It is extremely easy to play a slot machine. One simply deposits the proper coin; nickel, dime, quarter, or silver dollar in the appropriate slot. Next one pulls the arm of the machine down which sends the wheels spinning. If the symbols stop in one of the many payoff sequences the player is in luck and several coins will come flying out the payoff slot.

One slot machine is approximately 1'8" wide, 1'6" deep and several feet tall. Most Nevada casino have several hundred slot machines are found in all public places in Nevada. People usually prefer to be out in the middle of everything when they play slot machines. Several change girls and floor men are needed to keep the slot machines running. Casino owners take great pain to locate their slot machines in the busiest parts of the casino, so that customers will be sure to see them.

**Blackjack**

Blackjack or 21 is nearly as popular as craps in Nevada casinos. It, like many other forms of gambling, originated in France. Blackjack can also be played privately but this paper will only deal with the casino game of Blackjack.

In the casino game of Blackjack the house supplies a dealer. The idea of the game is for both the dealer and the players to get as close to 21 as possible without 'breaking' or going over 21. The easiest way to win is by drawing an ace (which counts for either 11 or 1) and a 10-card (either a 10 or a picture card). This two card 21 is called 'blackjack' and thus the name - blackjack. All face cards and 10-cards are always with 10 and all numbered cards are worth face value.
The dealer starts by shuffling a 52 card deck. He exposes the top card and places it on the bottom of the deck which is known as 'burning' a card. This is to let him know when he has dealt through the whole deck, and it is also a preventive measure from him dealing from the bottom of the deck. Each player places his wager in front of him and the and the dealer then distributes two cards, one face down and one face up to each player. If a player has a blackjack he immediately exposes it and wins unless the dealer also has a blackjack. This is due to the fact that the dealer wins all ties which gives the house it's advantage. "After the first two cards are dealt the player on the dealer's left indicates whether he is satisfies or wants to be hit with another card." A good player will probably stat at 11 hoping the dealer will go over his own draw. It is usually best to draw another card whenever a player has less than 17. All of the players will have the opportunity to take one or more cards to try to get as close to 21 as possible. The dealer then exposes his own cards and plays out his own hand trying to get to 21 or going over 21 in the process of bettering his hand.

All players play against the dealer and win even money whenever their hand is better than his. In addition, a blackjack pays a player 21 1/2 times his bet. Actually the dealer has very little choice in taking cards. He must take an additional card whenever he draws a 16. He must also draw an additional card when he has a soft 17 (17 involving at least 1 ace). A dealer isn't allowed to take another card if he has 17 showing.

Some options that can be included in playing 21 are the use of two or more decks which are dealt out of a devise called a shoe.
The players also have the opportunity to 'double down' which is doubling their bet at certain times and 'splitting' certain pairs. "A 21 table is the shape of a semicircle characteristically with a leather edge and a blue or green belt layout. The layout contains seven wagering places." They are often referred to as first base (farthest right), home plate (opposite the dealer), and third base (farthest left). These tables are about 3'6" long, 5' wide and 3' high. Most American casinos have more blackjack tables than any other game. The game isn't as active as any of the previously mentioned games, but it is very popular with the more serious gamblers.

**Baccarat**

Baccarat is one of the most popular casino games in Europe especially at Monte Carlo. It is considerably less popular in the United States so I will only briefly describe it. Baccarat is surprisingly enough the "easiest game to play and bet, since no decisions are required of the player. The object of the game is for the players to get a hand closer to the value of nine than the banker's hand. Tens, jacks, queens, kings count as zero. Aces count as one and other cards count according to their face value." "A baccarat table is oblong with six numbered seats on each side. In the center of the table is a caller with six players on both his right and left and two dealers opposite. Baccarat table are usually partitioned off from the rest of the gaming area to attract the big betters exclusively. Because of high, minimum bets at the baccarat table, large betters are in fact the only users of the table."
Keno

Keno is another less popular casino game. It is a bingo type game that offers very poor odds to its players. The house takes a 20 percent profit in keno. Keno is, however, a somewhat popular games amongst beginning gamblers. It's an easy, carefree game which doesn't usually take the players for a very high loss. It's a long shot type game where one risks very little to get much.

Other games that are sometimes played in casinos are the ancient and once very popular game of Faro, the American standard card games of poker and the wheel of fortune.

Conclusion

In both European and American casinos a carefully engineered atmosphere has been created. The European casinos have an air of sophistication and aristocracy. The interiors are usually very plush and the gambling is at a moderate pace. The American casinos of Nevada are quite different. They contain flashy, modern casino equipment and are all lit up with glittery neon signs and posters. The gambling is extremely fast and haphazard. They usually have no windows in the gaming rooms to remind a player if it's day or night, since 24 hour gambling is permitted.

