulty in rational terms or by acquired standards. Only by an intuitive sense of what goes well together can one see that a certain composition of shapes are orderly, or disorderly. Such judgments are an intuitive evaluation of interrelated visual forces.

Designing within an urban context means, to respect and to enforce the quality of the existing outdoor space and building mass. In a bird’s eye view of Alexandria, the building and street pattern is clearly recognizable (Fig. 21). This order has been disrupted. The design of the hotel and office buildings had to take into consideration both the layout of the streets of Old Town Alexandria and the area around the King Street Metro Station. Here possibilities for building layouts were sketched and evaluated for composition until, one was selected for the following reasons: the row of office buildings along Duke Street enhances the orthogonal street layout of the city; the "T"-shaped hotel corresponds to the unfinished plaza in that the second main wing is curved; the irregular form created by the junction of a straight wing and a curved wing refers to the undefined space in front of the metro station; all the proposed buildings have some independence and completeness of their own, and have a relation not only within themselves but also within a larger urban context.

Architectural form can either be considered at a rational level, or it can be considered within a poetic image. In outlining an architectural theme by incorporating my philosophy of architecture and my knowledge of contemporary urban design, helped provide the basis for this thesis.
DECISION FOR A HOTEL

In researching the history of the hotel, an unique mixture of luxury and competition emerged. Commonly, customers expected personal service and special attention separate from their everyday activities.

More than any other building type the contemporary hotel has the greatest variety of users. Because of the different demands of the customers the hotel can be viewed as a small city with its residential, commercial, entertainment, recreational and office uses. Because our world has become more complex, hotels had to specialize to offer specific customer needs.

After reviewing my preliminary research, I felt convinced that this building type would be an excellent example in which to pursue my investigations (Fig. 22). The next step was to find the most appropriate type of hotel and site for a thesis project. Research at the City Planning Office of Alexandria made it obvious that there was a demand for a medium size hotel with conference facilities. The site suggested by Jaan Holt was near the King Street Metro Station and Duke Street.
HISTORY OF BUILDING TYPE

The meaning of the word hotel stems from the Medieval Latin word "hospitale". In old French it was "ostelerie" and by 1500 the words "hosteler" and "ostler" became the synonym for an inn servant. The inn, as the predecessor of the hotel, was usually a common house with a dining and sleeping room for all the guests. Private rooms were almost unknown and if there were any, then they were only for distinguished guests.

Because of the needs the building had to fulfill, it gradually started to form a typical configuration of the layout of the rooms. Around 1550 English innkeepers set a simple layout for their inns. This layout became the standard for European and American inns. Arriving from the street, the guest entered the building through an arched carriageway. This led into a small cobbled court, which was closed off along two sides by galleries with the bedrooms behind. In the rear were the stables for the horses. All public rooms, as well as the kitchen, were facing the street. In England, a few of the medieval inns would survive through the centuries, like the Angel Inn in Grantham (Fig. 23) or the George Inn in Southwark (Fig. 24).

Although the hotel developed out of the medieval inn, it soon surpassed it in size and complexity. The first inns added an assembly room for the social needs of the town or village. The addition of public rooms distinguished a hotel from an inn. The emergence of the hotel as we know it today began at the end of the 18th century. The establishment of the Industrial Revolution stimulated the foundation of new hotels not only in England but also in Europe and America. Some hotels started to integrate a large assembly or ballroom as part of the building structure. Additional services apart from dining and sleeping accommodation were the coffee room, sitting room, parlor and bar.

Jefferson Williamson, a former newspaperman, in his anecdotal book "The American Hotel" writes: It took 12,000 years for innkeepers to progress to the point of having 30 rooms under one roof. With the rapid industrial development of the 19th century and its resulting mobility, it took only 100 years to increase the number of rooms under one roof to 3,000.

From 1807-09 Friedrich Weinbrenner converted a convent into one of the first hotels of the new type, the "Badischer Hof" at Baden Baden. This resting place for the traveler had the amenities one could expect at that time. It had 48 bedrooms on three floors and a large ballroom with a balcony and a movable stage. There was a library with a reading room and as a novelty, a bathing establishment with 28 cabins. A comparable English hotel to the "Badischer Hof" was the Royal Hotel at Plymouth, built from 1811-19 by John Foulston (Fig. 25, 26). This building with its 50 bedrooms filled a city block. Apart from the usual hotel functions it had a theater and an Athenaeum, which was home to a philosophical society.

