PLAYBOY CLUB
RESORT HOTEL
GEIST RESERVOIR INDIANAPOLIS, INDIANA

TIMOTHY G. SPECHT
DESIGN 404-6
THESIS YEAR 1980
PROF. A. E. PALMER
B.S.U. C.A.P.
ABSTRACT

The following project is an accumulation of the work done in the final, thesis year, at The College of Architecture and Planning at Ball State University.

The chronological order is as follows: fall quarter, site analysis, building program, and schematic design; winter quarter, design development; spring quarter, final design solution, and thesis book.

This book is a documentation of the complete design process.
ACKNOWLEDGEMENTS

Professor A. E. (Sonny) Palmer

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Professor James R. Underwood

Mr. and Mrs. Charles F. Specht
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PLAYBOY CLUB
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INTRODUCTION
INTRODUCTION

The name of this project is The Playboy Club Resort Hotel. It is located on Geist Reservoir on the northeast side of Indianapolis. The reservoir is 6 miles from downtown metropolitan Indianapolis, in the area of Marion Country that is growing at a extremely fast rate.

There are many reasons for the resort to be located on Geist Reservoir. The major reason is its location as a completely rural site with quick accessibility from urban downtown Indianapolis. It is in a way "the great escape" from city life. The transition from urban to rural occurs at 4 different scales on the drive from downtown to the site. The first scale is driving from the downtown area to the north side of Indianapolis. Fall Creek Parkway is a straight 6 lane highway, which as you leave the city limits transforms into a 2 lane curvy and hilly country road. The next transition occurs as you enter the site, the road becomes more narrow and curvy. The final
transition occurs when you arrive at the resort. At this point there is no contact, visual or physical, with the city or the road that brought you from the city.

The exact site location was chosen for its ideal southern slope, and maximum waterfront area. A small lagoon is located at the southern side of the site, which would be ideal for small boat docking, although this is not programmed into the complex. The view across the reservoir is at the point of the greatest width of the reservoir. The resort also has a private attitude about it, although it is only located about 400-500 feet from the road. Because of a buffer of trees and other vegetation, the complex can not be seen from the road and only from the waterfront.

The basic building program is simple. There are two major atrium spaces, with a centrally located organizing spine. The lodging rooms are wrapped around the atriums on the south side and stairstep down the site. The reasons for the two atrium spaces stems from the fact that there are basically two types of spaces in-
evolved, the quiet spaces, and the noisy playful spaces. From this idea the two atriums evolved, the noisy, playful atrium focusing in on the pool and spa area which is at its base, and the quiet atrium which focuses on the convention space, which is at its base. The lodging rooms stairstep down the southern slope with all rooms having a equally fine view of the reservoir. The central spine essentially cut the building in half, with it also sloping down the southern slope at approximately 20°. The elevators that run down the walls of the spine, also slope down the site.

The geometry of the building evolved out of the topography of the site. This was with keeping to a major concept, continuity of the landscape. While the topography of the site is freeform, the building itself stays rigorously to a radius and perimeter grid.

Since this building is located on a completely rural site, and has become part of the landscape, the definition between indoor and outdoor spaces is eliminated at certain points.
This has been done with "mirror image" planting, floor to ceiling glass treatments, and spaces which can be transformed from outdoor to indoor spaces and vice versa.

Although this is a Playboy resort, a major philosophy must be excepted. This philosophy is that the resort is not a playground for the "jet set", but of the "suburban set". The resort also is not just for single people, family are also welcomed.
SITE ANALYSIS

PLAYBOY CLUB
RESORT HOTEL
GEIST RESERVOIR  INDIANAPOLIS, INDIANA
REASONS FOR SITE LOCATION

INDIANAPOLIS  Elevation 792 Ft.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Degree</th>
<th>Rel. Prec.</th>
<th>Wind</th>
<th>Average Number of Days of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Extremes (Base 65°)</td>
<td>Days</td>
<td>Hum</td>
<td>Nor.</td>
<td>Sunup/Sundown</td>
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<tr>
<td>Maximum</td>
<td>Minimum</td>
<td>Monthly</td>
<td>Highest</td>
<td>Lowest</td>
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<td>37</td>
<td>21</td>
<td>29</td>
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<td>M</td>
<td>40</td>
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<td>39</td>
<td>80</td>
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<td>A</td>
<td>61</td>
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<td>51</td>
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<td>M</td>
<td>72</td>
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<td>J</td>
<td>82</td>
<td>60</td>
<td>71</td>
<td>96</td>
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<td>J</td>
<td>86</td>
<td>64</td>
<td>75</td>
<td>99</td>
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<td>A</td>
<td>85</td>
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<td>74</td>
<td>97</td>
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<td>S</td>
<td>78</td>
<td>55</td>
<td>66</td>
<td>86</td>
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<tr>
<td>O</td>
<td>67</td>
<td>44</td>
<td>55</td>
<td>88</td>
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<td>N</td>
<td>50</td>
<td>32</td>
<td>41</td>
<td>78</td>
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<tr>
<td>O</td>
<td>39</td>
<td>23</td>
<td>31</td>
<td>70</td>
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<tr>
<td>Y</td>
<td>62</td>
<td>42</td>
<td>52</td>
<td>99</td>
</tr>
</tbody>
</table>

- Easy fast access from urban Indianapolis. A good transition occurs, from a 5 lane straight urban freeway to a 2 lane curved rural road.

