# HOTEL ROOM DESIGN - AN INTERNATIONAL SURVEY

BY

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A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfilment of the requirements for the degree of Master of Architecture

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August 1973.

## ABSTRACT

This thesis has been a modest attempt to introduce information on the factors which influence the efficient design of hotel rooms with particular reference to typical units of high-rise hotels.

In Chapters I and II, the basic requirements and planning of the hotel room are analysed and described. To broaden the scope of the study, the discussion is expanded to include hotel floor planning in Chapter III. International examples of hotel rooms which illustrate the principles developed in the study are set forth in the last Chapter.

The result of the study is a ratio which is related to the width and depth of the hotel bedroom. This ratio is intended to be used as a guide for the design task.



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## ABSTRAIT

Cette thèse est un modeste essai d'information sur les facteurs qui influencent l'efficacité du dessin de chambres d'hôtel, et plus particulièrement des unités typiques des hauts immeubles.

Les chapitres I et II analysent et décrivent les nécessités de base et l'agencement de la chambre d'hôtel. Afin d'étendre l'objet de cette étude, la discussion est élargie à la planification d'un étage dans le troisième chapitre. Le dernier examine des exemples de chambres d'hôtels de different pays qui illustrent les principes développés dans cette étude.

Le résultat de ce travail est un rapport mathématique entre la largeur et la profondeur de la chambre à coucher. Nous proposons ce rapport comme guide pour un dessin planifié.



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ACKNOWLEDGMENTS

Even a modest study such as this one represents a valuable research experience which has been made possible by the combined efforts and support of many resources and individuals to whom the author wishes to express his deep appreciation.

Indebtedness is owed to the people in hotel associations, hotels, executive officers of hotel chains, reader services departments of architectural magazines, and libraries, from whom the author has received many very useful references for this study.

The author is most grateful to his advisor, Professor Radoslav Zuk, for his great understanding and persistent guidance during the research years at School of Architecture of McGill University.

Special gratitude is extended to Mr. Michael H. Ross and Mrs. Morley McClung for their final reading assistance. Their comments have led to many improvements. Thanks go to Mrs. Carolyn Pinkerton and Miss Leona Perry for their suggestions, editing, and final typing and to many friends for their personal support.

Finally, I offer recognition to those architects behind the projects which I have reviewed, and wish to record special dedication of my work to my parents and those individuals acknowledged above, as a small token of affection and admiration.

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# INTRODUCTION

Due to the development of rapid transportation systems, advanced cultural exchange and the effect of extensive media development, people's desire to travel has been aroused. This has produced the tourism boom; for business, for visits, for conferences, for sight-seeing, for sports and for vacations, travellers of all kinds are moving from place to place, from country to country. This increase in world travel has been accompanied by a corresponding development of hotel accommodation.

To begin with, there are many types of hotels:

i) High rise/Low rise

ii) City/Country

iii) Business/Vacation

iv) Transit Hotel

v) Residential Hotel

vi) Motor Hotel

Many more can be added to this list; however, these appear to be the most prominent.

In these hotels there are two principal areas: one is the so-called public area (i.e. convention and banquet facilities, exhibitions, rentals, restaurants, public services, etc.) and the other is the guest room area (i.e. guest room floors - guest rooms and room services areas).

The space allocation devoted to each of these two areas in the pre-1960 period was approximately 30% for public areas and 70% for guest rooms. From 1960 to around 1968 this figure changed to

a close 50%/50% ratio. The current trend is a 50%/50% ratio, with a distinct tendency toward public areas. The reason for the current trend is credited to the need for larger convention and garage space.

Hotel room areas are seemingly becoming more of a premium. They are considered as the principal commodity the hotel has to sell, and consequently, derive most of the income. The success of the hotel depends on the satisfactory and economical layout of this area. Hence, the design of hotel rooms and typical bedroom floors is of extreme importance.

Within the scope of the hotel guest room area there are the following main room types:

i) Single
ii) Double
iii) Twin
iv) Studio
v) Combination
vi) Suite

This list can be expanded to include some 40 different types. Nevertheless, all room types conform to certain design patterns because of the similarity of their functional requirements.

The emphasis of this study is on the typical room unity and those indispensable elements that will manipulate the room size. A review of rooms in high-rise city and chain hotels (i.e. Hilton, Four-Seasons, Holiday Inn, Western International, Great Metropolitan, etc.) revealed that in most cases, due to the site condition, and economic factors, the room size is designed to a reasonable minimum.

It is not possible to design a standard size of hotel room which will satisfy everyone, but it is possible to determine a

dimensional ratio which will govern the design.

The aim of this study has been to define this dimensional ratio which is related to the width and depth of a typical room unit. By referring to this ratio, subsequent designers may produce the room size without spending much time to work it out. It is hoped that the knowledge of this same methodology of research can be applied to broader aspects of design, such as hospital design, housing design, etc., in which the human scale - a stable figure - is always one of the main dominant factors.

# I

## REQUIREMENTS OF THE HOTEL ROOM

When considering the planning requirements of hotel rooms, the primary concern is that the room is made to be used by people and the design must therefore relate to the human scale, as well as appeal to man's feelings and comfort. The basic function of the hotel room is to provide the traveller with a place to rest and to regain his strength. Activities associated with a traveller and his anticipated needs are as follows:

1. Packing, unpacking and storage
2. Dressing and undressing
3. Sleeping
4. Relaxing i.e. reading, writing, listening to radio and watching television
5. Entertaining visitors.

Although food storaging and preparation, eating, and clothes washing and drying could be added to the list, these will only be considered under special circumstances for long term rentals.[1]

Generally, there are two areas in the hotel room unit plan to serve the traveller's needs:

1. Bedroom area: beds, sitting area and dressing area
2. Bathroom area: bathroom, foyer and closet area,

Fig. 1-1 shows this idea diagrammatically.

[1]Time Saver Standards - A Handbook of Architectural Design, McGraw-Hill Inc., 4th ed., (New York, 1966), p. 1094.

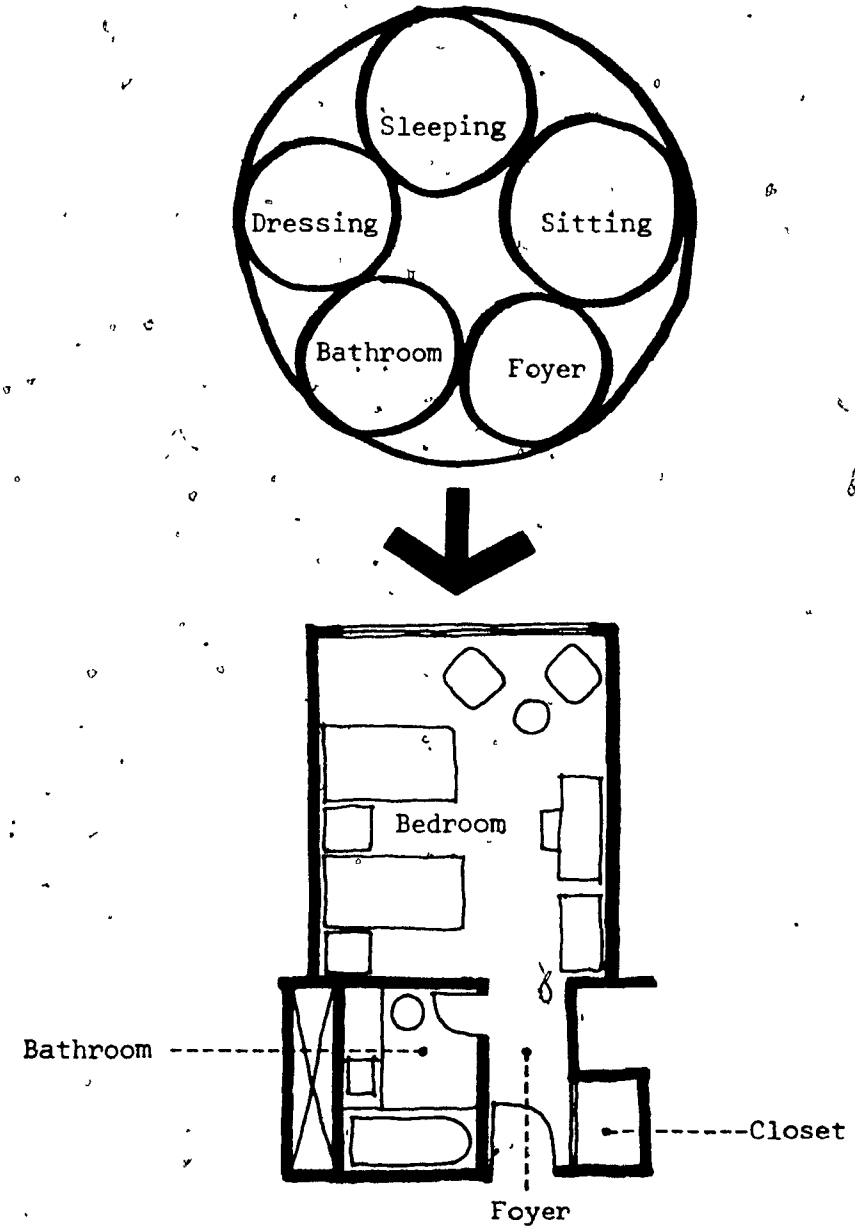



Fig. 1-1

These areas are shaped to enclose all the fittings and pieces of furniture for the guest's convenience and comfort.

1.1 Furniture, Equipment and Facilities

The following pages list the furniture, equipment and facilities to be provided in the hotel room with design notes and recommended dimensions, in a attempt to provide the information at a glance and used as a guide.

1.1.1 Bedroom

1.1.1.1 Features and Facilities

i Beds

Hotel beds must satisfy a number of requirements: comfort, height, length and width. Beds must be durable and resistant to damage and be such that they are easily made up.

Types:

(a) Single Bed

(b) Double Bed

(c) Three Quarter Bed

(d) Sofa Bed

The sofa bed has a seat which unfolds to form a full-size bed with spring mattress. It can be used as a sofa for daytime needs and turned into a bed for sleeping.

(e) Studio couch:

This is a bed with a detachable backrest. The backrest makes the seating surface narrower for use as a couch. It can quickly and easily slide out beyond this backrest for bed-making.

All beds must be arranged so that a maid can make them up easily to minimize daily maintenance expense.

Wall surfaces which have the bed close th them should be covered with a heavy duty washable material.

ii. Bedside Table (Night Table)

Next to the bed should be a table, set at a convenient height, on which a breakfast tray can be placed. The guest will also need to be able to reach the lighting, radio, telephone and television controls, all normally located in this table.

iii. Wardrobe (Closet)

A long hanging wardrobe space with a width of between 2'-0" and 3'-0" is needed for the first person, plus an additional foot of width for each additional occupant. At least two shelves are required.

iv. Shelf or Drawer Unit

For storing clothes, a shelf or drawer unit is needed. For short stays, shelves are sufficient for storage. For long stays drawers are preferable.

v. Dressing Table

A dressing table should be provided with a height of at least 3'-0". Drawers should be designed to accommodate cosmetic bottles, etc., but must also be easy to clean. Providing a splash-back on the table surface will prevent the wall from being marked when cleaned.

vi. Writing Table

The writing table can be part of a combination dressing table

writing desk. Provision should be made for storage of postcards, papers and pens in this table. If a pull-out panel is used, its location must be coordinated with surrounding fixtures, furnishings and light sources.

vii. Luggage Rack

A luggage rack which could have space for a trolley underneath should be provided. There must be guards against abrasion by metallic objects such as studs and the rack should be high enough to avoid stress to the user.

viii. Occasional Table

It is desirable that the table is low to the floor for use on a level with the easy chair and equipped with ash tray and standard table lamps.

ix. Upright Chair or Stool

For use at the dressing table or writing table, it can also serve as a rest for bedclothes.

x. General Purpose Chair

A small armchair suitable for use at a dressing table if necessary; it should be very comfortable for simply resting. Perhaps a swivel chair would allow easy access to several things (i.e. desk, television, etc.)

xi. Easy Chair

Primarily a chair for resting (reclining posture), this chair should be of an upholstered nature. One chair per person should be provided.

xii. Communication Devices

(a) Telephone

Telephone facilities are required in each guest bedroom. It is better to obtain a dual purpose instrument which allows outside calls to be made through the main switchboard while permitting internal connection to any department of the hotel by direct dialling. This is referred to as a semi-automatic telephone exchange. In some cases there is provision made for automatic telephone answering, whereby the caller is able to leave a recorded message for the room occupant.

(b) Radio

Radio should be provided in all bedrooms. The operating controls on programmes should be simple for the convenience of the guest.

(c) Television

Provision should be made for television service to each bedroom. Whether the set be permanently installed or portable, it should be provided as demanded by the guest. It is becoming most common for colour television to be installed in hotels. The common screen size is approximately 19".

(d) Service Call System.

A service call system should be provided throughout the bedroom block, including the bathrooms, to enable the guests to summon the staff. The main call system indicator

board should be located in the service room.

(e) Special Service:

The Holiday Inn Chain of hotels as well as the Hilton Hotels today often provide a highly advertised service which is particularly attractive to the businessman. They have a computer tie-in which allows a businessman the services of a secretary (i.e. dictation, typing, notations and so on) through a computer telephone which is part of the telephone system of the hotel.

xiii. Miscellaneous Facilities

Mirrors: A long full length mirror with a suitable light source would prove to a most useful and attractive addition to a hotel bedroom. The mirror should also relate to the size of the area in which it is mounted. In conjunction with the dressing table, there should be a mirror mounted directly above the table surface.

Waste Paper Basket: The basket should be solid sided to conceal contents and must be constructed of an inflammable material.

Ash Tray: Several ashtrays should be prominently set out through the bedroom. Ash trays should have cigarette holders affixed. This precaution is to protect furniture from possible cigarette burns.

Lamps

Linens

Draperies or curtains

Decorations

Notices and general information about the locality, local sightseeing, shopping, about the hotel, its facilities, charges, etc. A notice with explanation of various controls, i.e. heating, lighting, ventilation, is also provided.