The hotel of that time was a composite of different building parts and functioned as a traditional inn. The main building and its adjoining wings surrounded the central courtyard. It was closed off at the back by stables. It was not until later that an expression of the "hotel" started to develop in that the expansion of scale allowed the architects to express grandeur and elegance. For example it became fashionable to design the main facade with a sense of order by adding a portico with Greek columns.

A new era of hotel design began, when the grand hotel started to appear, exemplified by the City Hotel in New York City and the Exchange Coffee House in Boston. The City Hotel, which was built from 1794-96 had five floors with a total of 73 rooms. The Exchange Coffee House, built from 1806-09 by Asher Benjamin surpassed the former with a total of seven floors and 200 apartments. The first "atrium hotel".

The hotel became a symbol for wealth and prosperity and a focal point for social activity. While in Europe the lavish life of the wealthy hotel world was dominated by the nobility, in America it was by new middle and upper classes. The wealthy had made their fortune in industry or as owners of one or more huge ranches. Between larger cities competitions started for the biggest and most extravagant hotel. The three most monumental hotels of that time were in the United States. The first to open its doors was Barnum's City Hotel in Baltimore built 1825-26. Of interest to point out is that it had gaslight in some of the rooms. It was soon surpassed by the first luxury downtown hotel, the Tremont in Boston, built 1827-30 (Fig. 27, 28). It demonstrated an elegance
and grandeur that had never been seen before. Its public rooms were fitted with gas lighting, indoor toilets and door locks. With "à la carte" French menus in the restaurant and its 173 rooms it was to be one of the largest and noblest hotels of its time. A few years later, in 1836, the Astor House in New York opened up. Its appearance was rather discreet, as the front facade was designed in a reticent Grecian style but in the contest of size and standard, it superseded all others with 309 rooms. Lighting was provided completely by gas.

The "holiday or resort hotel" developed in America, at the beginning of the 19th century. Increased mobility allowed the wealthy to spend their vacation in resorts. Accommodation was offered in hotels, which were built with or next to an existing spa. These buildings were usually of wood, one or two storeys high and with long verandas in front. One of the first hotels of this new type, was the Congress Hotel on Cape May, New Jersey, built 1812. Only one storey high it had an extension of 200 feet. Unfortunately, after two years of operation it burned down. Another example, which exists still, is the Grand Hotel (by Mason & Rice) on Mackinac Island, Michigan (Fig. 29). Offering room for 1000 guests it became the vacation place for some of the richest families of the country. The largest building structure that was erected at that time was the Mount Vernon Hotel on Cape May (Fig. 30). It was enormous, even though only the front and one wing were completed. Starting operation in 1853, a fire destroyed it three years later. It looked more like a fortress than a hotel. Planned with 482 rooms, it would have offered space for 2,100 guests. Every bedroom had its own bathroom.

An important factor in the development of the hotel was the building of the railroad. In the 1840's the train started to replace the horse and buggy. With the spread of the railroad westward, new cities began to grow and even larger hotels were erected. The growth of the railroad especially pushed the development of the resort hotel.

In England and Europe the trend in hotel design tended towards improving the amenities of the contemporary hotel. Unlike American hotels European hotels offered a great number of suites for families, single men or women. One of the finest Early Victorian English hotels was the Queen's Hotel in Cheltenham. It opened in 1838. Designed by R.W. Jearrad as a resort hotel, it was an elegant and distinguished place for wealthy guests (Fig. 31). Comparable were the Meurice and the Bristol in Paris, the Royal Danieli in Venice, the Baur en Ville and the Baur au Lac in Zürich.

Suites hotels attracted a different clientele than hotels which offered single rooms. It was not unusual for a wealthy single person (or couple) to live as a permanent resident in a hotel suite. In this way they could enjoy the luxury and all the amenities the contemporary hotel had to offer, without having to have their own household. A suite might consist of a drawing room, a library, bedrooms and accommodation for servants. Apartment hotels such as the Murray Hill Hotel built 1881-84 and the Chelsea Hotel built 1883-85, both of New York, offered such services.