The designers of Atlantic City's casinos should observe the existing Nevada casinos at Reno and Las Vegas and the European casinos in England and Monte Carlo. But since Atlantic City is different from the environments here they can become very different spaces. The absence of windows is only necessary if the casinos will be open day and night. Atlantic City casinos can, however, make use of the Las Vegas ideas of spectacular shows and events run in conjunction
with the gambling. Other forms of recreation and entertainment can also be offered because of the proximity to the water. In conclusion, I feel that Atlantic City casinos should attempt to capture some of the glitter and excitement of the Las Vegas casinos, the sophistication of Monte Carlo and the wide range of entertainment and recreation of the Caribbean casinos.
CASINO PERSONNEL

CASINO MANAGER

ASSISTANT MANAGER

2 ACCOUNTANTS

CASINO HOST (P.R. MAN)

CREDIT MANAGER

ASSISTANT MANAGER

2 SECRETARIES

6 ROULETTE TABLES

GO BLACKJACK TABLES

3 DECK G. TABLES

APPROX. 300 SLOT MACHINES

9 CRAPS TABLES

GRAY REPRESENTS
1 OF 3 SHIFTS

MEN

NOTE: WAITRESSES, BARTENDERS, PORTERS, DOORMEN, BouncERS, AND CUSTODIANS ARE ALSO REQUIRED
VISITORS ANALYSIS

*Sahara
*Boardwalk
*Hotel/Casino
VISITOR ANALYSIS

"Existing gaming areas provide evidence that casino gaming can act to generate impressive visitor volumes as indicated by the following statistics:

<table>
<thead>
<tr>
<th>Existing Gaming Location</th>
<th>Year</th>
<th>Annual Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Las Vegas</td>
<td>1976</td>
<td>9,769,000</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>1975</td>
<td>1,755,000</td>
</tr>
<tr>
<td>Bahama Islands</td>
<td>1974</td>
<td>1,388,000</td>
</tr>
</tbody>
</table>

Las Vegas enjoys an average annual hotel and motel room occupancy of 82%. The Las Vegas experience also indicates that there is an inherent compatibility between conventions and gaming facilities. 8

There are approximately 52 million people living within a 300 mile radius of Atlantic City. This 'primary market area' has an estimated 37 million people that are of legal age to gamble. Studies indicate that approximately 2,100,000 people residing within Atlantic City's prime market area visited the gaming locations previously mentioned. Studies also show that as many as 7.2 million people will visit Atlantic City yearly by 1984.

The average length of stay at a gaming area is three days, with a double occupancy of 1.8 people per room. Daily visitor expenditures in Las Vegas "exclusive of gaming, average $50 for tourists and $60 for conventionattendees." 9 Therefore the majority of the guests at the hotel will come from a high income bracket. However, the patrons of the restaurants, bars, and casino will come from a variety of economic backgrounds. These patrons may or may not be guests of the hotel. They may come from other hotels of even from nearby cities. This indicates that all public spaces in the complex must be versatile to accommodate the variety of users.

Source: "Casino Perspective"
| Source: Hoover - Dam nation |

| $100 or less ▼ |
| Hundreds of dollars ▼ |
| Thousands of dollars ▼ |
| Recreational vehicle  □ |
| Car □ |
| Boat □ |
| Plane □ |
| 1 week □ |
| 4 days or less □ |
| 1 day or less □ |
| No frequency □ |
| 1 visit a year □ |
| 2 or more visits a year □ |
| Frequent visits □ |

| Youth |
| Junior |
| Elderly |
| Military |

| Regular or daily travel |
| Frequent or occasional travel |
| Infrequent or non-existent travel |

| Residence and visitation |
| Residence and travel |
| Residence and visitation
<table>
<thead>
<tr>
<th>Frequency of Visit</th>
<th>Residence Category</th>
<th>Frequency of Visit</th>
<th>Residence Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100 or less</td>
<td>Youth</td>
<td>$100 or less</td>
<td>Youth</td>
</tr>
<tr>
<td>Hundreds of Dollars</td>
<td>Family</td>
<td>Hundreds of Dollars</td>
<td>Family</td>
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<tr>
<td>Thousands of Dollars</td>
<td></td>
<td>Thousands of Dollars</td>
<td></td>
</tr>
<tr>
<td>Recreational Vehicle</td>
<td></td>
<td>Recreational Vehicle</td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td></td>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>Boat</td>
<td></td>
<td>Boat</td>
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</tr>
<tr>
<td>Plane</td>
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</tr>
<tr>
<td>1 week</td>
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<td>1 week</td>
<td></td>
</tr>
<tr>
<td>4 days or less</td>
<td></td>
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</tr>
<tr>
<td>1 day or less</td>
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<td>1 day or less</td>
<td></td>
</tr>
<tr>
<td>No Frequency</td>
<td></td>
<td>No Frequency</td>
<td></td>
</tr>
<tr>
<td>1 visit a year</td>
<td></td>
<td>1 visit a year</td>
<td></td>
</tr>
<tr>
<td>2 or more visits a year</td>
<td></td>
<td>2 or more visits a year</td>
<td></td>
</tr>
<tr>
<td>Frequency visit</td>
<td></td>
<td>Frequency visit</td>
<td></td>
</tr>
</tbody>
</table>