Timing device for use of occupant when wishing to watch television for a specified amount of time, whereby the item is turned off at a present time.

Temperature Control: Electronic climate controls for individual room temperature control must be provided.

Miscellaneous Stationeries

xiv. Refrigerator and coffee makers are sometimes found in the bedroom.

xv. Kitchenette: Only the most luxurious suites have this facility and it is then usually provided for those guests with the intention of staying for a long period of time.

xvi. Balcony: The individual balcony adds an extra attraction to the bedroom. It is wise to restrict the use of this feature to those rooms which are located so as to face a prominent view. The balcony adds an added cost factor to the room and should be used with discretion. A lock should be provided on the balcony door for the assurance of the user.

Summary of the features and facilities provided in the bedroom of hotel rooms:

Beds
Bedside Table (Night Table)
Wardrobe (Closet)
Shelf or Drawer Unit
Dressing Table
Writing Table
Luggage Rack
Occasional Table
Upright Chair
General Purpose Chair
Easy Chair

* * *

Telephone
Radio
Television
Service Call System
Special Services (Computer Device)

* * *

Mirrors
Waste Paper Basket
Ash Tray
Lamps
Linens
Draperies
Decorations
Notice and General Information
Timing Device
Temperature Control
Miscellaneous Stationeries

* * *

Refrigerator (optional)
Kitchenette (optional)
Balcony (optional)

1.1.1.2 Dimensions

The basic dimensions and necessary circulation space for various pieces of bedroom furniture are outlined diagrammatically on the following pages:

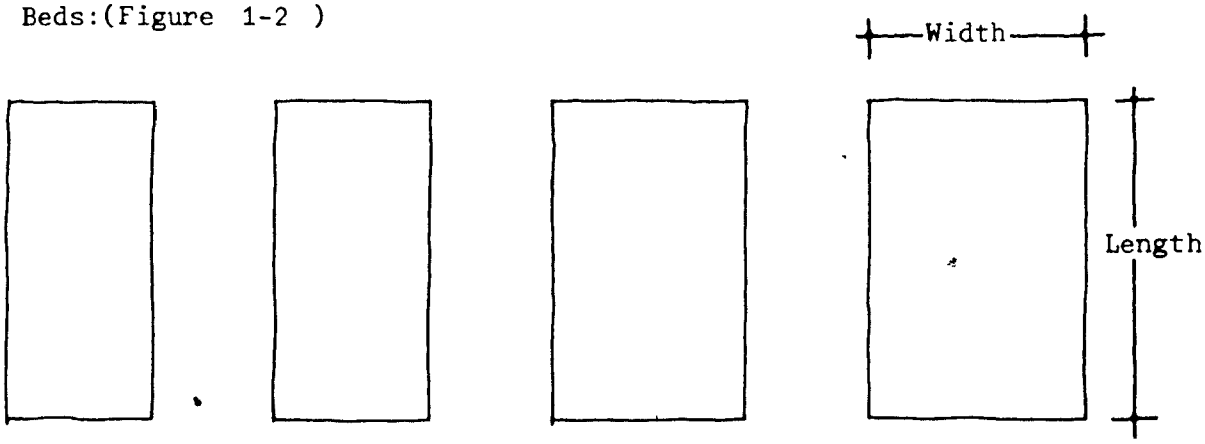
Many types and sizes of furniture are available; those listed are most common and can serve as a basis for the design.

Beds:

| Type / Size | Single Bed | Twin Bed | Double Bed | Three Quarter Bed | Sofa Bed |
|---|---|---|---|---|---|
| Length | 72" - 80" | 72" - 80" | 72" - 80" | 72" - 80" | 72" - 80" |
| Width | 34" - 42" | 39" - 42" | 54" - 60" | 48" - 54" | 36" - 42" |

Note: 39" x 80" similar to metric scale 1M x 2M

Beds:(Figure 1-2 )




single

6'-6" x
3'-0"

twin

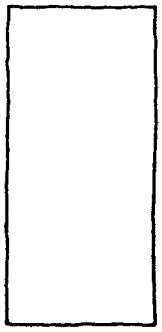
6'-6" x
3' - 3"

three quarter

6'-6" x
4'-0"

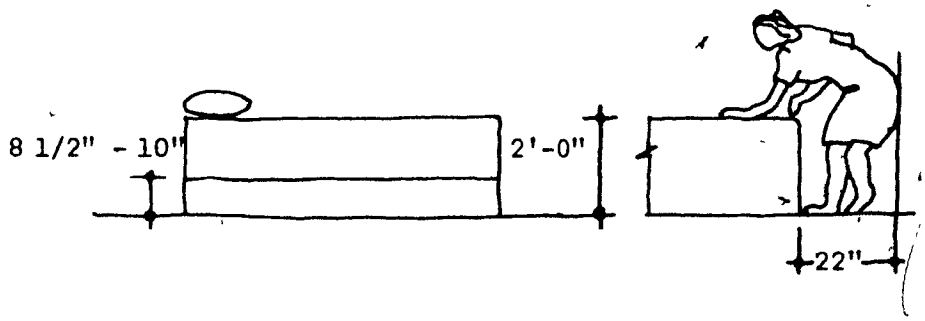
double

6'-6"
4'-6"



divan or
sofa bed

6'-6" x
3'-0"






Scale: 0 5

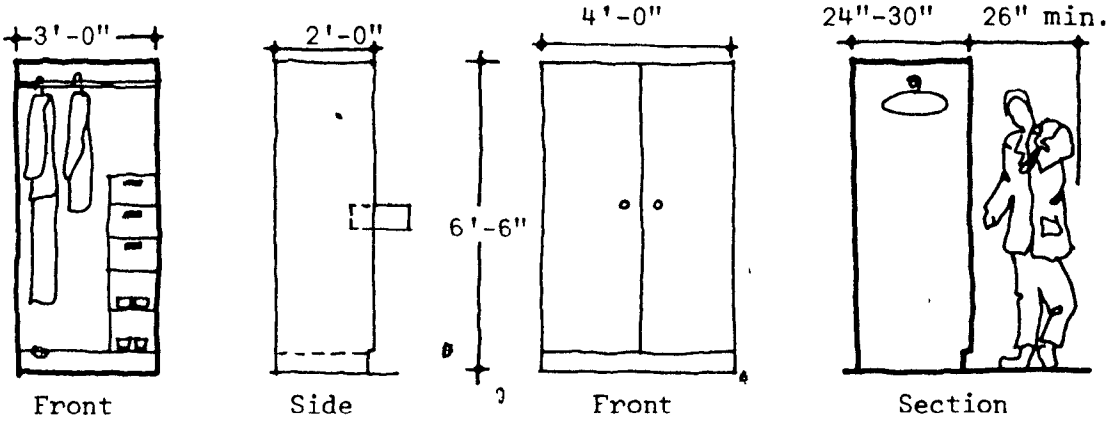
Night Tables: (Figure 1-3 )

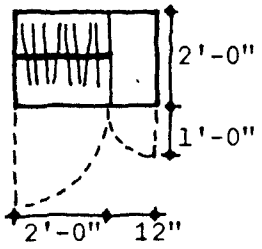
Small:
1'-2" x 1'-6"

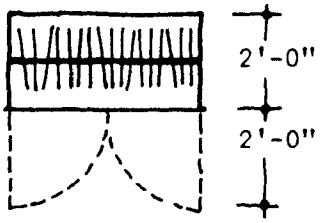
Medium:
1'-6" x 1'-6" to 1"-10"

Large:
1'-2" x 1'-10"

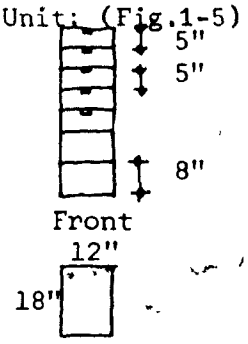
Wardrobes: (Figure 1-4 )



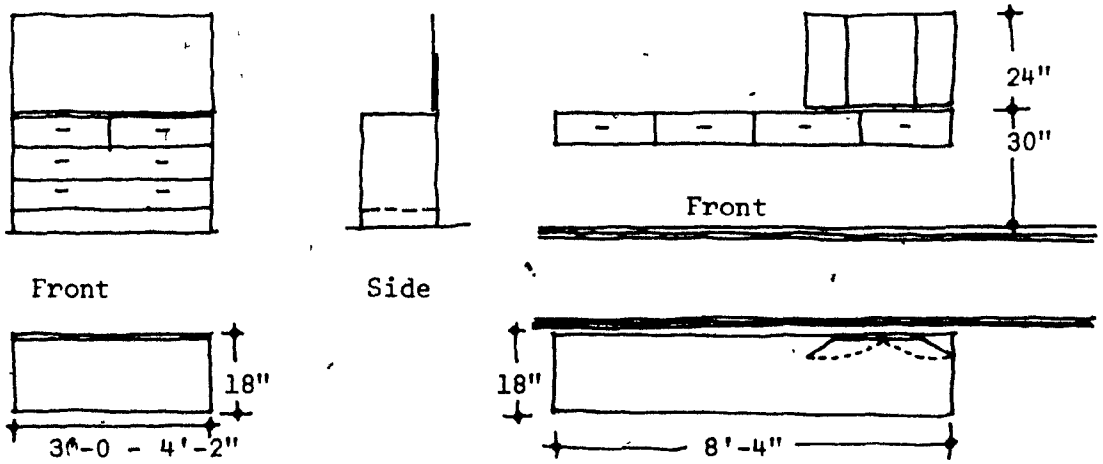




Drawer Unit: (Fig.1-5)



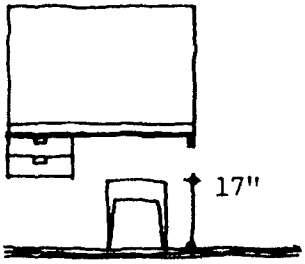

Dressing Table: (Figure 1-6)





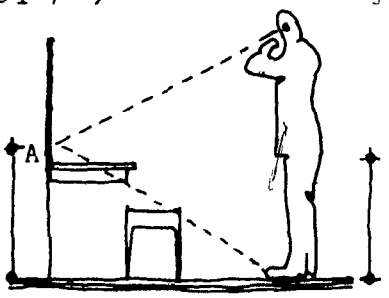

Scale: 0 5

Dressing/Writing Table: (Figure 1-7 )




Front

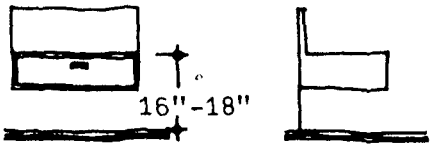

Plan



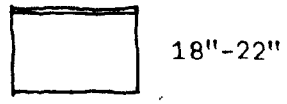

Section

"A" must not exceed half eye-height to achieve full-length view.

Luggage Racks: (Figure 1-8 )

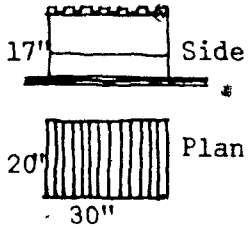



Front Side

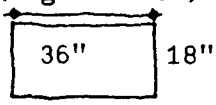



2'-8" min.

Plan




Tables: (Figure 1-9 )

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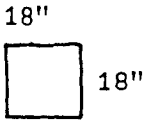


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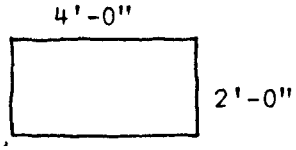


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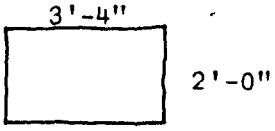
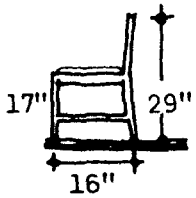



Plan

Chairs: (Figure 1-10)

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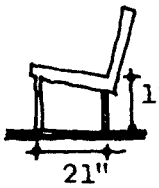


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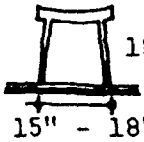


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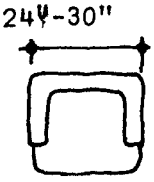
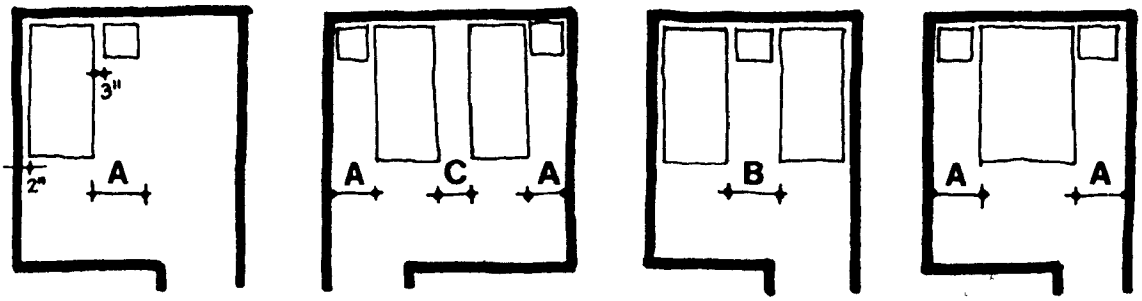



Plan

Scale: 0 2 4

The diagrams below indicate the minimum clearances that should be provided for use of the bedroom furniture. At least 2" should be allowed as clearance between walls and furniture; 3" between furniture units. (Figure 1-11 to Figure 1-13)

Figure 1-11




A = 18" to 24" B = 24" to 30" C = 18" minimum, 27" average

Figure 1-12

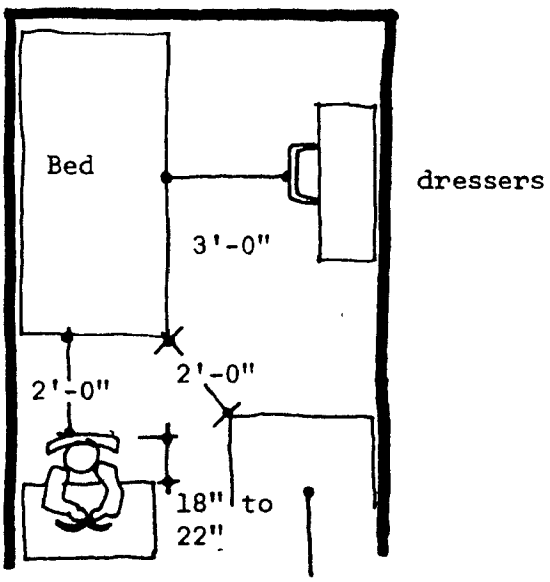
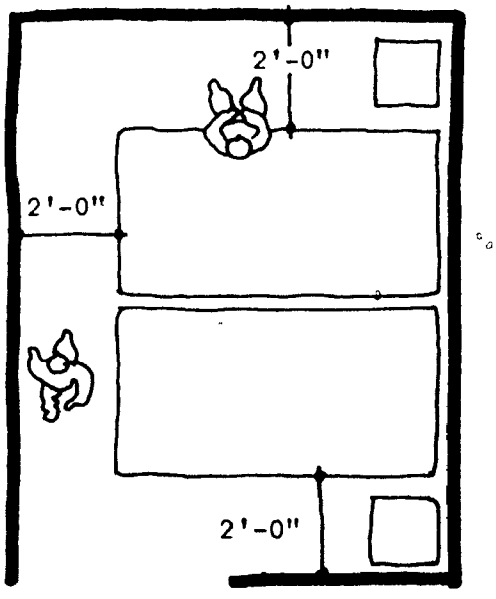



Figure 1-13



1.1.2 Bathroom

1.1.2.1 Three Fixture Bathroom

The bathroom fittings usually include a bath with a shower attachment, a lavatory basin and a watercloset. This type of three fixture bathroom is economical in terms of plumbing and floor area and has become almost standard.