- Located on a woody site on the edge of Geist Reservoir. Another transition from urban to rural atmosphere.

- Located on northeast side of Indianapolis, the fastest growing and richest part of the city.

- Sloping site allows for energy conservation, and a increase in interest and design opportunities.

- Site is completely covered with trees, and at the location of the greatest width of the reservoir. These criteria give the feeling of being completely removed from city life.

- Without any other buildings to relate to, the design solution has the ability to relate within itself and the surrounding environment.

- With its relationship with land and rural context, the design solution can attempt to speak of the carefree pleasures of the country air, a Playboy design criteria.
SOILS AND DRAINAGE MAP KEY

PUBLIC UTILITIES

- currently under construction, with upper class housing developments to the south of the site

WINDS

-area of the site takes advantage of the summer breezes that are cooled by the reservoirs water.

-winter winds skim over top of site avoiding the southern slope of the site

SOILS

-Hennepin Loam
  - located on 20-50% slopes
  - severe erosion occurs on these slopes
  - well drained
  - moderately permeable

-Miami Silt Loam
  - located on 2-5% slopes
  - moderate erosion
  - well drained
  - slowly permeable

-Brookston Silty Clay
  - located on 0-2% slopes
  - no erosion
  - poor drainage
  - moderately permeable

DRAINAGE

-drainage and erosion are typical for this type of site

-site is almost completely covered with ground cover and trees causing lower amounts of erosion

FLOOD PLANE

-since the location of the site is on a reservoir, there will be little potential for flooding

-the 100 year flood plane is located on the map by the dotted areas

SCALE

-the scale can be more visually understood by the scaled football field at the top left of the map
- Site is located 6 miles from metropolitan Indianapolis, on the northeastern corner of Marion County.

- Fall Creek Parkway acts as a transition from urban to rural. The road begins in Indianapolis as a straight five lane concrete highway, and as you go north towards Geist Reservoir the road turns into a two lane curving asphalt road.

- The site is located in an area where many upper class people are moving. Industry and office building are also being built in the area.

- Although the sites location is very rural, utilities are now being constructed along Fall Creek Road.

- The site is sloped from 0-50%, thus increasing design and energy conservation opportunities.

- Although possible building location is only 400-500 feet from the road, dense tree covering still gives you a feeling of seclusion.

- From the site, your view is at the widest part of the reservoir.

- From the road the major portions of the site can not be seen, thus giving the site a feeling of seclusion.

- Possibilities to relate to both the city and suburban associates from which the resort springs.

- Potential problem with building located below sewer grade. Mechanical means to remove waste is undesirable.

- Because building location will probably be located on southern slope, the building should affirm the continuity of the land, rather than interrupt the natural landscape.
BUILDING PROGRAM

PLAYBOY CLUB
RESORT HOTEL
GEIST RESERVOIR  INDIANAPOLIS, INDIANA
GENERAL GOALS

General Goals

- No other building to relate to, so much emphasis should be to relating to surrounding environment.

- Having no other surrounding structures, the design solution should turn in upon itself, becoming self reliant and self sustaining, its occupants however temporary, will be expected to require nothing more than what is available at the resort.

- The resort is not a playground for the jet set, but for the suburban set.

- The building should relate to the city and suburban associates from which it springs.

- The design solution should affirm the continuity of the site, rather than interrupt the natural landscape of the site.

- Since the structure will probably be built into the southern slope of the site, special care should be taken to allow natural lighting in all areas of the building. This should be done so that a "basement effect" does not occur.

- As the site slopes down the southern exposure, so shall the building. The building should not fight the slope but blend into it.

- A view of the lake should occur whenever possible throughout the structure. The view will not get boring because it will be seen at different elevation points.

- The program seems to dictate the grouping of spaces into two categories, a quiet, solemn grouping and a noisy, festive grouping. This also seems to say that there may be two atrium spaces.

- The design solution should be oriented towards the lakefront and away from the street side. This helps emphasize the seclusion and isolation from the city, and the enhancement of the rural.

- Since the solution must relate to the site, an indoor-outdoor relationship should occur. This can be done by taking away a definition of what is outdoor and what is indoor.

- A clear circulation pattern should occur. This could be possible by having direct visual contact between major spaces. This also must be done without invasion of privacy.
SPECIFIC GOALS

Lodging

- If possible all rooms should be oriented to the lakefront, with clear visual access.
- Each room should also have clear physical access to the lakefront.
- A "snob appeal" should occur, the better the room the better the access, both visually and physically.

Convention Space

- Direct visual access to lakefront not essential, although natural lighting is.
- Possibility that other major spaces in the resort could look upon the convention space.

Pool and Spa Area

- Possibility for other similar spaces could look upon the pool area, i.e., a bar.
- Natural lighting essential, along with a very transparent indoor-outdoor relationship.
- Access to lakefront and beach essential.
- An indoor-outdoor pool would have great potential.

Shopping Area

- Area could be spread out with other activities occurring, like a mall.
- Possibility of the mall overlooking another major space.

Restaurant

- Complete natural lighting required.
- Outdoor eating area also required, definition of indoor-outdoor areas should be at a minimal.
- Many visual views should occur, such as lakefront and also inward views.