To increase business, hotels continuously competed. The history of New York hotels gives us a picture of how large the grand hotels became. The Fifth Avenue Hotel built from 1856-59 by Griffith Thomas offered 530 rooms and over 100 suites with bathrooms (Fig. 32). As a novelty the hotel had an elevator for guests. The largest hotel of 1870 was the Grand Central Hotel, which had 650 rooms. It was the merger of the Waldorf built 1890-93 and the Astoria built 1895-97, that made it the first hotel to reach 1000 rooms. Renamed the Waldorf-Astoria, it was 17 storeys high but was unfortunately demolished in 1929 to build the Empire State Building. Another famous competitor was the Astor Hotel built from 1902-04 by Clinton & Russell. It had 600 bedrooms and 400 bathrooms (Fig. 33).

In the nineteenth-century it was possible to classify hotels into the three major types: the city- or downtown hotel, the roadside hotel and the resort hotel. At the beginning of the twentieth century hotels in America had to diversify and recreate themselves to meet the needs of the new business-traveler and middle-class-vacationer market. In New York City the Grand Central Terminal opened its doors as the first mixed-use complex. It included an office building, condominiums and a shopping mall. They all benefited one from the other. Other examples of new types were the boarding house resort (Catskill, New York) the non-profit conference center...
INTRODUCTION (Asilomar, California, 1913) and the medical hotel (Kahler Hotel, Rochester, Minnesota).

In the economic prosperity after World War I, the first hotel boom of the 20th century produced the Statler Hotel in Boston (the first hotel / office building) and Steven's Hotel in Chicago with 3000 rooms (Fig. 34). Douglas, Arizona, is said to have had the first motor hotel or motor court. By the mid-1920's there were about 2000 motor courts. The word “motel” was coined by a Californian and this type of hotel was often close to a major road, offered a parking space in its grounds and very little service besides informal accommodation. Their rates were inexpensive.

The “roaring twenties” boosted the hotel business but by the end of the decade prohibition had caused a net decline. The depression finally forced most US hotels into receivership, and building construction almost completely stopped.

The 1950's saw the second hotel boom of the 20th century. Within a few years the number of hotels doubled and the total number of rooms tripled. Resorts all over the world experienced a sustained development and growth as disposable income rose. During this time, the Club Mediterranée developed their village concept and Holiday Inn introduced their first motel. In Las Vegas casino hotels were erected (unlike in Europe where casino and hotel were typically separated). Because of revenues from the gaming rooms, hotels could offer rooms at a very attractive rate. Airports, as train stations had a century earlier, became attractive areas for hotel development. Airline Companies started to participate. In 1960 Arne Jacobsen designed the SAS Royal Hotel in Copenhagen, Denmark for the Scandinavian Airline System (Fig. 35). This luxury hotel and airline terminal was conceived as a whole. Jacobson was commissioned not only to design the building, but also the interior furniture and accessories.

The mid-1970's experienced the third hotel boom of this century. This time, it was the competition in the business that generated new and creative marketing techniques, which resulted in established motels improving their image. They elaborated by adding pools, meeting rooms and coffee shops. A series of more specialized hotels was marketed. Residential and condominium hotels (Fig. 36), conference centers, convention hotels (Fig. 37), airport hotels, suite hotels, vacation villages, elaborate resort hotels (Fig. 38), health and sport resorts, marina hotels, timesharing and condo resorts, casino / convention resorts and mega hotels are examples. The term "mega hotel" was coined by the Marriott Hotel of Orlando. It merged the destination resort, the convention center and centers for sightseers and business travelers. A decade of hotel expansion around Orlando saw the Headquarters Hotel (Fig. 39) and included Disney's leisure park industry. Determining what distinguishes one hotel type from another can be addressed in terms of guest preferences, specific location, design options, as well as social and cultural implications. Targeting a specific market to determine the function of the hotel is a continuing theme of hotel development.
HISTORY OF ALEXANDRIA

John Alexander, a Scottish merchant and pioneer who gave the town its name, bought the land including the future site of the new town from Robert Howsing in 1674. The patent he bought included six thousand acres of land on and above Great Hunting Creek and up the Potomac River to Anacostia Island. The town of Alexandria was founded in 1749 by an Act of Assembly. The town contained 84 half-acre lots of which 31 were sold at a public sale.