There are 3 ways of plumbing and pipe distribution which affect its arrangement.

i. Plumbing pipes in one wall (Figure 1-14)

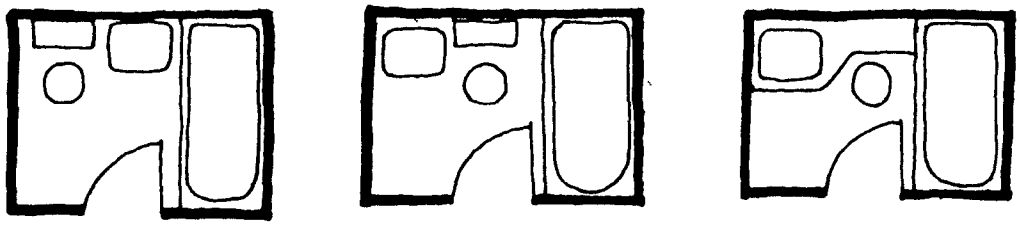


Figure 1-14

ii. Plumbing pipes in two walls (Figure 1-15)

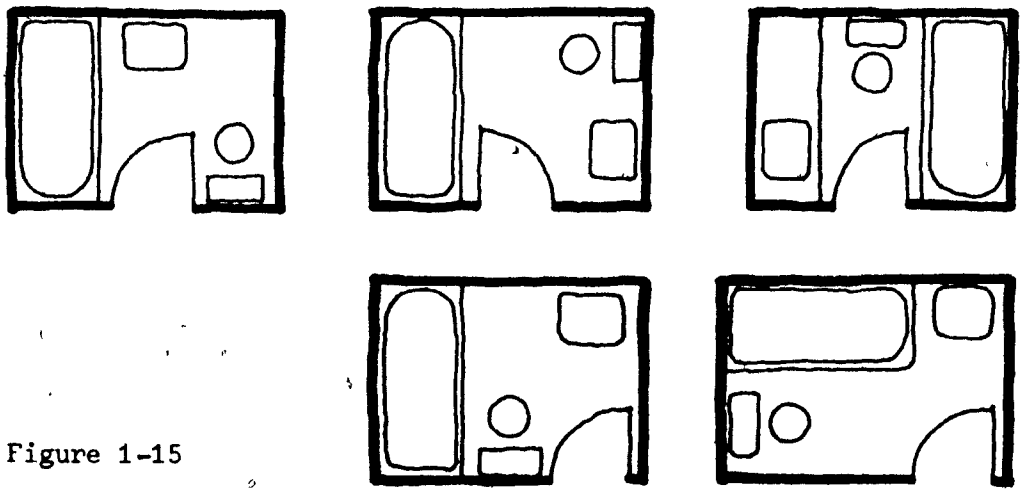
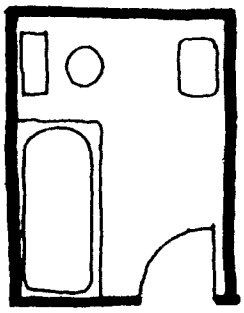


Figure 1-15

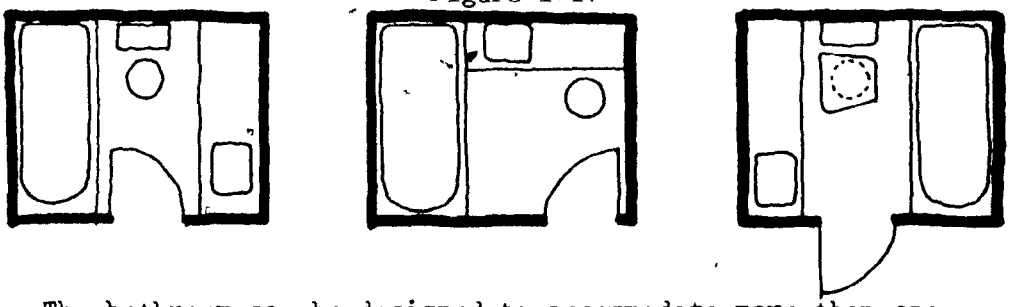
iii. Plumbing in three walls (Figure 1-16)

Figure 1-16



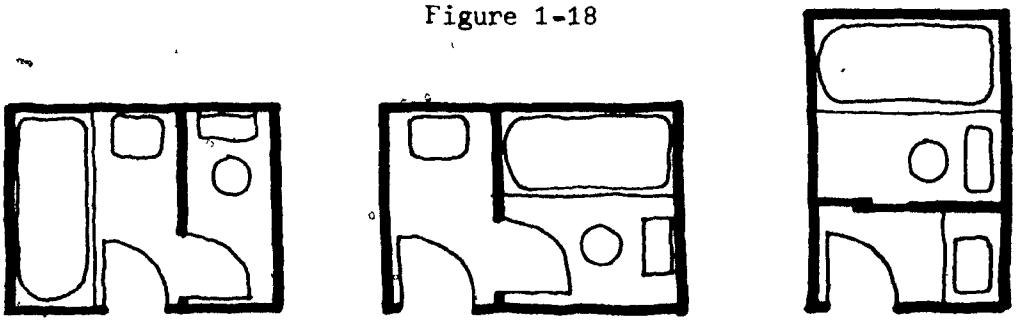
In many hotels the wash basin forms part of the dressing area, which is developed into a make-up table by setting the basin in a plastic-topped counter. (Figure 1-17)

Figure 1-17



The bathroom can be designed to accommodate more than one person at one time. A separate toilet compartment is desirable, closed off with a door. (Figure 1-18)

Figure 1-18



A few hotels, particularly in Europe, provide only showers as part of the hotel room, (Figure 1-19A to Figure 1-19D), or provide corner bath instead of a normal full size bath. (Figure 1-20) There is a considerable saving in the amount of space and water use.

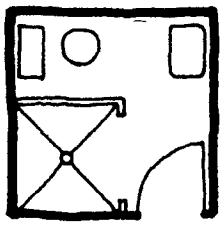


Figure 1-19A

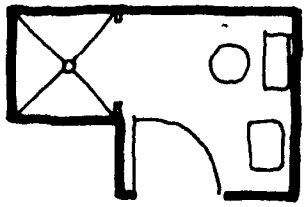


Figure 1-19B

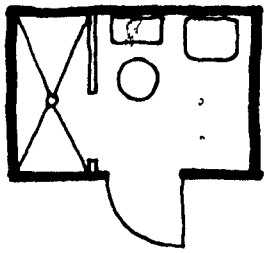


Figure 1-19C

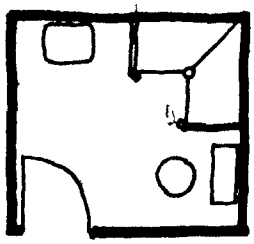


Figure 1-19D

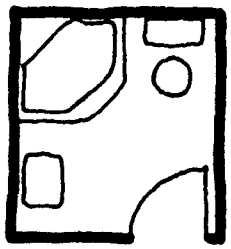


Figure 1-20

1.1.2.2 Four Fixtures

Some European or African hotels provide a bidet in the bathroom. (Figure1-21to Figure1-25) Certain luxurious suites in hotels provide two wash basins. These items form four-fixtures bathrooms too. (Figure1-26to Figure1-28).

Figure 1-21

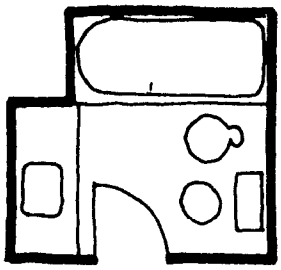


Figure 1-22

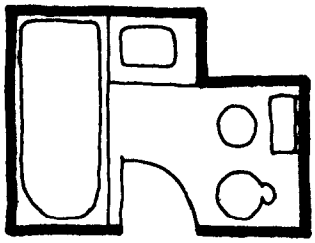


Figure 1-23

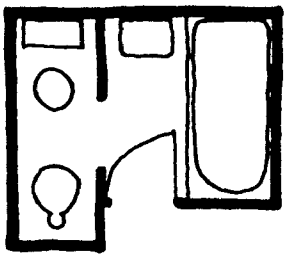


Figure 1-24

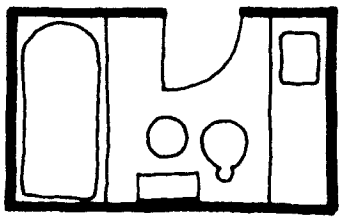


Figure 1-25

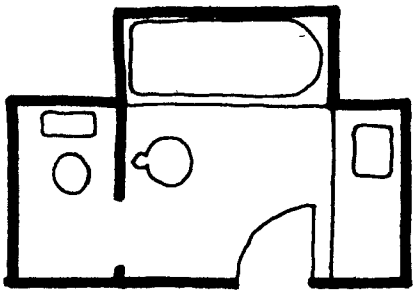


Figure 1-26

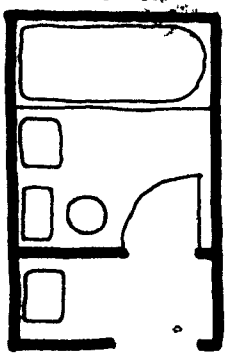


Figure 1-27

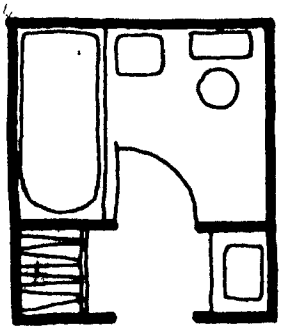
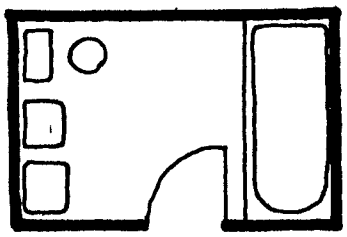


Figure 1-28



1.1.2.3 Features and Fittings

i. Bath Tub

The bath tub should be provided with a grab handle set on the wall above the bath and a recess in the exterior side panel to prevent stubbed toes.

A slip-resistant surface should be provided for either showering or bathing, to prevent falls while moving into or out of the tub.

ii. Shower

A shower is usually built in the wall area above one end of the bath tub. Sometimes a flexible hose shower is installed in place of a wall-mounted one.

When a shower is provided instead of a normal bath, the floor tray and cubicle should be properly designed and watertight. The splashing should be confined to the shower area only. A curtain or door should be provided to prevent the splash.

A mixing valve to adjust the water temperature should be provided for bath, shower and wash basin to prevent scalding or freezing.

iii. Wash Basin

Shelf space should be provided above or under the basin. The shelves above can be incorporated into a cabinet with a mirror on the front panel of the door. It should be fitted tight to the wall surface. The cabinet should also have protected or rounded edges to prevent the user from injuring his head.

Water pressure should not be too high so as to minimize splashing and noise.

iv. Water Closet

The unit should be a type that allows easy cleaning of the floor area around it. The cover of the unit should be such that it can also be used as an extra seat if necessary and therefore must be of sturdy construction. The flushing cistern may be placed in the service shaft in order to save space and to prevent it from being tampered with.

v. Bidet

Besides bath tub, wash basin and water closet, a bidet is sometimes provided in European or African hotels.

vi. Linen Hamper

A built-in or portable hamper adds to the general tidiness of the bathroom.

vii. Disposal Bin

An inconspicuous, yet easily found, disposal bin should be provided. It should be of a nice quality, and it is hoped that its use by the guest will reduce cleaning time.

viii. Drip-Dry Rack

This should be placed above the bath, but not where it will form an obstruction while the bath or shower is in use. This rack can also be used to place a guest towel handy to the bather.

ix. Mirrors

An atmosphere of luxury and spaciousness is created by mirrors. A medicine cabinet is a very useful mounting area for a mirror which could be of the combination variety with mirrored doors on either side and a fixed mirror in the center.

x. Safety Features

- Grab bars can be used for bath tub and/or shower areas and should be located within easy reach. Consideration must be given to their size and the fastening devices used.
- Use of non-skid finishes for floor areas is desirable.
- A door lock that opens automatically from the inside and from the outside in case of emergency should be installed.
- Light switches should be located out of reach of the bath tub area. An acceptable location for the light switch would be just outside the bathroom.
- Electric or radiant heaters should be recessed or protected.
- Lockable cabinets are also a suggestion for the safekeeping of medicines and personal belongings of the guest.

xi. Towel Holder

A wall-mounted type is preferable to keep the floor clear for cleaning. It should be able to accommodate two bath towels and face towels.

xii. Toilet Tissue Dispenser

A double roll fitting is most suitable. It should be simple but sturdy in construction.

xiii. Hooks

At least two hooks should be provided for hanging clothes, hats, etc. These should be fitted to a surface not likely to be affected by condensation, perhaps on the back of the bathroom door.

xiv. Ash Tray

An ashtray fitted to the door or wall near the watercloset should be provided. It should be easy to empty and clean.

xv. Razor Receptable

A socket for an electric razor should be provided in the vicinity of the wash basin. It should be specially designed to eliminate the hazard of any accidental shock. If it is necessary, an adaptor should be provided so that the socket may accept any type of razor.

xvi. Medicine Cabinet

A medicine cabinet should be provided somewhere near the wash basin. It should be well designed for the user's convenience.

xvii. Ventilator

A ventilator should be provided to keep the steam or odour from spreading into the bedroom area.

xviii. Miscellaneous

Bath mat, sponge, soaps, soap dish, toilet tissue, shoe shine strips, drinking glass, bottle opener, facial tissues, and towels should be provided.