Lounge Area

- Carefree type area, possibly overlooking other similar type areas.
- Outdoor lounge also a requirement, with definition between indoor and outdoor at a minimal.
- View of lakefront essential.

Bar and Dance Floor Area.
- Inwardly focusing area, alienated from rest of complex because of noise factor.
- Possibility for bar to overlook similar type spaces, as long as a noise buffer occurs.
<table>
<thead>
<tr>
<th>USERS</th>
<th>USER ACTIVITIES</th>
<th>SPACE PERFORMANCE</th>
<th>SPACE STANDARD</th>
<th>FURNITURE EQUIPMENT</th>
<th>ENVIRONMENTAL REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMALL ROOMS</td>
<td>lodging room, sleeping</td>
<td>a space used mostly in the evenings, with occasional day usage. Interaction between rooms should be considered.</td>
<td>130 sq. ft.</td>
<td>-1 bed</td>
<td>-natural ventilation and lighting</td>
</tr>
<tr>
<td>business man, or single person</td>
<td>socializing, personal hygiene, storage</td>
<td></td>
<td>(room)</td>
<td>-1 desk</td>
<td>-views important</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40 sq. ft.</td>
<td>-1 chair</td>
<td>-task type lighting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(bath)</td>
<td>-1 lounge chair</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>-1 night table</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-typical bath</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>facilities</td>
<td></td>
</tr>
<tr>
<td>LARGE ROOMS</td>
<td></td>
<td></td>
<td>200 sq. ft.</td>
<td>-1 or 2 beds</td>
<td></td>
</tr>
<tr>
<td>family, man and wife</td>
<td></td>
<td></td>
<td>(room)</td>
<td>-2 lounge chairs</td>
<td></td>
</tr>
<tr>
<td>person needing larger room</td>
<td></td>
<td></td>
<td>60 sq. ft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(bath)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LUXURY SUITES</td>
<td></td>
<td>this space could be used more in the daytime because of sink and limited kitchen facilities</td>
<td>280 sq. ft.</td>
<td>-1 or 2 beds</td>
<td>-views must be best in the house</td>
</tr>
<tr>
<td>people staying for extended periods of time, people with money</td>
<td></td>
<td></td>
<td>(room)</td>
<td>- all other accessories of excellent quality</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>80 sq. ft.</td>
<td>- luxury bath</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(bath)</td>
<td>(possible whirlpool bath)</td>
<td></td>
</tr>
<tr>
<td>EXECUTIVE SUITES</td>
<td>except possibilities for mini convention spaces and meetings</td>
<td>this space may be used as much in the daytime as night. Possibility for conversion of two rooms into one.</td>
<td>200 sq. ft.</td>
<td>of small rooms except area for large table storage</td>
<td>-views looking into convention space</td>
</tr>
<tr>
<td>businessmen with close contact with convention area</td>
<td></td>
<td></td>
<td>(room)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>60 sq. ft.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>(bath)</td>
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<tr>
<td>USERS</td>
<td>USER ACTIVITIES</td>
<td>SPACE PERFORMANCE</td>
<td>SPACE STANDARD</td>
<td>FURNITURE EQUIPMENT</td>
<td>ENVIRONMENTAL REQUIREMENTS</td>
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</tr>
<tr>
<td>LOBBY occupants,</td>
<td>socializing, resting,</td>
<td>generally quiet, relating atmosphere. People always moving through space.</td>
<td>1300 sq. ft.</td>
<td>-couches</td>
<td>-natural systems when possible</td>
</tr>
<tr>
<td>getting reservations</td>
<td>waiting for someone</td>
<td>do not let them interrupt people using space.</td>
<td></td>
<td>-chairs</td>
<td>-low-local lighting</td>
</tr>
<tr>
<td>HOTEL ADMIN, hotel</td>
<td>administration, 1-4</td>
<td>general business-like atmosphere—connected to main registration desk.</td>
<td>200 sq. ft.</td>
<td>-tables</td>
<td>-2 air changes/hour</td>
</tr>
<tr>
<td>management, desk</td>
<td>workers</td>
<td></td>
<td></td>
<td>-reservation desk</td>
<td>-50 F.C.</td>
</tr>
<tr>
<td>workers</td>
<td></td>
<td></td>
<td></td>
<td>-1 to 25 seats</td>
<td>-natural systems when possible</td>
</tr>
<tr>
<td>USERS</td>
<td>USER ACTIVITIES</td>
<td>SPACE PERFORMANCE</td>
<td>SPACE STANDARD</td>
<td>FURNITURE EQUIPMENT</td>
<td>ENVIRONMENTAL REQUIREMENTS</td>
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<tr>
<td>MAIN RESTAURANT</td>
<td>eating, talking, drinking, socializing, unwinding, relaxing.</td>
<td>general quiet, relaxing atmosphere, with many individual nodes</td>
<td>12,000 sq. ft.</td>
<td>-100 4 seat tables</td>
<td>-68° 78° (new law) -7-8 air changes per hour -indirect lighting 20 f.c. -individual table lighting</td>
</tr>
<tr>
<td>BREAKFAST LUNCH RESTAURANT</td>
<td>used primarily for patrons of hotel</td>
<td>&quot;</td>
<td>4000 sq. ft.</td>
<td>-10 4 seat tables</td>
<td>&quot;</td>
</tr>