The first boundaries and streets of Alexandria were surveyed in 1748 by John West and by one of his assistants, the young George Washington (Fig. 40). In the tradition of new town planning, the town was laid out in a formal way, with a rigid grid of identical streets. Only at the Potomac River had the town been made. It sorted lots out for a market square, a court house and a prison. Other lots were specified for the building of docks and warehouses. The streets were named. By 1762 all the available lots were occupied and as the town had to be enlarged, another 57 half acre lots were added by an Act of the Virginia Assembly. Alexandria soon developed into an important harbour and shipping center for the trade of tobacco, which at that time was the most important product of the surrounding countryside. Also, a considerable trade of wheat and corn developed with Great Britain and the West Indies. This later on replaced the tobacco trade.

After the Revolution Alexandria was a "bustling place". The town was again enlarged and its public services were improved. Around 1785 Washington Street was graded and paved with stone; sidewalks were laid; oil lamps were placed at every street corner (Fig. 41). In the early Nineteenth Century the town had approximately eight hundred buildings and it was the richest of the cities in Virginia. Although Alexandria was growing very fast, it was beset by catastrophes; yellow fever in 1803 and cholera in 1832, the great fires of 1810 and 1824.

The importance of Alexandria as a seaport and market started to decline with the emergence of the railroad. Around 1835 the means of transportation shifted from water to land. Alexandria missed its chance and did not build railroads until later. In the years to come the town saw a great industrial development, with new enterprises in furniture, brooms, pottery, soap and coaches. In 1852 Alexandria became a city and acquired political independence from its county. Railroads were built linking the city with Washington and the Blue Ridges. Prosperity continued until the Civil War.

Between the Civil War and World War I Alexandria declined as a port. The city started to grow after World War I because of its closeness to the capital city. With the expansion of the Federal Government new government officials needed a place to live. They chose nearby Alexandria and started to buy and restore heritage houses. The influx of new inhabitants was reinforced during World War II. Many "war workers" needed housing. These people were employed by the army and navy installations who had erected factories between Alexandria and Washington. Public and privately sponsored wartime housing for employees of military installations enlarged the city becoming Alexandria's suburbs.

As Alexandria grew during and between the two world wars, the transportation systems to the capital city were improved. The Shirley Highway and the Mount Vernon Memorial Parkway were built. In 1939 the National Airport opened its gates.

Since World War II Alexandria has been exposed to the enormous pressure of urban development because it is a metropolitan area of Washington D.C. The 1950's and 1960's saw a population explosion, which made the area one of the fastest growing in the country. With the annexation of Fairfax County in 1952, Alexandria doubled its size to its present dimensions.

During the last decades, several land use and master plans have been proposed and brought into action in order to control Alexandria's expansion. The main goal was to preserve the historic character of the old town while channeling economic support into specific development areas. In potential growth districts like the Potomac waterfront and King Street Metro Station, small area plans were prepared. They contained specific recommendations of land use, development design, zoning, traffic circulation and public improvements (Fig. 42).

Today, when we see a partial realization of these well thought out plans, it makes Alexandria an extremely desirable place for people to reside and do business. The waterfront has become attractive for commerce and tourism because the torpedo factory and ship landing on the Potomac have been converted into a place where tourists love to congregate. King Street, with its many stores, boutiques and restaurants, has become a major commercial axis. A development with a mixed use of office, hotel, residential and retail space on a site with its proximity to public transit, the beltway and the National Airport would draw new residents and entrepreneurs and help continue Alexandria's positive look to a bustling future.
CONDITIONS AND GUIDELINES

The location of my design proposal is in a new development area between Old Town Alexandria and the residential suburbs. This whole place is in an area of transition between the dense and clear urban pattern of Old Town Alexandria and the undefined sprawl of the residential neighborhoods. The transitional nature of the site is reinforced by the adjacent RF & P Railroad tracks and the Huntington Metro Line.