Summary of the features and fittings provided in the bathroom of hotel rooms:

Bath Tub
Shower
Wash Basin
Water Closet
Bidet
Hamper
Disposal Bin
Drip Dry Rack
Mirrors

* * *

Grab Bar
Towel Holder
Toilet Tissue Dispenser
Hooks
Ash Tray
Razor Receptacle

* * *

Medicine Cabinet
Ventilator

* * *

Bath Mat
Sponge
Soaps
Soap Dish
Toilet Tissue
Facial Tissues
Towels
Drinking Glass
Bottle Opener
Shoe Shine Strips

1.1.2.4 Dimensions

The basic dimensions and necessary circulation space for various pieces of bathroom features and fittings are outlined diagrammatically on the following pages:

Dimensions in the Bathroom Tub Area (Figure 1-29 )

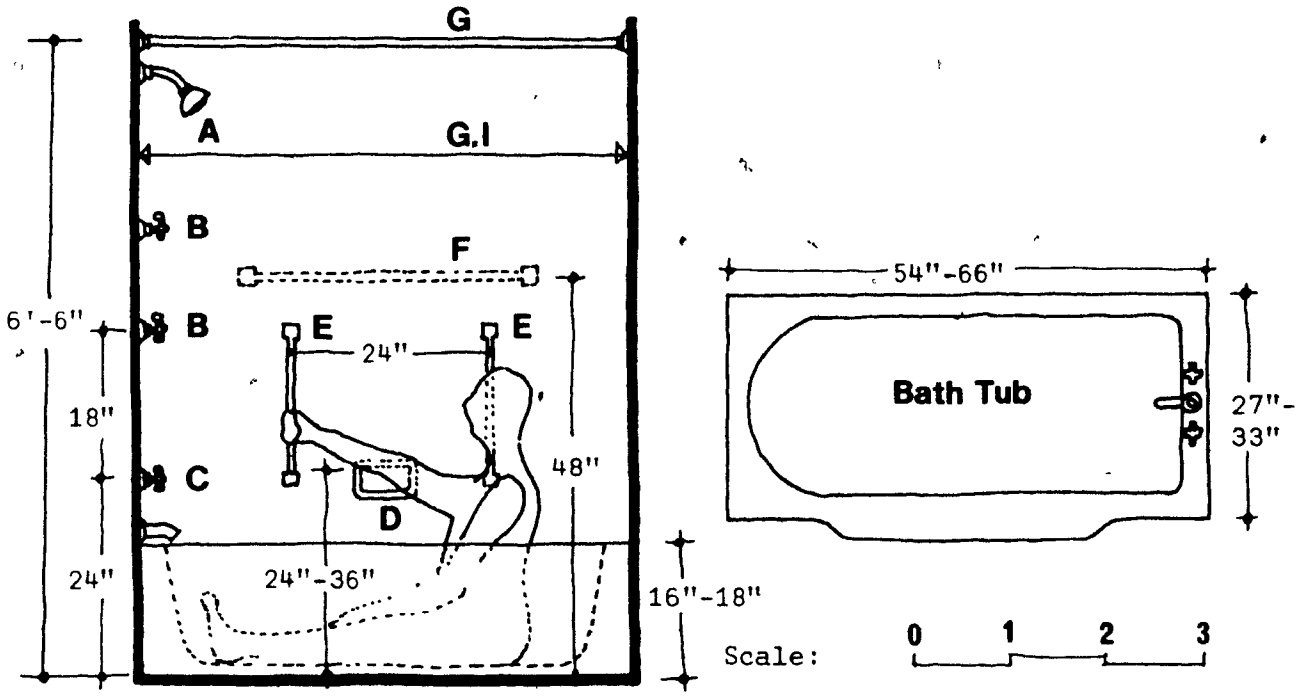



Figure 1-29

| | |
|---|---|
| A, B, and C. | Shower head, shower controls, bath valves and spout. Location must be accessible from outside of tub. |
| D. | Combination soap and sponge holder and grab bar. |
| E. | Vertical grab bars.(Optional.) |
| F. | Towel bar. (Do not use over tub equipped with shower.) |
| G. | Curtain rod. Keep within inside face of tub. |
| G.1 | Alternate, glass shower enclosure in place of curtain. Various types, with and without doors, are available. |

Dimension in the Washroom Basin Area (Figure 1-30)

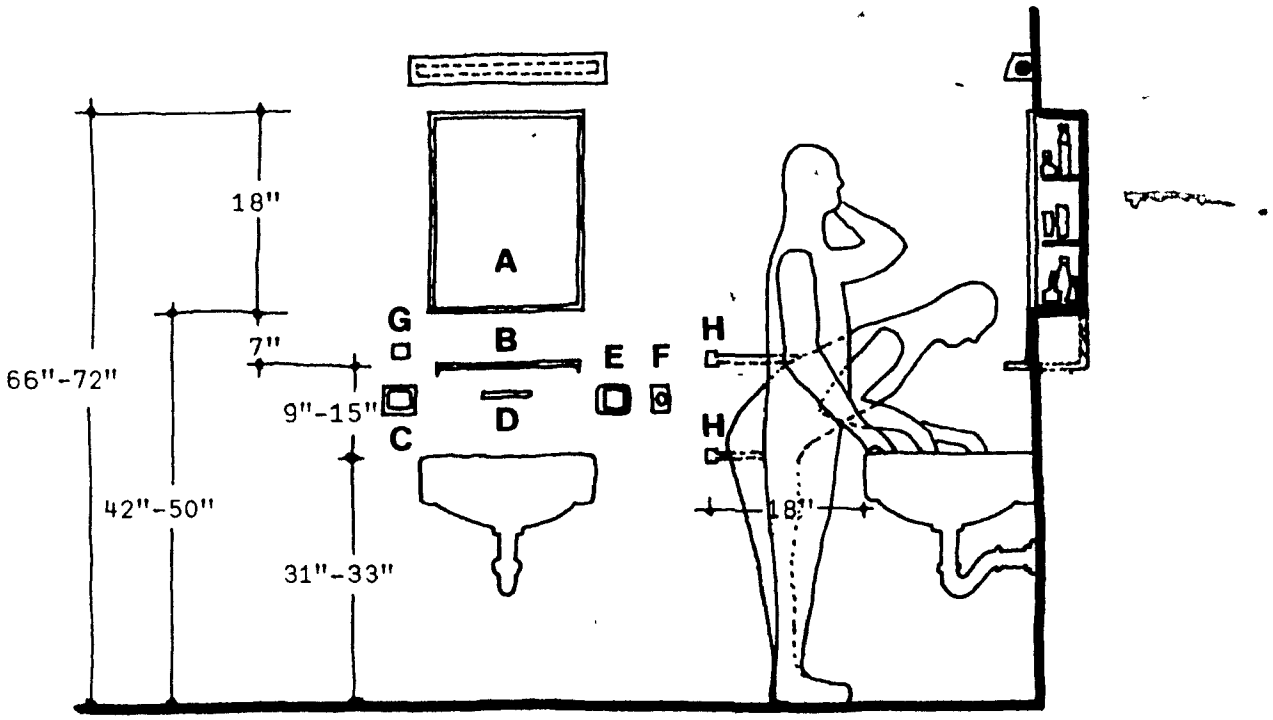



Figure 1-30

Scale: 0 1 2

A. Mirror and medicine cabinet. Size is governed by use of shelf or shelf-topped lavatory.

B. Shelf. Preferably recessed flush with wall. May be part of medicine cabinet.

C. D. and E. Soap, toothbrush, and tumbler holders. May be separate units or combined; flush or projecting type

F. Receptacle for electric razor and hair dryer. Should be above and to the right of lavatory.

G. Razor blade disposal slot.

H. Towel bars. May be at level of shelf or lavatory top. In congested space provide upper bar for face cloths, lower bar for towels

Dimension at Shower Area: (Figure 1-31 )

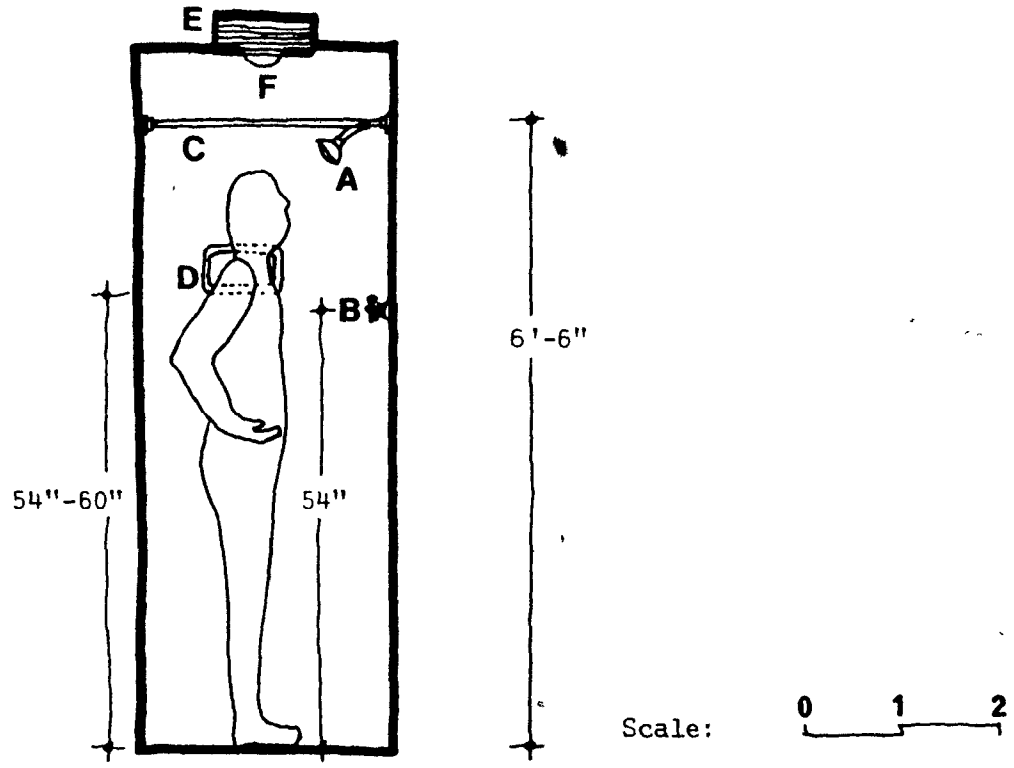



Figure 1-31

A. Shower head.

B. Shower valves or mixing valves.

C. Shower curtain rod. Optional, glass shower enclosure door; place hinges on edge opposite shower control valves.

D. Combination soap and sponge holder and grab bar. Use draining - lip type. May be on rear wall or on side wall opposite shower head.

E. Shower ventilator. Desirable to remove steam; may function as vent for bathroom.

F. Shower stall light. Optional, must be vapour proof fixture.

The diagram below indicated the minimum clearances that should be provided for use of the bathroom fixtures. (Figure 1-32)

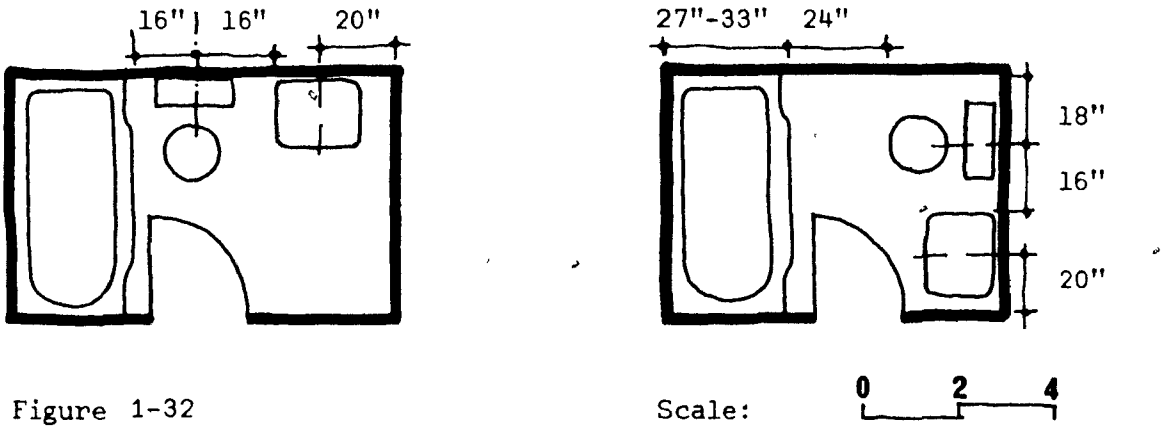



Figure 1-32

Scale:

References for Section 1.1

1. Time Saver Standard, Planning Considerations, Bathrooms, pp. 995 - 1006.

2. Time Saver Standard, Hotels: Guest Room Furniture, p. 1047.

3. Time Saver Standard, Furniture: Bedroom, pp. 963 - 966.

4. Graphic Standards, Area Requirements for Planning: Bedroom, pp. 702 - 709.

5. Graphic Standards, Bathroom, pp. 471 - 475.

6. Graphic Standards, Bedroom Furniture, pp. 417-419.

7. Architects' Journal, Information Sheet 1211 Bathroom Planning, 1·(74).

8. Architects' Journal, 1212 Bathroom Planning 2 (Ba 4 : (74))

9. Architects' Journal, 1197 - 1201 ( (72)) deal with materials for furnishing and furniture.

10. Hotels, Restaurants, Bars, Information sheet on Bedrooms, and Bathrooms, pp. 114 - 115.

## 1.2 Room Services

Services to be provided are dependent upon the requirements and particular needs of the client. Some services which are commonly provided are:

- Morning Tea
- Meals
- Valeting and Shoe Cleaning
- Communication Services: Microphone, Telecommunication systems
- Mail and Message Services
- Morning Call Service
- General Information Supply

## 1.3 Room Environments

The room environment includes such things as acoustics, heating, ventilation, air conditioning, plumbing and general finishing. Carefully considered and designed through the guest room area, an atmosphere can be created that will amuse and comfort the guest. Consideration should be given, however, to the easy maintenance of any of the above. A more detailed discussion of room environments follows in sections 2.7, 2.8 and 3.5.