<tr>
<td>LOUNGE 20-50 diners waiting to be seated</td>
<td>drinking, talking, relaxing.</td>
<td>&quot;</td>
<td>3500 sq. ft.</td>
<td>-10 2 seat tables</td>
<td>&quot;</td>
</tr>
<tr>
<td>BAR AND DANCE FLOOR 100+ occupant of hotel or others</td>
<td>people there to have fun, see band, dance get loaded</td>
<td>loud lively area, people having fun</td>
<td>5000 sq. ft.</td>
<td>-dance floor stand up bar</td>
<td>-10-15 air changes per hour -low lighting -spotlight lighting -acoustical control</td>
</tr>
<tr>
<td>MANAGEMENT</td>
<td>office for restaurant and bar, management and coordination</td>
<td>office atmosphere, for 3 people</td>
<td>250 sq. ft.</td>
<td>-3 desks</td>
<td>-50 f. c. -task lighting -2 air changes per hour</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>USERS</th>
<th>USER ACTIVITIES</th>
<th>SPACE PERFORMANCE</th>
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<th>FURNITURE EQUIPMENT</th>
<th>ENVIRONMENTAL REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>KITCHEN EMPLOYEES</td>
<td>food preparation (vegetable and fruit)</td>
<td>must be easily cleanable, &quot;sterile-type atmosphere&quot;, low humidity.</td>
<td>150 sq. ft.</td>
<td>-prep table -sinks -waste disposal -peeling, washing, dicing, shredding machines -tool storage -wheeled carts</td>
<td>-65° -3 air changes/hr. -37 lumens/sq. ft.</td>
</tr>
<tr>
<td>KITCHEN EMPLOYEES</td>
<td>food preparation (meat and fish)</td>
<td>must be easily cleanable, low humidity, lower than normal temperature.</td>
<td>200 sq. ft.</td>
<td>-mincing and dicing machines -small refrigerator for temp. storage -wood cutting table -sinks -stainless steel table -tool storage</td>
<td>-60° -3 air changes/hr. -37 lumens/sq. ft.</td>
</tr>
<tr>
<td>COOK EMPLOYEES</td>
<td>cooking of the food for restaurant</td>
<td>must be easily cleanable, many exhaust fans, do not let odors leave area.</td>
<td>600 sq. ft.</td>
<td>-steam oven -microwave -oven range -open flame grill -coffee urn</td>
<td>-not to exceed 77° -20 to 60 air changes per hour -37 lumens/ sq. ft. -55 to 60 decibels</td>
</tr>
<tr>
<td>GENERAL KITCHEN EMPLOYEES</td>
<td>cold storage</td>
<td>walk-in cooler, sterile atmosphere.</td>
<td>150 sq. ft.</td>
<td>-stainless steel shelving -wire shelves</td>
<td>-35°-38° -humidity- no condensation</td>
</tr>
<tr>
<td>USERS</td>
<td>USER ACTIVITIES</td>
<td>SPACE PERFORMANCE</td>
<td>SPACE STANDARD</td>
<td>FURNITURE EQUIPMENT</td>
<td>ENVIRONMENTAL REQUIREMENTS</td>
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<td>-------------------------------------------</td>
</tr>
<tr>
<td>Waitresses, Waiters, Busboys, Hostess</td>
<td>preparing tables for dinner, food distribution</td>
<td>must be part of dining space, but shielded from diners. (waitress can see diners but not vice versa.)</td>
<td>500 sq. ft.</td>
<td>- cutlery area &lt;br&gt;- counter space &lt;br&gt;- beverage dispensers &lt;br&gt;- linens &lt;br&gt;- dishes, etc.</td>
<td>- 7 to 8 air changes/hr &lt;br&gt;- 68° to 78°, new requirement &lt;br&gt;- indirect lighting (20 F.C.) &lt;br&gt;- low noise level</td>
</tr>
<tr>
<td>Management and Bartender</td>
<td>drink storage</td>
<td>restrictive to employees, walk-in cooler.</td>
<td>100 sq. ft.</td>
<td>- shelves &lt;br&gt;- wine racks &lt;br&gt;- coolers</td>
<td>-55° to 57° &lt;br&gt;- 18 lumens/sq. ft.</td>
</tr>
<tr>
<td>General Kitchen Employees</td>
<td>vegetable and fruit storage</td>
<td>high humidity, no daylight, clean sanitary area.</td>
<td>150 sq. ft.</td>
<td>- washable surfaces &lt;br&gt;- slatted shelves, wire racks &lt;br&gt;- shallow shelves, no floor &lt;br&gt;- storage, sinks counters</td>
<td>-41° to 50° &lt;br&gt;- 2 air changes/hr. &lt;br&gt;- 95% humidity &lt;br&gt;- 18 lumens/sq. ft., no natural light</td>
</tr>
<tr>
<td>General Kitchen Employees</td>
<td>dry storage</td>
<td>dry area, damp proof, no natural light.</td>
<td>200 sq. ft.</td>
<td>- lipped shelves &lt;br&gt;- stainless steel work shelves &lt;br&gt;- stainless steel bins on wheels</td>
<td>-50° to 59° &lt;br&gt;- 2 air changes/hr. &lt;br&gt;- damp proof, low humidity &lt;br&gt;- 18 lumens/sq. ft., no natural light</td>
</tr>
<tr>
<td>General Kitchen Employees &amp; Maintenance</td>
<td>general storage and clean-up areas</td>
<td>contains generally stored items with clean-up area.</td>
<td>clean-up storage- 250 sq. ft.</td>
<td>- cleaning materials &lt;br&gt;- cutlery &lt;br&gt;- linens &lt;br&gt;- cabinet above counter space &lt;br&gt;- sinks (janitorial)</td>
<td>- 2 air changes/hr. &lt;br&gt;- 18 lumens/sq. ft. &lt;br&gt;- low humidity</td>
</tr>
<tr>
<td>USERS</td>
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</tr>
<tr>
<td>SHOPPING visitors or occupants of the resort</td>
<td>shopping for small items, etc.</td>
<td>front display window</td>
<td>6000 sq.ft. (shops)</td>
<td>-seating areas</td>