Driving from the beltway along Duke Street, passing through the outskirts and getting closer to the city, one suddenly catches sight of Alexandria. After crossing the bridge, which spans the railway tracks, the visitor arrives near the location for my thesis design. Although some characteristics of a city gateway are present, plenty of opportunity remains for further development. (Fig. 43). In doing so the edge of the city and its boundaries will be defined more clearly (Fig. 44).

The block containing the site is bordered by Diagonal Road, Reinekers Lane and Duke Street. This forms a triangle, unique within the orthogonal street layout of Old Town Alexandria. The triangle results from the RF & P Railroad tracks which run at an angle to the rectangular street pattern. Other streets in the area follow the stream system of Hooff's Run. Although today mainly covered up, it runs diagonally through the center of the area and connects with Huntington Creek (Fig. 45).

At the back of the site there are two new office buildings. A third one was planned in an earlier development proposal. I have incorporated it into my site analysis. These office buildings confine the back end of the site towards Reineckers Lane. The back of them defines one half of a plaza. The expression of the group is one of isolated objects.

Adjacent to the lot is Duke Street, one of the main axes into Alexandria (Fig. 46). This street defines a strong and hard boundary. It's direction conforms to the orthogonal street layout of Alexandria. The south side of Duke Street, opposite the site, is weakly defined by one-storey retail buildings. The other side of the site, which faces onto Diagonal Road, opens up to the undefined space in front of the King Street Metro Station and the Masonic Temple.

The accessibility of Duke Street to the beltway, as well as the few minutes ride with the Huntington Metro Line from the National Airport to the King Street Metro Station makes the site easily reachable. For a public oriented building, this is an important advantage.

For the architect, this site has many challenging aspects because it is located at the focus of the geometry of Duke Street and Diagonal Road. The characteristic gateway situation, the front opening to the Masonic Temple, the lack of hierarchical architectural elements and the somewhat undefined positive as well as negative space of the surrounding buildings underline these aspects.
MASTER PLAN

Old Town Alexandria's character was well-defined and preserved until economical needs after World War II expanded its boundaries. The development area around the King Street Metro Station is in the transition between the well-defined layout of Old Town and the sprawl of the suburbs. A land use development plan, initiated by the city authorities, was intended to control and regulate the future growth of the area. However, earlier projects grew too quickly, and now, the whole area lacks the relationship between the scale of built form and enclosed space.

One of the goals for this thesis design was to redefine a relationship between building, outdoor space and context. To build along public streets not only means to address this space but also to find a suitable transition between exterior space and the interior of the building. The scale of the buildings has to be designed so that the buildings will either be read as a whole, or be in dialogue with the other buildings, or both. The outdoor space will become comprehensible for the layman by appropriately defining building volumes and spaces (Fig. 47). My suggested use of the proposed buildings conforms to the city's development plan. The plan for the metro station area proposes high intensity mixed use developments combined with buildings with character to bring focus to the area. The thesis design proposes a hotel, a conference center, mixed retail and office space.

This site has many complexities, and I tried to develop a design strategy which addresses its weaknesses, but reinforces its strengths. The gateway character and prominent location of the site demand a clear architectural statement. This building has not only to occupy the entrance to the city, but also to bring its boundaries together. To define a natural gateway, a second project would be needed to serve as a counterpart on the south side of Duke Street. Although presently it is not possible to build such a counterpart from the existing project, a visitor can nevertheless get his bearings.

The geometry of the lot and the hierarchy of the bordering streets should be reflected in the form of the buildings. On the Duke Street side the new office buildings were designed to conform with the Old Town Alexandria grid system. They offer retail space on the first and second floors, office space on the upper floors. Their use reflects the commercial character of the street. When arriving by metro from Washington D.C. or the National Airport, or by car into Duke Street from the beltway, the hotel is readily recognizable and reachable. Of importance is the expression of the hotel building in relationship to the Masonic Temple on the hill, at the end of King Street. In my view it is appropriate to design a hotel front to state its strength of character. The shape should also have a dialogue with the two existing and one proposed buildings on the east side of the block. In closing off the unfinished plaza defined by these buildings, a space sequence is created between Duke Street and Diagonal Road. Walking from Duke Street to Diagonal Road, one experiences a converging entranceway leading into a "semi private" plaza. There outdoor seating is offered in front of the hotel restaurant. Walking farther, one experiences an exit way diverging into the open space in front of the Metro Station.