## CHAPTER II PLANNING OF THE HOTEL ROOM

Guest rooms are the principal reason for having a hotel; they are the source of most of the hotel's income and they set the standard of quality.[1] The rest of the areas in the hotel serve mainly to attract guests so that there will be more hotel rooms rented. The hotel room itself should fulfill the guest's expectations and be as impressive as possible.[2]

The layout should provide for the guest's needs and convenience which are similar in any location. In general, the guest room is planned to provide space for:

sitting - along the outside wall

sleeping - dressing - packing - between the sitting area and bathroom wall

bathroom - entry - foyer - closet - adjacent to corridor

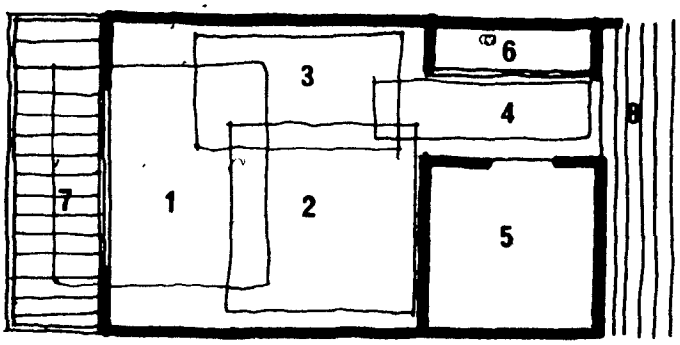
Sometimes a balcony is added to give the increased dimension of outdoor sitting.

These various areas normally overlap to some extent and serve a double purpose so that there will be an over-all saving and flexibility of space as well as adding a sense of spaciousness to the room without waste of floor area.[3] (Fig. 2-1)

[1] Time Saver Standards - A Handbook of Architectural Design, McGraw-Hill Inc. 4th Ed., (New York, 1966), p. 1045.

[2] Hattrell, W. S. and Partners, Hotels Restuarants Bars, (London, 1962), p. 21.

[3] Progressive Architecture, 'Motels', (New York, 1963), p. 200.




1. Sitting Area
2. Sleeping Area
3. Dressing & Packing Area
4. Entry Foyer
5. Bathroom
6. Closet
7. Balcony
8. Corridor

Figure 2-1

## 2.1 Furniture Arrangements

Amongst the bedroom furniture, the largest single piece is the bed; the largest group is the bathroom. Consequently, the arrangements of beds and the position of the bathroom in relation to the sleeping and sitting area are usually the two most important factors in shaping the plan, since they control its minimum dimension.

### 2.1.1 Arrangements of Beds

The first two alternatives are:

(i) Bed(s) is (are) located along the partition walls. (Fig.2-2)

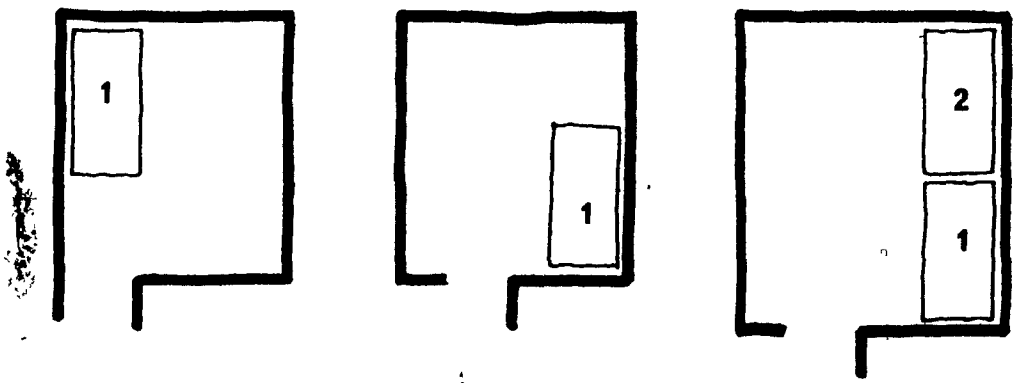



Figure 2-2

Note: 1. Could be a single, or double, or 3/4 bed.

2. Could be a couch or a single or 3/4 bed.

(ii) Bed(s) is (are) located so that head is adjacent to of the partition walls. (Figure 2-3 )

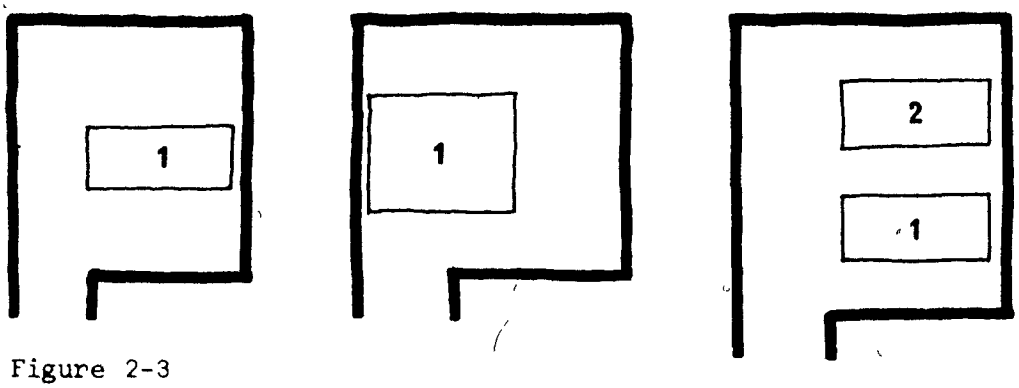



Figure 2-3

For twin bedded rooms, solutions (i) and (ii) can be combined as shown in Figure 2-4.

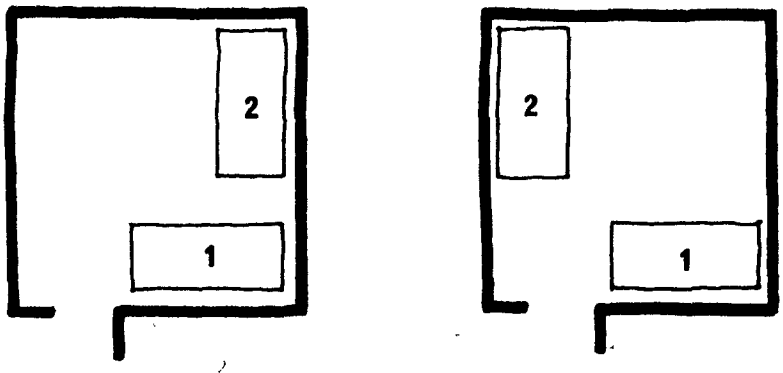



Figure 2-4

Both solutions (i) and (ii) have their merits. Solution (i) is likely to require a larger area in twin bedded rooms and (ii) probably requires more space in single rooms, depending upon the locations of the rest of the furniture and the size of the bathroom unit.

2.1.2 Positions of Bathrooms

Bathrooms are essential for bedrooms in a hotel. The shape and, to some extent the size of a bedroom will be governed by the positioning of the bathroom.[4] "It is somewhat inflexible in shape if it is to be economical in plumbing. In cost per square foot the bathroom represents by far the most expensive part of the guest room."[5]

Generally there are four solutions:

(i) Bathroom is located on the exterior wall. (Figure 2-5 )

(ii) Bathroom is located in the room between sitting and dressing areas. (Figure 2-6 )

(iii) Bathroom is located adjacent to the corridor. (Figure 2-7 )

(iv) Similar to (iii), but the bathroom is on the other side of the room. (Figure 2-8 ).

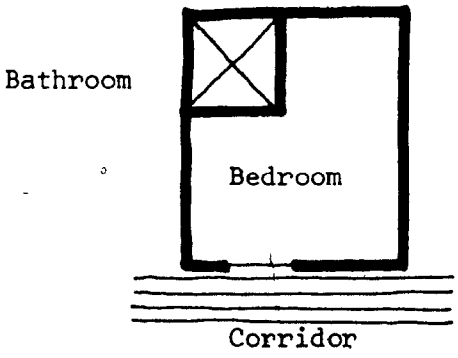



Figure 2-5

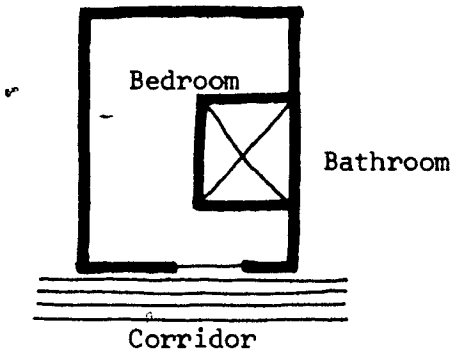



Figure 2-6

[4] Architect's Journal, 'Hotels', June, 1970, p. 1587.

[5] Progressive Architecture, 'Motels', (New York, 1963), p. 199.

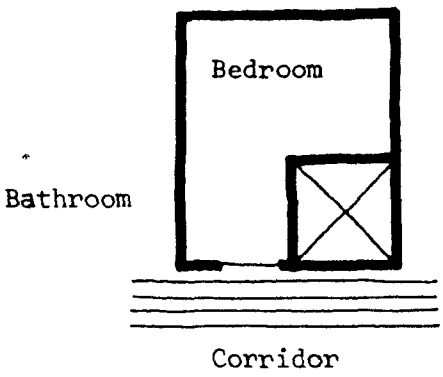



Figure 2-7

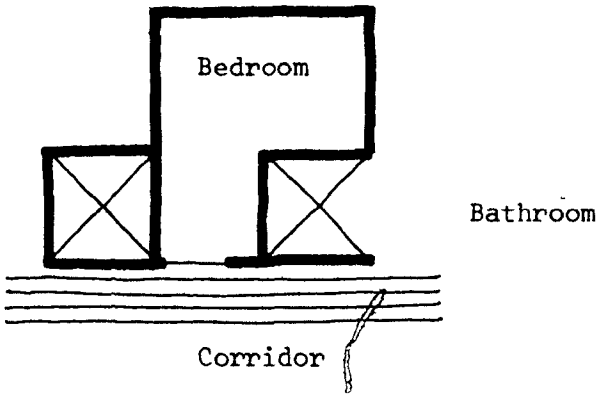



Figure 2-8

Both solutions (i) and (ii) are likely to require more space either the width or in depth of the room. Solutions (iii) and (iv) are most frequently adopted due to the economical room width and full exterior view.

For more detailed discussion, see Section 2.5.

Fox maximum efficiency, the arrangement of the furniture should be such that it combines the real dimensions with circulation space. Figure 2-9 shows a typical arrangement which illustrates this pri ciple.

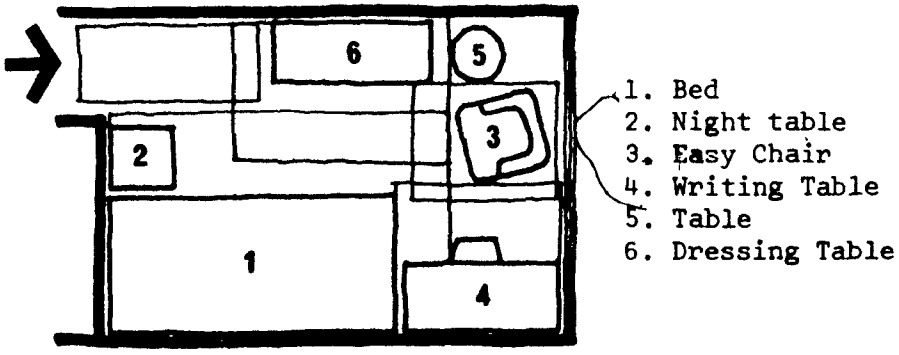
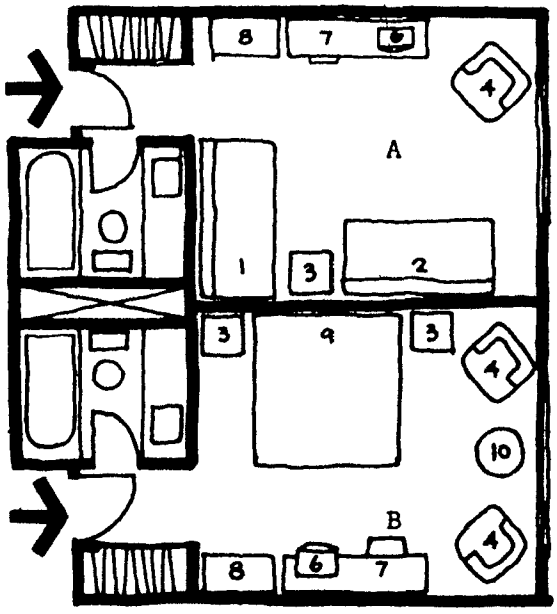



Figure 2-9

2.1.3 Dimensions

The size and shape of the hotel room are strongly influenced by the furniture and equipment which it must contain. In addition to the basic dimensions as mentioned in Chapter I, extra space must be allowed for circulation for furniture use. For example, threre must be space to move certain pieces of furniture for cleaning purposes. Also, most single pieces of furniture are not complete in themselves; they form one element in a group. Thus, the bed must have its night table; the armchair its reading lamp, the writing table is chair, and so on. (Figure 2-10).