<td>-3-4 air changes per hour</td>
</tr>
<tr>
<td></td>
<td></td>
<td>back storage area</td>
<td>3000 sq.ft. (mall)</td>
<td>-fountain, trees, etc.</td>
<td>-10-15 f.c.</td>
</tr>
<tr>
<td>CONVENTION SPACE business groups, clubs</td>
<td>banquet or convention space, eating, meeting, lecturing.</td>
<td>large open space with podium or stage</td>
<td>3000 sq.ft. (major)</td>
<td>-podium, moveable chairs and tables</td>
<td>-3-4 air changes per hour</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1000 sq.ft. (minor)</td>
<td></td>
<td>-0-20 f.c. (adjustable)</td>
</tr>
<tr>
<td>ENTRANCE LOBBY</td>
<td>all visitors and occupants of the resort</td>
<td>lobby space, an introduction to the resort</td>
<td>large open space with possible overall view of resort</td>
<td>1500 sq. ft.</td>
<td>-tables, chairs, information kiosks</td>
</tr>
<tr>
<td>GAME ROOM occupants of the resort, and occasional visitor</td>
<td>pool tables, pinball foosball, and other misc. games</td>
<td>lively playful area, with much noise</td>
<td>1800 sq. ft.</td>
<td>-foosball, pool tables, pinball, tables, chairs</td>
<td>-3-4 air changes per hour</td>
</tr>
<tr>
<td>MAIN MANAGEMENT OF RESORT</td>
<td>introduction to resort, overall coordination and management</td>
<td>office atmosphere, opening to main desk into lobby space</td>
<td>1000 sq. ft.</td>
<td>-desks, chairs, files, storage, records</td>
<td>-50 f.c.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-2 air changes per hour -task lighting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-task lighting</td>
</tr>
<tr>
<td>USERS</td>
<td>USER ACTIVITIES</td>
<td>SPACE PERFORMANCE</td>
<td>SPACE STANDARD</td>
<td>FURNITURE EQUIPMENT</td>
<td>ENVIRONMENTAL REQUIREMENTS</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>----------------</td>
<td>--------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>POOL</td>
<td>swimming, lounging, looking at the women</td>
<td>pool with at least 10'-15' skirt around it.</td>
<td>2000 sq. ft.</td>
<td>-pool-side furniture</td>
<td>-20 to 25 air changes/hr.</td>
</tr>
<tr>
<td>TURKISH (STEAM) BATH</td>
<td>sitting for short periods of time; 10-15 minutes max.</td>
<td>room of steam—benches provided and water spicket</td>
<td>100 sq. ft.</td>
<td>-benches</td>
<td>-10 to 12 air changes/hr.</td>
</tr>
<tr>
<td></td>
<td>exercising, male and female</td>
<td>a space to exercise, circulation from machine to machine</td>
<td>12 person capacity</td>
<td>-water spicket</td>
<td>-20 to 30 lumens per sq. ft.</td>
</tr>
<tr>
<td>WEIGHT ROOM</td>
<td>sitting in swirling tub; for 5-10 minutes max.</td>
<td>adjacent to swimming pool, benches built under the water</td>
<td>10x15' oval</td>
<td>-universal weight equipment, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sitting and resting for short periods of time; 10-15 minutes maximum</td>
<td>good for respiration, tile room</td>
<td>80 sq. ft.</td>
<td>-main desks -lobby -inclined benches -mirrors</td>
<td></td>
</tr>
<tr>
<td>WHIRLPOOL</td>
<td>sitting in swirling tub; for 5-10 minutes max.</td>
<td>redwood benches to sit on that are not too hot for the body</td>
<td>150 sq. ft.</td>
<td>-eucalyptus machine -benches</td>
<td></td>
</tr>
<tr>
<td>EUCALYPTUS ROOM</td>
<td>sitting and perspiring for short periods of time</td>
<td></td>
<td></td>
<td>-redwood floor and walls -2&quot; polyurethane insulation</td>
<td>-thermostat -approximately 190°</td>
</tr>
<tr>
<td>SAUNA BATH</td>
<td></td>
<td></td>
<td></td>
<td>-1/2&quot; marine plywood subfloor for moisture -container with igneous rocks</td>
<td></td>
</tr>
<tr>
<td>USERS</td>
<td>USER ACTIVITIES</td>
<td>SPACE PERFORMANCE</td>
<td>SPACE STANDARD</td>
<td>FURNITURE EQUIPMENT</td>
<td>ENVIRONMENTAL REQUIREMENTS</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-------------------------------------</td>
<td>----------------</td>
<td>-------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>SHOWER ROOM</td>
<td>both getting ready to exercise and cleaning up after exercising</td>
<td>high moisture, easily mopped.</td>
<td>1200 sq. ft.</td>
<td>- lockers</td>
<td>-10 to 15 air changes/hr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- showers</td>
<td>- 20 to 30 lumens per sq. ft. with</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- ultra-violet room</td>
<td>task lighting in bathrooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- vending</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- benches</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- clothes changing areas</td>
<td></td>
</tr>
<tr>
<td>DESK</td>
<td>overlooking health spa, helping people in exercising program</td>
<td>visual access to spa area</td>
<td>100 sq. ft.</td>
<td>- front desk</td>
<td>- same as typical office</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- desk and file</td>
<td></td>
</tr>
</tbody>
</table>
## SPACE SUMMARY