Source: Hoover - Dam-nation
BUILDING TYPE ANALYSIS

*Sahara
*Boardwalk
*Hotel/Casino
BUILDING TYPE ANALYSIS: I-HOTEL
*Inter-Continental Hotel, Sharjah*

The Inter-Continental Hotel is a "self-contained environmentally-controlled oasis," on the Arabian Gulf. It has a 16 story atrium "formed by two sloping guest wings and a sloping glass wall on the third side." It is being analyzed because of its oasis concept and the structural, and environmental problems due to Sharjah's extreme daily temperature changes. The 16 story hotel was designed by the architects collaboration.

Atrium Screen
A. Two 45m. intersecting main trusses
B. Two diagonal sloping trusses
C. Main truss at entry
D. Secondary truss supporting the atrium screen

Guest Wing Structure
E. Concrete "A" frame supporting structure 4.5 m.o.c.
F. Sloping concrete shear walls 4.5 m.o.c.
BUILDING TYPE ANALYSIS: I-HOTEL

Concepts

G. Triangular, node-like plan
H. Inwardly tilting guest-room wings
I. Large open atrium at vertex of triangular plan

Orientation

J. Guest-rooms oriented towards water
K. Guest room corridors oriented towards atrium
L. Activity spaces on lobby floor

Circulation

M. Single loaded guest corridor
N. Central elevator shafts
O. Enclosed stairs at end of corridors

Unique Features

P. Twelve story column free atrium
Q. Opaque glass enclosure for energy conservation.
R. Atrium "oasis" landscaped with tropical trees, plants, fountains, and pools
BUILDING TYPE ANALYSIS: II-HOTEL
*Hyatt Regency, Cambridge, MA

The Hyatt Regency at Cambridge faces Memorial Drive along the Charles River. The "16-story pyramidal structure" is formed by stepping-back to exposes terraces. This hotel is being analyzed because of its well designed guest rooms, and exciting 14-story atrium. The 488 room Regency was designed by Graham Gund.

Orientations

A. Terraced rooms viewing up and down river
B. One half nonterraced rooms view downtown Boston
C. One half nonterraced rooms have inside balconies overlooking atrium
D. Atrium window facing Charles River
BUILDING TYPE ANALYSIS: II-HOTEL

Concepts

E. Two offset hotel towers
F. Atrium at vertex of towers with hotel suppoast facilities

Structure

G. Concrete columns and beams on a 14’x25’ bay system
H. Exposed concrete columns support elevators
I. Space frame supports glass atrium wall

Circulation

J. Double load hotel corridors
K. Central elevators and escalators
L. Enclosed stairs at ends of corridors

Unique Features

M. Guest rooms with dressing rooms
N. Exposed all glass elevator
O. Revolving rooftop lounge
P. One hundred ft. high window wall in atrium for dramatic lighting
Q. Attractive landscaped atrium
BUILDING TYPE ANALYSIS: II-MALL
*Les Terrasses, Montreal*

Les Terrasses is a "multi-function structure situated in the core of Montreal's prime shopping district." The "multilevel retail mall" was chosen because of its exciting market spaces and dramatic circulation system. The 165,000 sq. ft. mall was designed by the firm of Webb, Zerafa, Menkes, and Housden.

**Unique Features**

A. Rooftop garden terraces with access to upper mall levels
B. Sky-lit, landscaped courts
C. Directional supergraphics
BUILDING TYPE ANALYSIS: III-MALL

Circulation
F. Continuous triangular spiral
G. Stairs to various levels
H. Escalator at triangle nodes
I. Pedestrian connection between Maisonneuve Boulevard and St. Catherine Street

Structure
J. Exposed concrete columns
K. Exposed concrete beams
L. Concrete waffle slabs
BUILDING TYPE ANALYSIS: IV-CASINO
"Winkler Casino and Cafe", Salzburg, Germany

This casino and cafe is located on top of a rocky cliff looking down on the city of Salzburg. The building corresponds well with the existing building and historic context of the city. It also has well designed adjacent spaces which allow the nongambler a share in the excitement of playing. The tourist complex was designed by the German team of Cziharz, Meixner, and Lenk.