Public walkways should connect with existing paths. With the hotel next to the King Street Metro Station, pedestrian access to the building was incorporated into the design. The passages through the block help to activate the plaza. The hotel, including its conference center, reserves underground parking for its guests. The office buildings provide no parking for their workers. In my opinion they should use public transit. Public spaces used as parking lots remain an ever present problem. The space in front of the metro station is proposed is to be cleared of short term parking. This would be provided under the plaza. The underground parking accommodates the parking needs of the retail stores on Duke Street.

Fig. 47 Early volumetric study
DESIGN OBJECTIVE

HOTEL

A hotel should be welcoming to a guest for much more than his usual needs of eating and sleeping. My research into building types and sites led me to try and visualize a hotel design with such possibilities. In accordance with the city's demand for meeting and training facilities, I have included a conference center. The hotel and conference center will be supplemented by a restaurant, night-club, exercise rooms and swimming pool. Not only fulfilling the expectations of guests but also correct programming and planning are required for a successful hotel design. To commence to define this hotel building, I have taken the proposed hotel project size of 270 rooms. The critical references for the planning of this hotel are taken from "Hotel Planning and Design" by Walter A. Rutes and Richard H. Penner.

My initial idea for position and "character" of the buildings came from a common building type of Old Town Alexandria, the "row house" (Fig. 48). The placing and bearing of the office buildings is based on this typology. Considerations as to the general contextual needs led me to place the hotel not on the perimeter as row housing would have been.

The design of the hotel can be used to illustrate the distribution and balance of repetitive, unique architectural elements. The external expression of the hotel is usually overwhelmed by the repetition of hotel rooms. Therefore, I found it sensible to divide their number into two wings. By placing the suites at the end of the curved wing, the edge of the building can be articulated and the row of hotel rooms terminated. The hotel's public functions define the exceptional, and sometimes contradictory parts of the building. These elements disrupt a coherent repetitive sequence at defined places and thereby add to their importance. They include the "porte cochere", the staircase to the conference facilities, the entrance to the restaurant, as well as the swimming pool and the night club on the top floor. To balance, but also to maintain a dynamic relationship between the functional needs of the repetitive hotel rooms and the exceptional elements, increased the difficulty of the design task, but also became more interpretative and soluble when understood in terms of order and exception.

I have tried to stay within the tradition of recognizing the hotel as an unique building type designed to evoke the senses of a prospective guest. In agreement with functional / structural requirements the basic shape, volume and position of the building is an answer to the contextual conditions of the site.

The two primary functions, hotel and conference center, have been kept separate. In the hotel, the more immediate needs of the individual are catered for whereas in the conference center groups must be catered for. Within this concept I gained the flexibility to solve their separate functional and structural demands.

In considering the extension and height of the building, the transformation of scale from the whole to the single unit became important. Dividing the building into two wings immediately reduced the scale and helped to bring the building into an understandable context. Transitional elements such as the large openings at the front and at the base of the building (both two storeys high), mediated between the scale of the building and its users.

The layout of the building consists of two main wings, one straight and one curved. They contain all the hotel rooms and public functions. The transparent central seating area functions as a link between these two wings. The hub of the hotel is defined by the central elevator group and staircase. This block is the center of the building's geometry and it serves as an anchor for the building. Practically speaking, its central position shortens the guests' walking distance to their hotel rooms. The entrances to the rooms are set back from the corridor wall. Walking along the corridor becomes more interesting because each setback entrance, especially in the straight wing, is different. This feature makes the entrances more personable and identifiable for the guest. Because there are windows at the end of each corridor, the guest walks towards light and additionally, is offered a view. All hotel rooms have basically the same layout. Their exact geometry and size is defined not only by their position in the building but also by their designed functional mix.