### HOTEL

**Lodging**
- 32 small rooms @170 sq. ft. = 5440 sq. ft.
- 45 large rooms @200 sq. ft. = 9000 sq. ft.
- 16 luxury suites @360 sq. ft. = 5760 sq. ft.
- 8 conv. rooms @200 sq. ft. = 1600 sq. ft.

**Administration**
- 10 sq. ft. per room = 1010 sq. ft.

**Lobby**
- lobby space = 1500 sq. ft.
- front desk = 200 sq. ft.

**Circulation**
- 75 sq. ft. per 101 rooms = 7575 sq. ft.
- lobby space = 0 sq. ft.

**Total** = 32,085 sq. ft.

### BARS AND RESTAURANT

**Dining Room**
- major dining space = 12,000 sq. ft.
- breakfast and lunch rest. = 4,000 sq. ft.
- cloak room = 600 sq. ft.
- rest rooms = 900 sq. ft.

**Lounge**
- lounge area = 3000 sq. ft.
- bar area = 500 sq. ft.

**Bar**
- bar with dance floor = 5000 sq. ft.
- restrooms = 1000 sq. ft.

**Kitchen**
- food storage = 500 sq. ft.
- food prep = 250 sq. ft.
- cooking area = 600 sq. ft.
- food service and distribution = 500 sq. ft.
- clean up = 250 sq. ft.
- liquor storage = 250 sq. ft.
- facilities = 800 sq. ft.
- storage = 700 sq. ft.

**Circulation**
- dining areas = 2000 sq. ft.
- lounge = 600 sq. ft.
- bar = 800 sq. ft.
- kitchen = 650 sq. ft.

**Total** = 33,900 sq. ft.

### OTHER SPACES

**Health spa**
- pool and deck = 4000 sq. ft.
- turkish bath = 100 sq. ft.
- weight room = 1000 sq. ft.
- whirlpool = 100 sq. ft.
- showers = 1200 sq. ft.
- eucalyptus room = 100 sq. ft.
**SPACE SUMMARY (cont)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Area (sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shops</td>
<td></td>
</tr>
<tr>
<td>- 10 shops @ 600 sq. ft. each</td>
<td>=6000 sq. ft.</td>
</tr>
<tr>
<td>Convention Space</td>
<td></td>
</tr>
<tr>
<td>- major space</td>
<td>=3000 sq. ft.</td>
</tr>
<tr>
<td>- minor space</td>
<td>=1000 sq. ft.</td>
</tr>
<tr>
<td>- storage</td>
<td>= 500 sq. ft.</td>
</tr>
<tr>
<td>- restrooms</td>
<td>= 900 sq. ft.</td>
</tr>
<tr>
<td>Games Area</td>
<td></td>
</tr>
<tr>
<td>- billiards</td>
<td>=1200 sq. ft.</td>
</tr>
<tr>
<td>- others</td>
<td>= 500 sq. ft.</td>
</tr>
<tr>
<td>- desk</td>
<td>= 100 sq. ft.</td>
</tr>
<tr>
<td>Display Area</td>
<td></td>
</tr>
<tr>
<td>- display area</td>
<td>=2500 sq. ft.</td>
</tr>
<tr>
<td>- storage</td>
<td>= 600 sq. ft.</td>
</tr>
<tr>
<td>Mechanical Space</td>
<td></td>
</tr>
<tr>
<td>- mechanical room</td>
<td>=1400 sq. ft.</td>
</tr>
<tr>
<td>- mechanical chase</td>
<td>= 900 sq. ft.</td>
</tr>
<tr>
<td>General Storage Areas</td>
<td></td>
</tr>
<tr>
<td>- furniture</td>
<td>=1000 sq. ft.</td>
</tr>
<tr>
<td>- maids areas</td>
<td>=2000 sq. ft.</td>
</tr>
<tr>
<td>- records</td>
<td>= 500 sq. ft.</td>
</tr>
<tr>
<td>Receiving Areas</td>
<td></td>
</tr>
<tr>
<td>- restaurant and bar receiving</td>
<td>=1000 sq. ft.</td>
</tr>
<tr>
<td>- hotel and resort receiving</td>
<td>=1000 sq. ft.</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>=9500 sq. ft.</td>
</tr>
<tr>
<td><strong>shop circulation + 3,000 sq. ft.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>=25,800 sq. ft.</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>=102,785 sq. ft.</td>
</tr>
</tbody>
</table>