Concept
A. Existing historic building
B. Cafe
C. Casino

Structure
D. Steel skeleton
E. Exposed space frame roof structure
BUILDING TYPE ANALYSIS: IV-CASINO

Orientation

F. Restaurants and cafe's given good views and terraces
G. Casino separated off to side of building
H. Bar and entry act as buffer between nongamblers and casino

Circulation

I. Simple linear circulation through gaming area
J. Slight level changes to separate adjacent spaces and offer maximum viewing

Unique Features

K. Gambling can be viewed while seated or standing in adjacent bar
L. Adjacent spaces well integrated with casino
M. Building designed within historic context of city
APPENDIX II: DESIGN DEVELOPMENT

*Sahara
*Boardwalk
*Hotel/Casino
CONCEPTUAL DESIGN

*Sahara
*Boardwalk
*Hotel/Casino
SUMMARY
Conceptual Design

I. Program responses: Separate information two major ideas

A. Podium: All public spaces
   1. Parking underground
   2. 1st level - public
   3. 2nd level - semi public
   4. 3rd level - semi private
B. Hotel tower
   1. Podium roof - sports
   2. Hotel rooms - all to view ocean
   3. Roof top restaurant - view ocean

II. Main ideas

A. Two major orientations with different characters
   1. Orient north side to street and city
   2. Orient south side to boardwalk and beach
B. Exciting building desired
   1. Multi-level casino and adjacent spaces
   2. Large open atrium views into other spaces

III. Energy concerns

A. Wind
   1. Tower stretched along east-west axis to repel winter winds
   2. Open hotel rooms up to south for summer breezes
B. Sun
   1. Lean tower back to passively heat hotel rooms and sports level
   2. Angle tower 30° to street for best solar orientation

IV. Circulation

A. Vertical circulation at both ends of tower
B. Horizontal circulation diagonal across site
LEVEL 1
- PUBLIC SPACES

LEVEL 2
- SEMI PUBLIC

SECTION

VENTILATION
CHIMNEY
LEVEL 3
+24 FT.

CONVENTION SPACE
KITCHENS
LOBBY
CABARET

ROOF LEVEL

TENNIS COURT
LOCKER ROOMS
POOL
DECK
GREENHOUSE
GUEST ROOMS

ROOF TOP

MECHANICAL
ROOF TOP
RESTAURANT
SCHEMATIC DESIGN

*Sahara
*Boardwalk
*Hotel/Casino
SUMMARY

I. Program responses
   A. Twelve levels single rooms:  2 rooms per bay
   B. Three levels suites:  1 room per bay
   C. Three levels luxury suites:  1/2 room per bay

II. Massing
   A. Pyramid shaped tower to break up large mass
   B. Raise tower off podium with glazed in sports area

III. Structure
   A. Exposed truss-like steel frame from imagery of amusement piers
   B. Angle tower and structure 45° to street instead of 30°
      1. Two hotel rooms per structural bay
      2. Three parking spaces per structural bay

IV. Circulation
   A. Changed to one central elevator core
   B. Fire stairs stay at both ends of tower
PRELIMINARY DESIGN

*Sahara
*Boardwalk
*Hotel/Casino
SUMMARY

Preliminary Design

I. Program responses
   A. Twelve levels single rooms - 216 rooms
   B. Four levels suites
   C. Four levels luxury suites
   D. Sports on two levels

II. Massing
   A. Sawtoothed glazed north and east elevations meeting back of hotel rooms
   B. Add glazed canopy on northeast corner
   C. Vertical and horizontal bands on south elevation read equal

III. Structure
   A. Changed to 30 ft. bay for parking
   B. Changed base of structure to columns for parking

IV. Circulation
   A. 'Piggy-backed' firestairs for tower
      1. Leans back like tower
      2. Follows pyramid form of tower
   B. Triangular firestairs for podium to incorporate level changes
      1. Street levels: 0 ft., 12.5 ft., 25 ft.
      2. Boardwalk levels: 5 ft., 17.5 ft., 30 ft.
   C. Terraced circulation from boardwalk up to sports level
   D. Add more elevators:
      1. Four passenger elevators
      2. Three service elevators
Study Model
REFERENCES

*Sahara
*Boardwalk
*Hotel/Casino
FOOTNOTES


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3. Atlantic City Department of Planning and Development, *Atlantic City Master Plan Summary*, pg. 10.


5. Ibid.


8. Atlantic City Department of Planning and Development, *Casino Perspective*, pg. 2.

9. Ibid., pg. 6.


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