Fig. 48 Early typological study
Fig. 49 Study model urban context. View from west towards buildings on Duke Street and front of the hotel

Fig. 51 Study model urban context. View from north towards entrance side of the hotel and entrance to the plaza

Fig. 50 Study model urban context. View from south towards buildings on Duke Street and entrance to the plaza

Fig. 52 Study model urban context. View from north towards curved wing of the hotel and entrance to the plaza
SITE PLAN

1. Hotel
2. Office building and retail
3. King street metro station
4. Amtrak station
5. Masonic temple
6. Duke street
7. Reinekers lane
8. Diagonal road
9. King street
10. Public bus stop
11. Train tracks
1 Hotel
2 Porte cochere with main entrance
3 Ramp to hotel and conference parking
4 Entrance to night club and hotel
5 Staircase to conference center and parking
6 Entrance to restaurant and coffee shop
7 Plaza
8 Hotel green area
9 Public green area
10 Office building and retail
11 Delivery for retail
12 Ramp to public parking
13 Entrance to metro station
14 King street metro station
15 Entrance to Amtrak station
16 Amtrak station
17 Train tracks
18 Public bus stop
19 Diagonal road
20 Duke street
THIRD, SECOND AND FIRST BASEMENT

1. Parking for hotel and conference center
2. Entrance- and exit ramp to parking
3. Ramp between parking levels
4. Stair and elevator to conference center
5. Emergency exit and staircase
6. Service elevator and staircase
7. Service elevator
8. Elevator machine room
9. Service corridor
10. Storage meeting rooms
11. General storage
12. Meeting room
13. Ballroom
14. Ballroom foyer
15. Lobby
16. Coffee bar
17. Conference information
18. Coat room
19. Restroom
20. Restroom for handicapped
21. Employee area
22. Receiving / storage
23. Laundry / housekeeping
24. Engineering / mechanical
25. Storage for retail and office
26. Stair and elevator to office
1. Porte cochere with main entrance
2. Ramp to hotel and conference parking
3. Vestibule
4. Lobby
5. Seating
6. Conference information
7. Reception
8. Administration office
9. Retail store
10. Elevator lobby to night club
11. Guest elevator to night club
12. Emergency exit and staircase
13. Corridor to conference center
14. Staircase and elevator lobby to conference center and parking
15. Stair to upper administration office
16. Elevator lobby
17. Guest elevator
18. Service elevator
19. Entrance to entertainment lounge, restaurant, and coffee shop
20. Stair to restrooms
21. Coat room
22. Entertainment lounge
23. Coffee shop
24. Coffee shop pantry
25. Bar
26. Restaurant
27. Service corridor
28. Kitchen
29. Food and beverage storage
30. Receiving
31. Loading dock
32. Service elevator and stair
33. Technical
34. Landscape storage
35. Stair to upper floor
36. Restroom
37. General storage
38. Elevator to office
1. Elevator lobby
2. Guest elevator
3. Service elevator
4. Seating
5. Corridor
6. King guest room
7. King studio
8. Suite
9. Double / double guest room
10. Balcony
11. Linen storage
12. Housekeeping
13. Emergency exit and staircase
14. Guest elevator to night club
15. Administration office
16. Stair to lower administration office
17. Open to below
18. Technical
19. Retail
20. Stair to lower floor
21. Service elevator and stair
22. Elevator
1 Elevator lobby
2 Guest elevator
3 Service elevator
4 Seating
5 Corridor
6 King guest room
7 King studio
8 Suite
9 Double / double guest room
10 Parlor guest room
11 Balcony
12 Linen storage
13 Emergency exit and staircase
14 Guest elevator to night club
15 Office
16 Restroom
17 Technical
18 Elevator
1 Elevator lobby
2 Guest elevator
3 Service elevator
4 Corridor
5 Stair to sun deck and exercise room
6 Pool bar
7 Swimming pool
8 Lockers
9 Showers
10 Sauna
11 Restroom
12 Emergency exit and staircase
13 Guest elevator to night club
14 Stair to lower level
15 Seating
16 Bar
17 Disc jockey
18 Open to below
19 Technical
20 Engineering / mechanical
DESIGN PROPOSAL
WEST ELEVATION
Being interested in several architectural themes I tried to incorporate them within my architectural framework. This thesis was an experimentation combining my architectural percepts with given architectural approaches to illustrate one specific theme: order and disorder.

One of my design principles was to work "process orientedly". In this way I could bring together my ideas of composition and established architectural approaches (constructive, material and formal) as the design process progressed.