1. Single Bed
2. Sofa Bed
3. Night Table
4. Easy Chair
5. Small Table
6. Television
7. Dressing Table
8. Luggage Rack
9. Double Bed
10. Table

A. Studio
B. Double Room

Figure 2-10

0 5 10

The exact dimensions of a hotel room still cannot be determined unless the room has been planned in detail with all furniture, because a few inches added to one dimension or deducted from another may make all the difference to the proper placing of the bed and other furniture. Also, the use of standard items of furniture need not produce stereotyped rooms. (Figure 2-11)

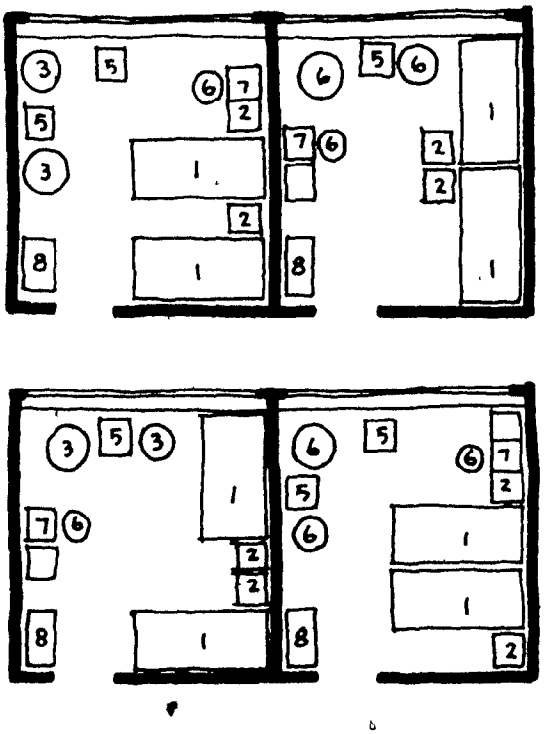
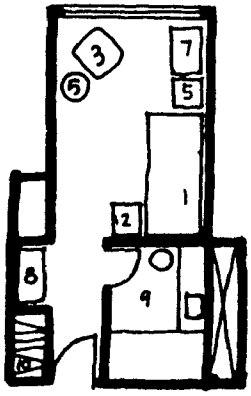


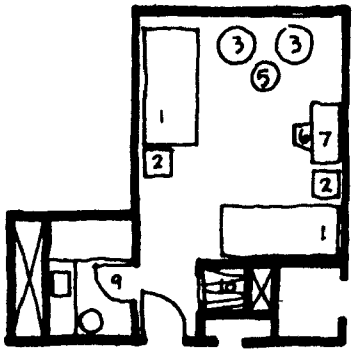
Figure 2-11

Different layouts can be used to produce different effects. (Figure 2-12) By careful planning, the size of the rooms can be reduced and the cost of the building, furnishing and letting will be reduced too.[6] This has been done by those city hotels or chain hotels in which reasonably minimum room units are designed for the sake of economy and which are the



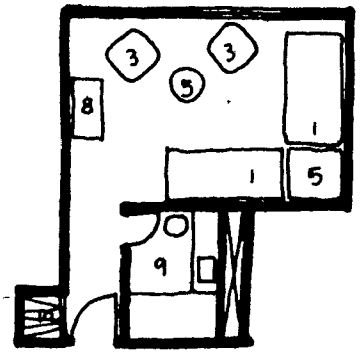
Area: 167 sq.ft.

Figure 2-12A



Area: 220 sq.ft.

Figure 2-12B



Area: 235 sq.ft.

Figure 2-12C

Area: 240 sq.ft.

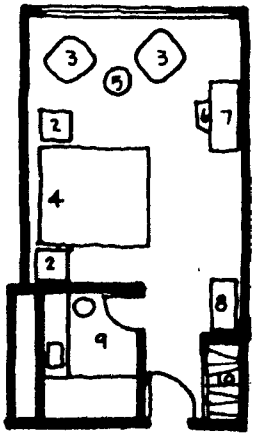
Figure 2-12D

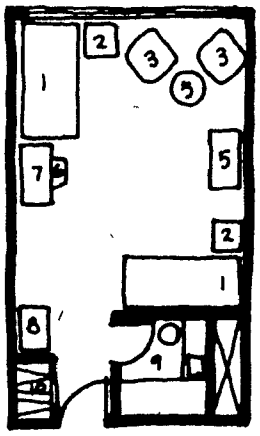
Area: 268 sq.ft.

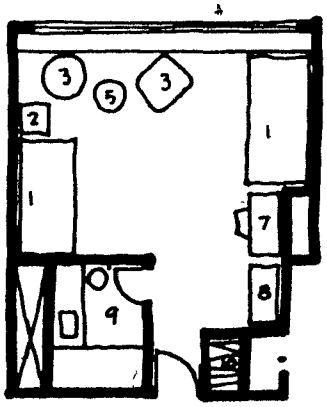
Figure 2-12E

Area: 282 sq.ft.

Figure 2-12F



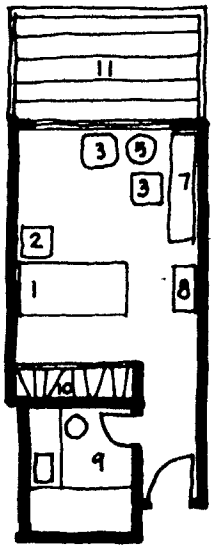




main concern of this study. (Figure 2-12A to Figure 2-12J )

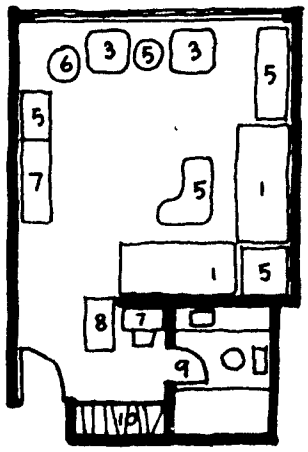
Scale: 0 5 10

[6] Hattrell, W. S. & Partners, Hotels, Restaurants, Bars, (London, 1962), p. 22.



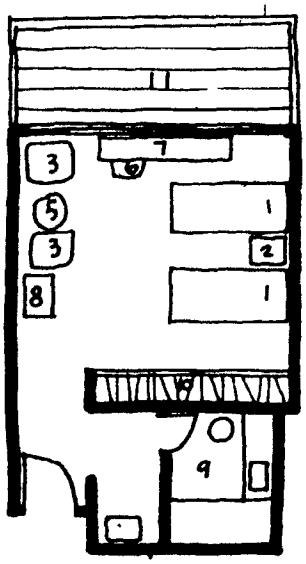
Area: 290 sq. ft.

Figure 2-12G



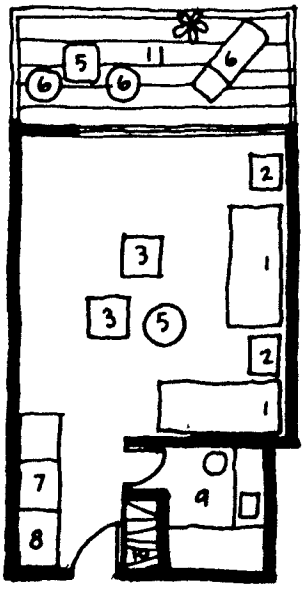
Area: 375 sq. ft.

Figure 2-12H



Area: 450 sq. ft.

Figure 2-12I



Area: 472 sq. ft.

Figure 2-12J

Legend:

1. Single Bed
2. Night Table
3. Easy chair
4. Double Bed
5. Table
6. Chair
7. Dressing/Writing Table
8. Luggage Rack
9. Bathroom
10. Closet
11. Balcony

Scale: 0 5 10

2.2 Room Types

"One of the first things which the architect will want to know when designing a hotel is the type of bedroom which is required. Once this has been decided the architect's task is to design the rooms to give the user the greatest possible flexibility in use."[7] Guest rooms are best classified by the number and type of beds provided. For example, a single room has one single bed, a twin room has two single beds, a double room has one double bed, a studio has a divan or a sofabed, and a double-double room has two double beds.

The different room types are as follows:

Single: A room with one single bed to be occupied by one person. (Fig. 2-13)

Double: A room with one large double bed suitable for two persons. (Fig. 2-14)

Twin: A room with two single beds or three quarter beds, suitable for two persons. (Fig. 2-15)

Double-Double: A room with two double beds. Suitable for two, three or four persons. (Fig. 2-16)

Studio: A room that is set up with one or two couches that convert to beds. (Fig. 2-17)

Combination: A room with one single bed or double bed and one couch that can be used as a bed. (Fig. 2-18)

Suite: A parlour connected to one or more bedrooms. (Fig. 2-19)

Examples are on the following pages.

[7] Hattrell, W. S. & Partners, Hotels Restaurants Bars, (London, 1962), p. 21.

Single: This type of room will be used by one person only.

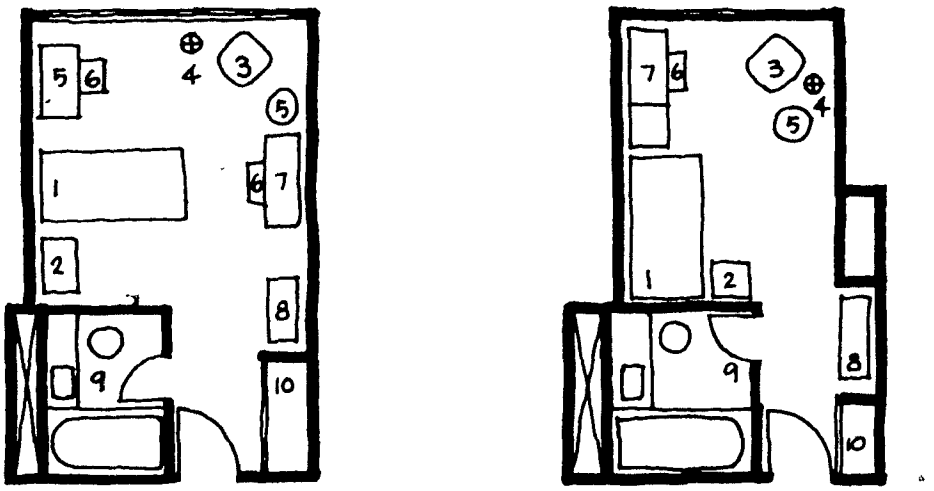



Fig. 2-13 SINGLE

Double: This type of room will be used by one person or perhaps a couple.

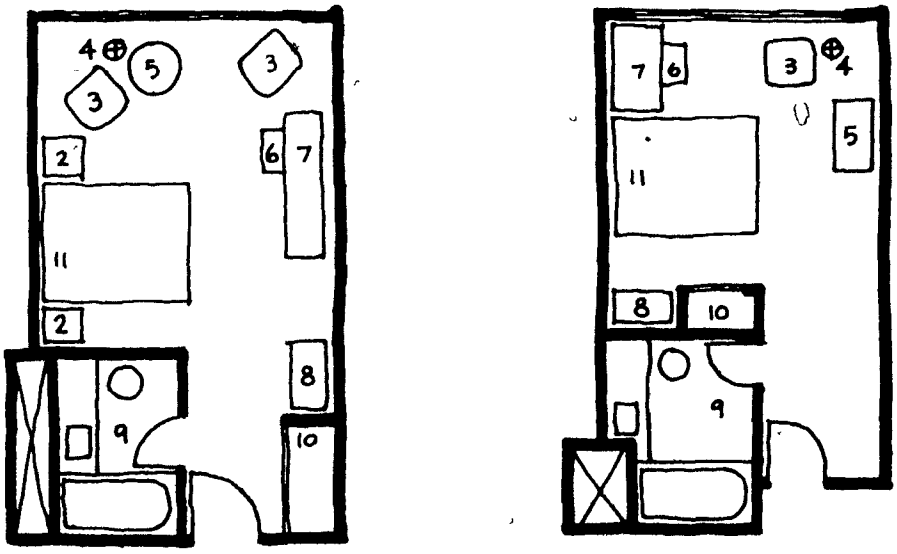



Fig. 2-14 DOUBLE

Scale: 0 5 10

Twin: This type of room can be used by one or two people.

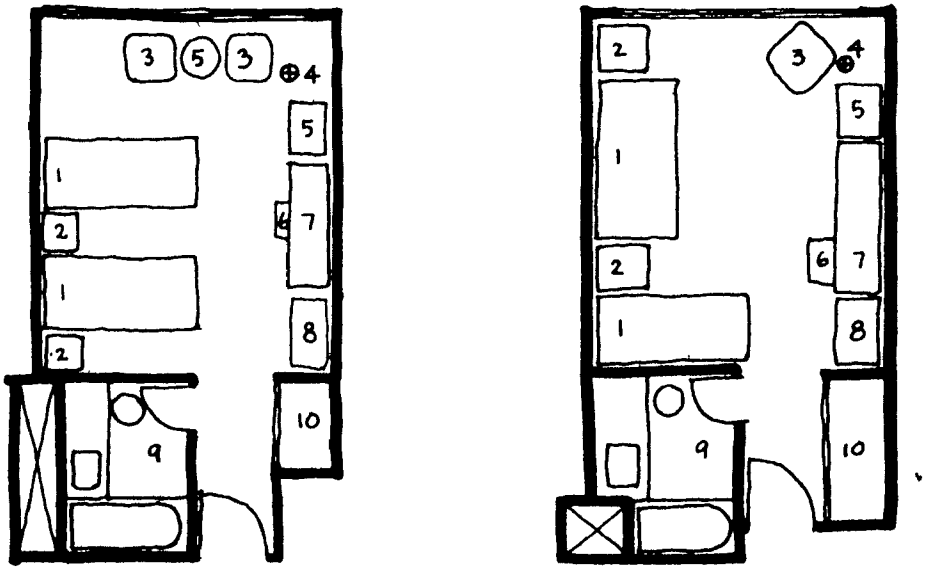



Fig. 2-15 TWIN

Double-Double: The function of this type of room is similar to the twin; in that it provides two double beds instead of two single ones, and can therefore accommodate up to 4 people.