**SERVICE AREAS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Area (sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Facilities</td>
<td></td>
</tr>
<tr>
<td>- locker rooms</td>
<td>= 1000 sq. ft.</td>
</tr>
<tr>
<td>- canteen</td>
<td>= 300 sq. ft.</td>
</tr>
<tr>
<td>- personnel office</td>
<td>= 300 sq. ft.</td>
</tr>
<tr>
<td>- timekeeping</td>
<td>= 100 sq. ft.</td>
</tr>
</tbody>
</table>
FUNCTIONAL PLAN OF MAIN, TRAFFIC
FOOD AND BEVERAGE CONTROL
THE CABARET
Geist Reservoir, Indianapolis, Indiana
Julia Monk (thesis project)

Footprint

Parti
-free form
-wall object

Unique Features
-stairstep lodging
-hotel sympathetic with site
-located in rural Indianapolis on Geist Reservoir
-income sources on lower level
Structure
- load bearing walls and columns
- slab on truss decking system

Circulation
- exterior circulation between playhouse and lodging
  - from parking facility you must walk through commercial area to get to playhouse
- concern about waitress circulation in playhouse (not to obstruct views of audience)
PLAYBOY CLUB RESORT
Lake Geneva, Wisconsin
Robert L. Taage and Associates, Architects

Footprint

Parti
- fragmented slab

Circulation
- follows building form

Structure
- poured in place columns and slabs
- interior bearing walls with columnated exterior walls, in lodging wings
- columns in main body of structure
Unique Features
- Floor to ceiling glass
- Indoor outdoor "mirror image" planting
- Lack of definition from indoor to outdoor

Correlation

Image
- Not a playground of the jet set, but for the suburban set
- Typical middle American scene, with children
- A fortress, occupants should have no reason to leave, all needs are provided at resort

Facade
- Low profile, series of horizontal massings
- Affirm continuity of the landscape, rather than disrupt it
- Monolithic, brutal, rugged, lack of softness
  lack of softened edges, fortress metaphor
STOUFFERS TOWER
St. Louis, Missouri
William Tabler Architects

Footprint

Parti
- geometric, cylinder

Circulation
- lodging occurs at perimeter
- horizontal circulation occurs on the inside perimeter

Structure
- precast concrete wall and floor panels
- space frame over atrium
STOUFFERS TOWER (cont)

Correlation Diagram
most profitable income spaces located on main level

Indoor-Outdoor Transition
introverted atrium
lodging has outside view

Unique Features
multi-level atrium
swimming pool overlooked by restaurant and bar
innovative structure was very economical and was erected in 18 weeks
CONCEPTUAL DESIGN

PLAYBOY CLUB
RESORT HOTEL
GEIST RESERVOIR  INDIANAPOLIS, INDIANA
Since an early design decision involved two atrium areas, one with the pool area at the base, and the other with the convention space at the base, many of the other spaces seemed to want to overlook these two areas. This could be done by cantilevering balconies over the base space, excessive cantilevering could occur if it were suspended from the roof truss system.

Another early design decision involved building the structure into the southern slope. This dictates great energy savings, but at the same time creates dark spaces. These spaces must receive abundant natural lighting.
The main difference in the two atrium areas is that one is completely closed on four sides, and the other has one side opened to the lakefront. The reasons for this are programmatic. The atrium with the pool needs visual as well as physical connections with the waterfront, while the atrium containing the convention space only needs the natural lighting from above.
With this preliminary design solution a inward focus is trying to be achieved. This is done with the lodging "arms" creating a outdoor area surrounded by the resort on three sides, and the lakefront on the fourth side. The firestair are also used as a sculptural element, contrasting the part of the rest of the building.

The restaurant and lounge areas receive the best view of the lake, as they are located on the top level. This is the only level that is not built into the ground on the north exposure.

At the major entrance a view of the major spaces of the interior are visible, as well as a view of the lakefront, and outdoor area. The lodging arms, in a sense, are reaching out to the reservoir.
Another structural manipulation was thought about early in the design development. Instead of cantilevered balconies held in place by tension members suspended from the overhead truss system, a system of floor to ceiling trusses were used. These trusses were of large enough scale that circulation could occur between web members. The exposed web members could also be used as decorative elements. This type system also has great cantilevering capabilities.

A preliminary structural layout was drawn up using this type of system. It consisted of two sizes of trusses, a 12 foot truss, and a 10 foot truss. These two type of trusses dictated two different bay sizes, along with different cantilevering capabilities. To the right is a layout with the two truss sizes labeled.
To the left is an axonometric of the preceding design solutions taken one step further. The elevated roof planes suggest some sort of skylighting. The notches in the lodging wings suggest areas of egress, as well as points of visual contact with the exterior. These nodes also help to break the monotony of the long lodging corridors.

The notches in the lodging wings also provide descent down the southern slope of the site. At each node a five foot elevation drop occurs. As in earlier solutions, all three levels are exposed on the southern facade, with just one level, the top exposed towards the north.
In the final design scheme with this parti, two schematic layouts of the top level were presented. The first proposal was deemed the better of the two because of the orientation of the lounge area, which had visual access to the waterfront.
DESIGN DEVELOPMENT

PLAYBOY CLUB
RESORT HOTEL
GEIST RESERVOIR    INDIANAPOLIS, INDIANA
DESIGN DECISIONS

There was one major design decision that had to be made at this time before design development could continue. The decision was that of the parti of the building.