In reviewing my personal development during this thesis, I realize that in the beginning many of my architectural ideas were interwoven. This thesis has been useful to gain clarity and certainty in my beliefs.
INDEX OF ILLUSTRATIONS

1 I. Ridpath
Das Kosmos Buch vom Universum, Franckh - Kosmos Verlag, Stuttgart

2, 8 & 9 H. Stierlin
Architektur der Welt - Griechenland, Office du Livre, Fribourg

5, 6 & 7 G. Doczi
The power of limits, Shambla Publications, Boston

10 C. Rowe & F. Koetter
Collage city, Birkhäuser Verlag, Basel

11, 14 - 16 P. Gössel & G. Leuthäuser
Architektur des 20. Jahrhunderts, Benedikt Taschen Verlag, Köln

12 W. Ammann
Baustilkunde, Benteli Verlag, Bern

13 M. Besset
Belser Stilgeschichte des 20. Jahrhunderts - Band 11, Deutscher Taschenbuchverlag, München

17 L. Papi
Ludwig Mies van der Rohe, Kunstkreis Luzern

18 K. Frampton
Modern architecture - a critical history, Thames and Hudson Ltd, London

19 G. Nitschke
Gartenarchitektur in Japan, Taschen Verlag, Köln

20 G. & S. Jellicoe
The landscape of man, Thames and Hudson Ltd, London

22 & 38 H. Weisskamp

23 - 35 N. Pevsner
A history of building types, Princeton University Press, Princeton

36, 37 & 39 W. A. Rutes & R. H. Penner
Hotel planning and design, Watson - Guptill Pub., New York

40 & 41 D. Davis & S. Dorsey & C. Hall
Alexandria Houses 1750-1830, Cornwall Press, New York

42 Official zoning map of Alexandria of 1982
SELECTED BIBLIOGRAPHY

Arheim, Rudolf
The dynamics of architectural form, UC Press, Berkeley & Los Angeles, CA. 1977

Beer, David W. editor
Fantasy and convenience: every hotel needs both, Architectural Record. June 1984

Benedict, Michael

Davis, Deering & Dorsey, Stephen P. & Hall, R. Cole
Alexandria Houses 1750 - 1830, Comwall Pevsner, Nikolaus Press, New York, NY. 1946

Department of planning and community development
King Street Station Area Plan: a guide for future action, City of Alexandria, Virginia. 1978

Doczi, György
The power of limits, Shambhala Publications, Boston, MA. 1981

Dunster, David editor
Architectural Monographs No. 4, Alvar Aalto, Academy Editions, London. 1978

End, Henry

Lobell, John
Between silence and light - Spirit in the Architecture of Louis I. Kahn, Shambhala Publications, Boston, MA. 1979

Lynch, Kevin
The image of the city, MIT Press, Cambridge, MA. 1960

Mays, Vernon editor
PA Inquiry Inside the Hotel Guest Room, Progressive Architecture. June 1988

Meier, Richard compiled

Mitscherlich, Alexander
Thesen zur Stadt der Zukunft, Suhrkamp Verlag, Frankfurt am Main. 1971

Moore, Charles & Allen, Gerald & Lyndon, Donlyn

Mullikin, Harry & Brenner, Stephen W.
Building types study 361: Hotels - Motels Resorts, Architectural Record. August 1966

Mumford, Lewis
Die Stadt - Geschichte und Ausblick, Deutscher Taschenbuch Verlag, München. 1963

Pevsner, Nikolaus

Rutes, Walter A. & Penner, Richard H.
Hotel planning and design, Watson - Guptill Pub., New York, NY. 1985

Rowe, Collin & Koetter, Fred
Collage City, MIT Press, Cambridge, MA. 1986

Rowe, Collin

Rowe, Collin & Slutzky, Robert
Transparenz, Kommentare von Bernhard Hoesli, ETH / Birkhäuser Verlag, Basel / Boston / Stuttgart. 1974

Sitte, Camillo

Sonnenbend, Roger P. & Rooney, Walter
Building types study 310: Hotels - Motels, Architectural Record. August 1962

Venturi, Robert
Komplexität und Widerspruch in der Architektur, Herausgeber Heinrich Klotz, Bauwelt Fundamente Nr. 50, Vieweg, Braunschweig. 1978

Walker Art Center

Weisskamp, Herbert
The vita has been removed from the scanned document