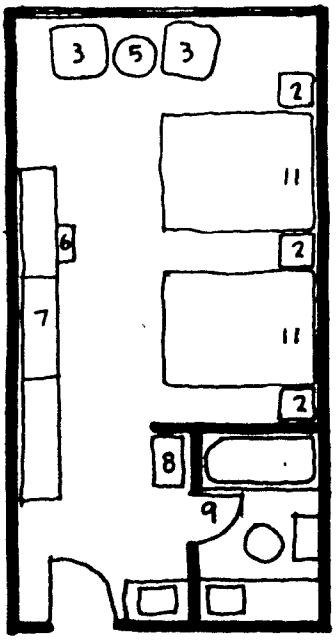



Fig. 2-16 DOUBLE-DOUBLE

Legend:
1. Single Bed
2. Night Table
3. Easy Chair
4. Lamp Stand
5. Table
6. Chair
7. Dressing/Writing Table
8. Luggage Rack
9. Bathroom
10. Closet
11. Double Bed
12. Sofabed or Couch

Scale: 0 5 10

Studio: This type of room will be used as a sitting room for most of the day. It would therefore be appropriate to provide some way of converting the bed(s) during the daytime to give the room the appearance of a sitting room.

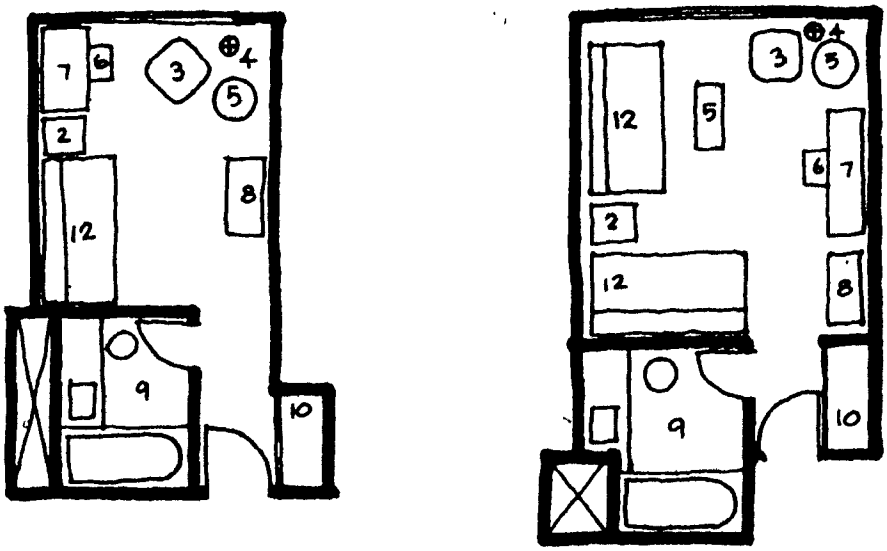



Figure 2-17 STUDIO

Combination: Combination rooms are single rooms containing, in addition to a bed, a divan or sofabed, when not made up as a bed, can be used as a couch or sofa. This type of room is very popular because it can be let as either a single, double, or twin room.

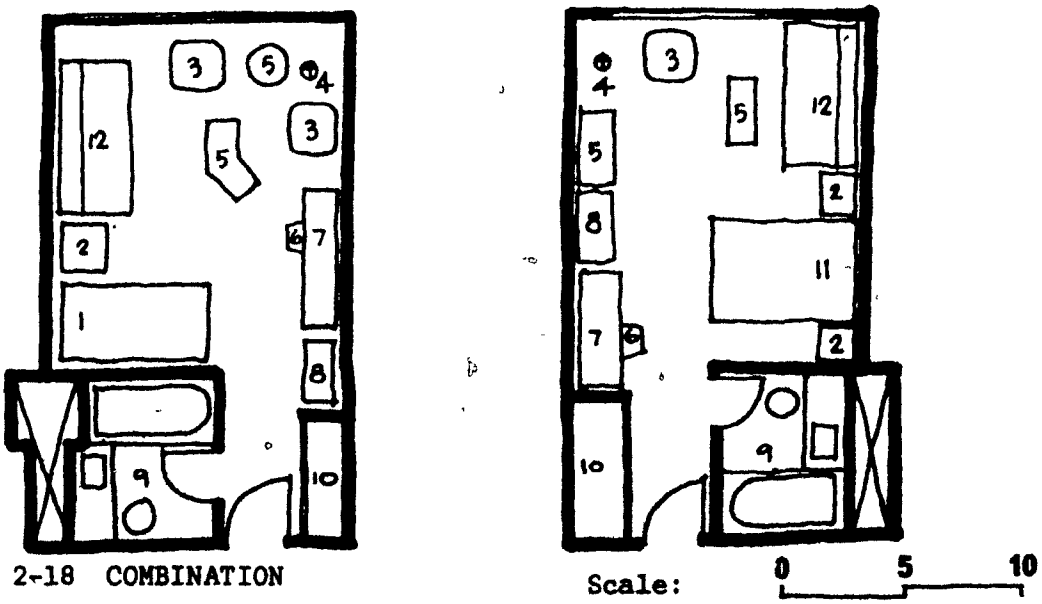



Figure 2-18 COMBINATION

Suite:

Flexibility in letting of bedrooms is increased by providing inter-communicating doors between rooms so that two or more rooms can be let as a suite. The communicating doors must be soundproof with the flexibility of being locked from either side. (Fig. 2-19)

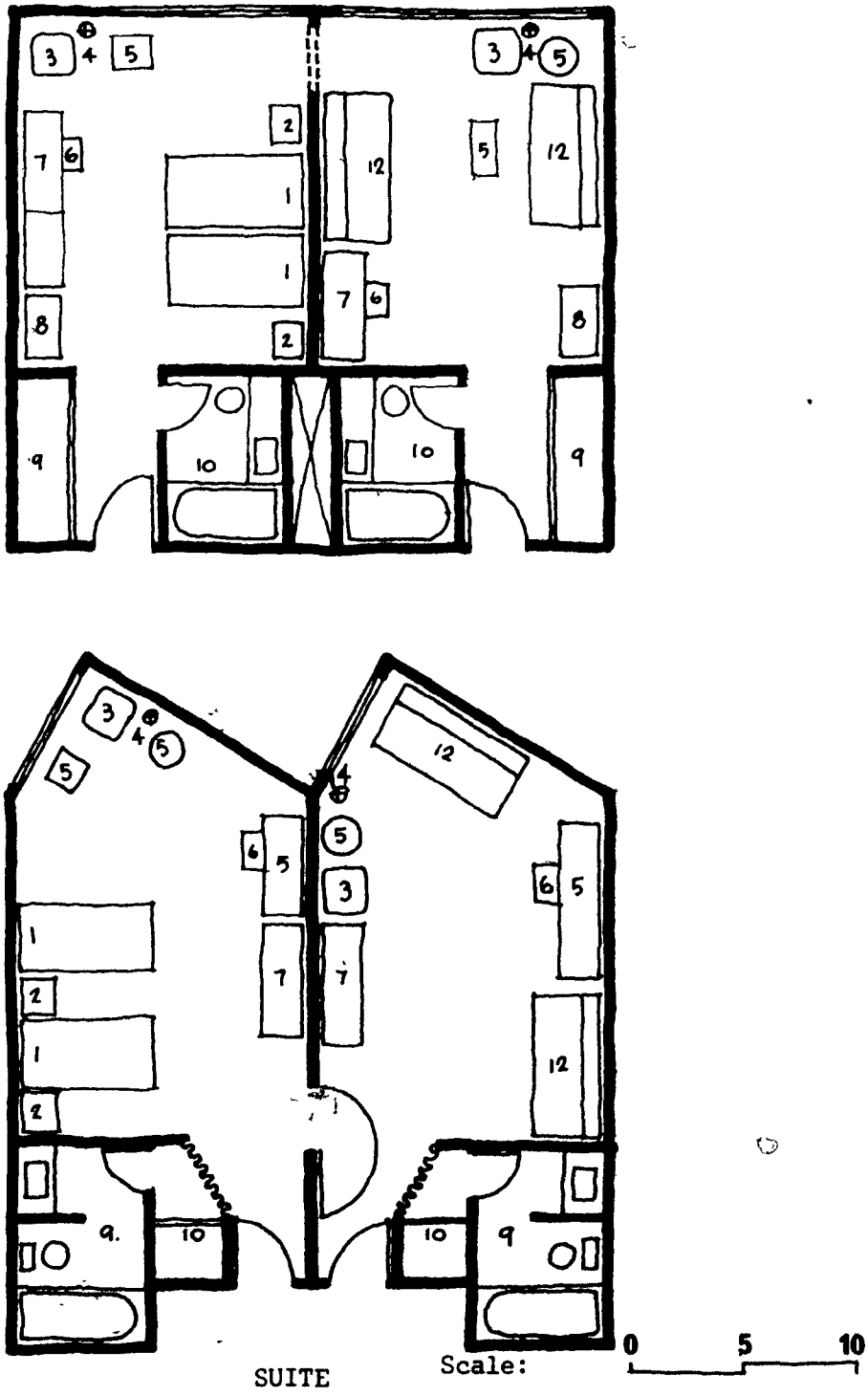
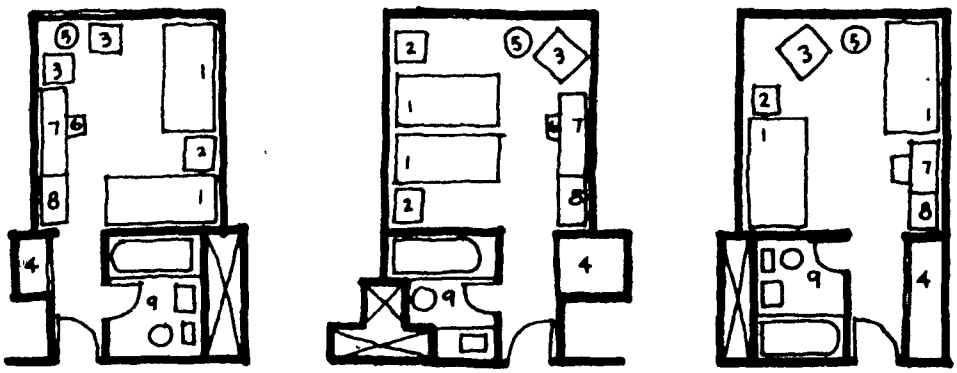



Figure 2-19

Referring to the quality, degrees of luxury, special function, geographic variations and so on, there are many more types or names of hotel rooms that can be added here. However, these seven types are the most common ones. (A more complete listing of room names is provided in Appendix A.)

2.3 Minimum/Average/Luxury Layouts

Relatively compact arrangements are favoured in commercial hotels or certain types of high-rise chain hotels. More spacious rooms with about the same complement of furniture can be found in motels, luxury hotels, resort hotels, apartment hotels and higher priced residential hotels. (Examples, see Fig. 2-20 to Fig. 2-22)



Typical Hotel Room (Minimum)

Fig 2-20

Scale: 0 5 10

Minimum/Average/Luxury Layout

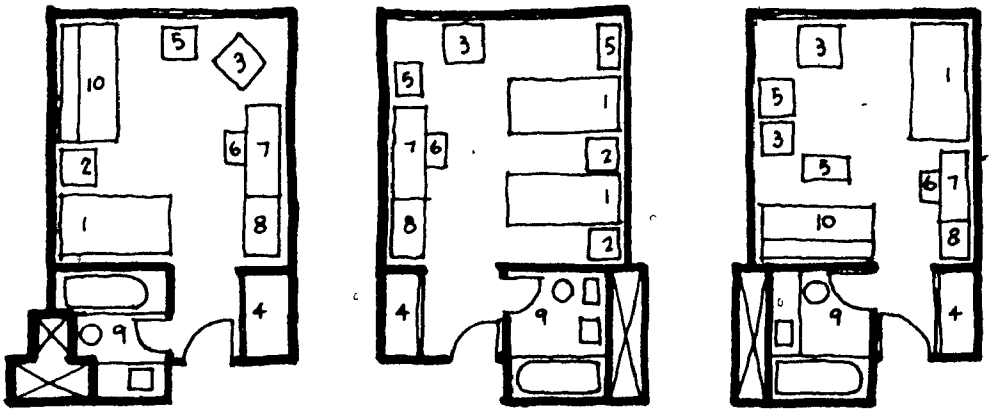


Fig. 2-21

Typical Hotel Room (Average)

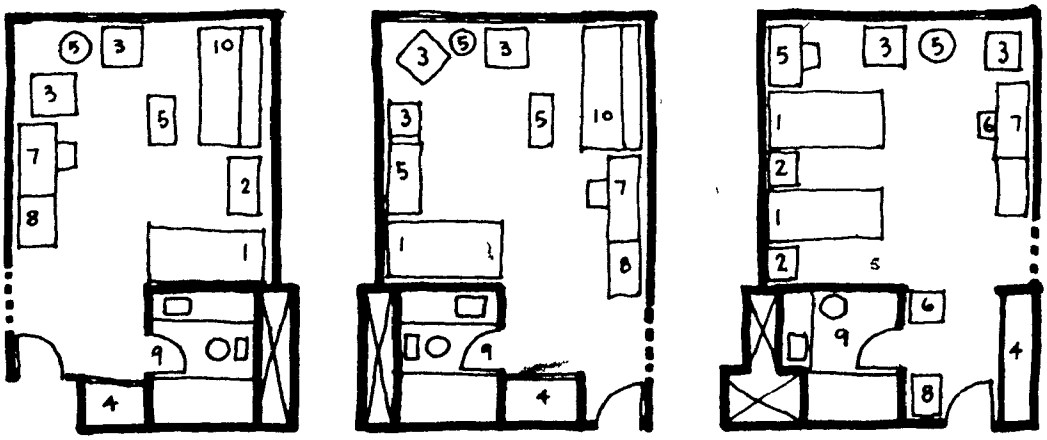


Fig. 2-22

Typical Hotel Room (Luxury)