The parti which presently was considered was one of a building mass or main body with two radiating arms. The reason for this footprint was to create an inwardly focusing concept, with the "arms" reaching towards the waterfront. This prognosis was incorrect, instead of the "arms" reaching towards the waterfront, they were in fact keeping the main body of the building at arms length from the waterfront.

Although changing a parti of a building at this stage of the design development seems like a very drastic change, it in fact was not as complicated as it seems. The program and spaces in the project did not change, they just needed to be rearranged.

As the "arms" of the lodging wings seemed to cut through the natural landscape of the project, if they were instead wrapped around the main body of the parti, they would flow along the natural topography of the site. This possibility needed to be investigate before further development could occur.
The difference of the above site plan from the one on the right is considerable. The original design solution at the top seems to be fighting against the site, and the one to the right seems to be blending into the site. This was a primary philosophy from the start, affirmation of the continuity of the site.

The solution to the right also allows for the building to move closer to the waterfront. From this also evolves a new central spine to the project.
From the stairstepping of rooms, many new opportunities arise. One such opportunity is that each lodging level's roof can become the balcony of the lodging level above. And with the right parapet or railing treatment, this balcony can be broken down into two zones: private, and public.

The stairstepping effect also allows for equal views for all the lodging rooms, although they occur at different elevation heights.
The structure that evolves from this circular plan is as follows: a series of radials at 15° increments. As you move away from the center the increments are dissected in half, and then into thirds. This is done to keep the bay sizes relatively consistent. This also serves as the bearing walls between the individual lodging rooms.

The perimeter of the structure is at 30 foot intervals. The primary 15° radials read as major elements on the facade treatments, while the dissecting elements read as the minor elements.

The spinal element that runs through the center of the structure, runs on an independent structural system.
The major circulation spine is covered with a space frame of 4 foot by 4 foot by 3 foot 3 inches. Although the lodging stairsteps down, the space frame slopes down at a 20° angle. At the points where the lodging stairstepping occurs, the space frame doubles in thickness. This occurs for two reasons, it gives the space frame a feeling of three dimensionality, and also gives a feeling of structural stability. The space frame continues to ground level for the same reason.

In the spinal section itself, which can be seen on the next page, the elevators slope down the sides of the spine at the same 20° angle that the space frame runs. Down the center of the spine runs the escalators.

From the top level of the resort two major views can be seen. The first is through the space frame and onto the reservoir, the second is down the spine and the different lobby levels of the lodging.
The parking layout to the left was the first proposed system. Although it relates to the footprint of the resort (completing the circle), there is excessive pedestrian circulation between the car and the entry into the resort. There is also the problem of walking through the flow of traffic and between parked cars.

The part of this scheme that is used in the final design solution, is the circular pedestrian area located between the parking area and the major entry area.

This parking layout solution offers a much more functional approach, along with a more fluid vehicular and pedestrian flow. This solution rids itself of the “sea of asphalt” problem, with no more than 50 parking spaces located in one asphalt area. The solution blends into the site, and is not a scar upon it.
DESIGN SOLUTION

PLAYBOY CLUB
RESORT HOTEL
GEIST RESERVOIR  INDIANAPOLIS, INDIANA
SUMMARY OF MAJOR SPACES

BOTTOM LAKEFRONT LEVEL

1. Major Lakefront Entry
   (including Shower and Bath Facilities)
2. Lakefront Hotel Rooms (39 rooms)
3. East-West Lakefront Entries
   (including Shower and Bath Facilities)

BOTTOM ATRIUM LEVEL

4. Second Level Rooms (32 rooms)
5. Gallery and Display Space
6. Convention Space
7. Raquetball Courts
8. Health Spa Bath and Locker Rooms
9. Sauna, Steam Bath, Massage, Eucalyptus Rooms
10. Weight and Exercise Room
11. Swimming Pool and Whirlpool area
12. Mechanical Space

MIDDLE ATRIUM SPACE

14. Major Hotel Lobby Space
15. Hotel Administration Area
16. Elevated Pool Side Bar and Lounge
17. Large Executive Suites (16 rooms)
18. Second Level Convention Space Hotel Rooms (8 rooms)
19. Shopping Facilities (including Hair Styling, Small Food Store, Liquor Store, Clothing Store, Magazine and Smoke Shop)
20. Gameroom (including Billiards, Pinball, Foosball, Game Tables)
21. Major Hotel Entry
22. (cont)
SUMMARY OF MAJOR SPACES (cont)

TOP ATRIUM LEVEL

23. Major Restaurant, Bar and Lounge Entry
24. Major Restaurant Area
25. Breakfast and Lunch Restaurant Area
26. Food Prep and Storage Area (waitress station)
27. Bar and Dance Floor Area
28. Restaurant Lounge
29. Outdoor Lounge Area
30. Outdoor Dining Area
31. Hotel Equipment and Supply Entry
32. Restaurant and Bar Supply Entry
Pool Atrium Space Frame

Typical Lodging HVAC Layout
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