Legend:
1. Single Bed
2. Night Table
3. Easy Chair
4. Closet
5. Table
6. Chair
7. Dressing/Writing Table
8. Luggage Rack
9. Bathroom
10. Sofa bed or couch

Scale: 0 5 10

## 2.4 Variations on the Basic Layout

Although in the preceding pages room types have been described, this does not mean that these types are identical. Carefully planned layouts achieve a typical room layout that may be used for several room types, without crowding or wasting space. (Examples, see Fig. 2-23A to Fig. 2-23F)

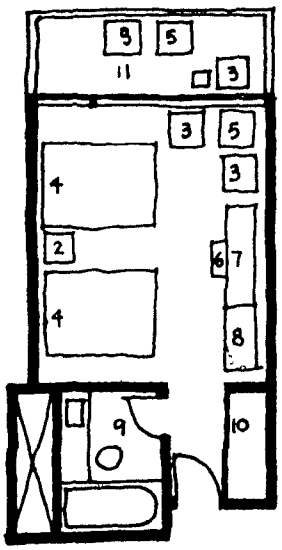



Fig. 2-23A

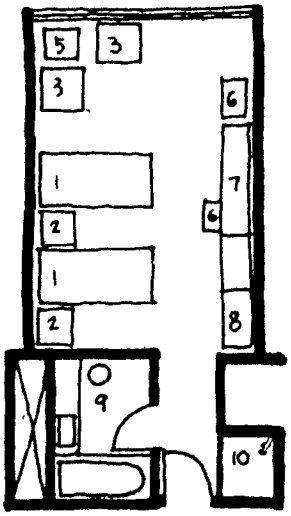



Fig. 2-23B

Legend:
1. Single Bed
2. Night Table
3. Easy Chair
4. Double Bed
5. Table
6. Chair
7. Dressing/Writing Table
8. Luggage Rack
9. Bathroom
10. Closet
11. Balcony
12. Couch-SofaBed
13. Interconnecting door

Scale: 0 5 10

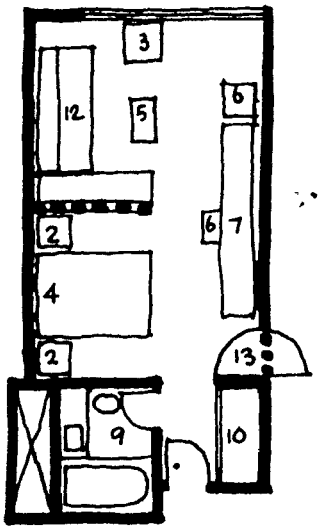



Fig. 2-23C

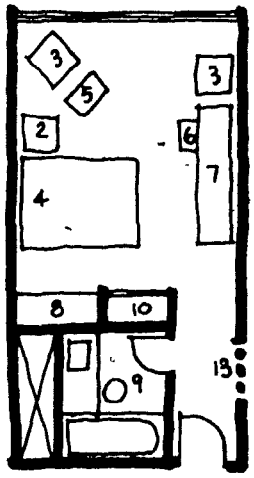



Fig 2-23D

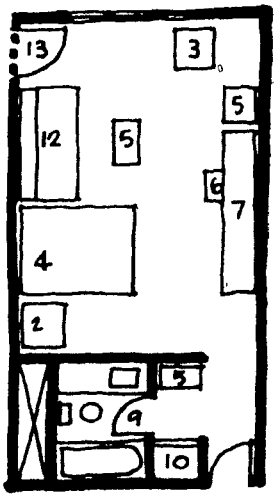



Fig. 2-23E

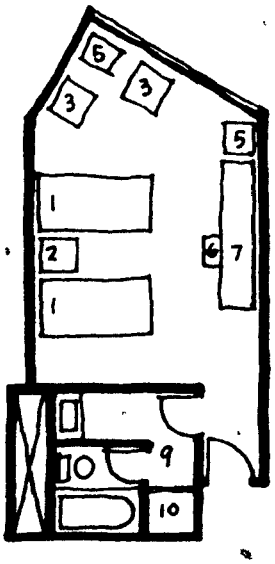



Fig. 2-23F

Scale: 0 5 10

## 2.5 Combination of Rooms

"A key element in economical combinations is the bathroom. The more bathrooms served by a single plumbing stack, the more economical the plan will be."[8] Based on this principle, three arrangements of bathrooms are as follows:

(i) Bathrooms arranged between bedrooms (Fig. 2-24)

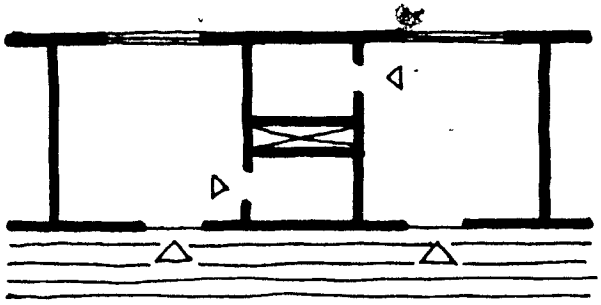


Fig. 2-24

(ii) Bathrooms arranged on exterior walls. (Fig. 2-25)

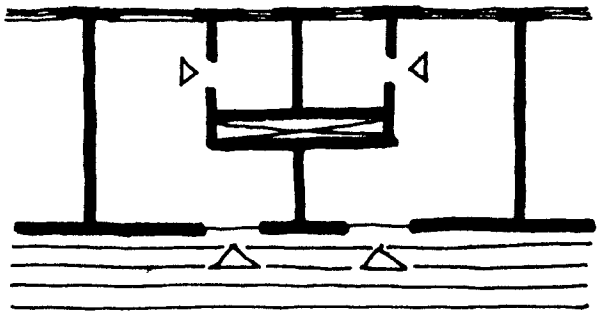


Fig. 2-25

[8] Progressive Architecture, 'Motels', (New York, 1963), p. 232.

(iii) Bathrooms arranged on interior walls. (Fig. 2-26)

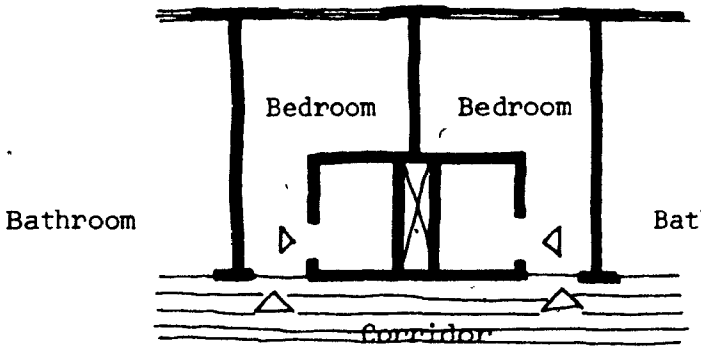



Fig. 2-26

The first arrangement, due to the elongation of the corridor, makes capital expense higher and servicing slower. The second has the advantage of reducing costs because the lobby is omitted and it is economically ventilated. The reduction of privacy is offset by the amount of natural light and the scenic view. The last arrangement is with bathrooms located in pairs adjacent to the corridor. This arrangement necessitates a lobby which can be furnished as a dressing area, thereby reducing the space required in the bedroom area. This arrangement also requires completely artificial ventilation and lighting. However, the well planned common duct can be serviced from the corridor and the width of bedrooms along the outside walls can be kept to a minimum as compared to the first and second arrangements, thus shortening the length of the corridor and exterior wall.[9, 10]

The current survey in Chapter IV shows that this sort of arrangement is adopted by most of the hotels and has become almost typical.

[9] Architects' Journal, 'Hotels', June 24, 1970, p. 1587.

[10] Architects' Journal, 'Principles of Hotel Design', (London, 1970), p. 65.

## 2.6 Corner Rooms

The last two bedrooms on the outside corner of the bedroom block, where there is no interruption of the structural grid, can be combined to a more generous suite. This usually resembled two studio-twin bedrooms, or a parlour and a studio-twin bedroom. With the interconnecting door they may be rented as a two or three room suite, or alternatively as individual rooms. (Fig. 2-27)

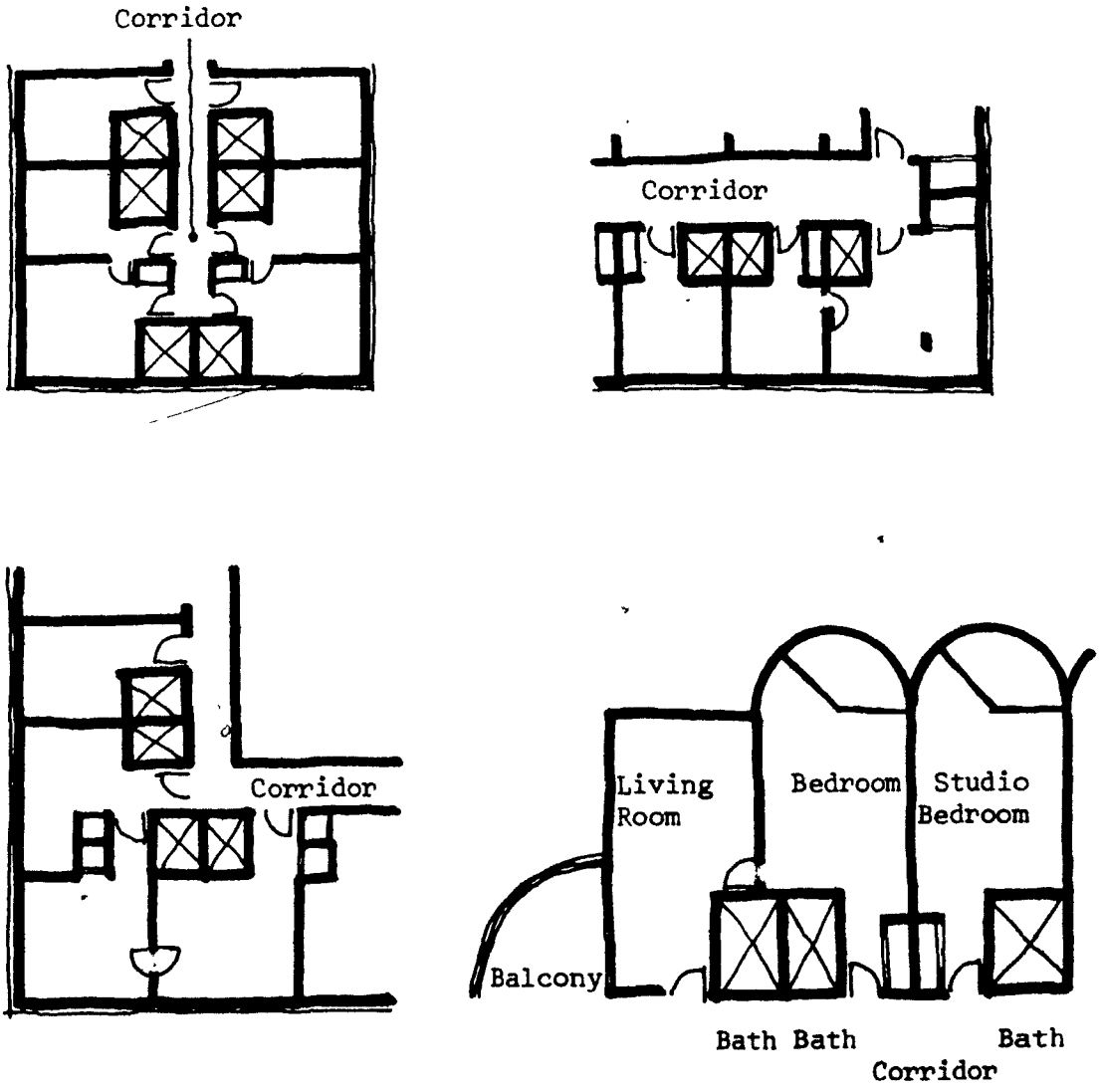



Fig. 2-27

## 2.7 Environmental Control

### 2.7.1 Lighting

In the hotel room that will be used mostly at night one must study lighting requirements and effects with care. Lighting can form an important element in the creation of a pleasing environment. The quantity of light at any given position should be sufficient but the quality is of overriding importance.[10]

Lighting is required in the following areas, to the following degrees:

| | | |
|---|---|---|
| i. | General room illumination: | 10 foot candles |
| ii. | Bed head: | 20 foot candles |
| iii. | Dressing/Writing,Reading area: | 30 foot candles |
| iv. | Bathroom: | 10 foot candles[11] |

"It is essential that one light can be switched on from the bed position, and the following control positions are desirable:

at the door;

at the bedside;

at any special fittings;

It is not necessary to control all lights from all three positions but depends on the room layout."[12]

[10] Architects' Journal, 'Hotels', June 24, 1970, p. 1601.

[11] 'Hotels', Time-Saver Standards - A Handbook of Architectural Design, McGraw-Hill, Inc., 4th Ed., (New York, 1966), p. 906.

[12] Architects' Journal, 'Hotels', June 24, 1970, p. 1602.

A suitable compromise is the control of all lights from the bed position but also from the door. Also, one might consider the main light control in the area of the entrance door with the secondary switch at the bed.[13] In order to achieve a more intimate effect, small dimmer switches can be used to control various intensities of light.

### 2.7.2 Electrical

"There should be at least one socket outlet by each bed, possibly incorporated with the lighting control panel so that guests may use any portable appliances they may bring."[14] One socket outlet is also desirable in each room for cleaning purposes, besides those provided for lamps.[15]

### 2.7.3 Noise Control and Acoustics

Special care must be taken with noise control. The furniture, lighting, and atmosphere can be veritably perfect, but irritating noise can ruin the appreciation of the environment and impressions of the guest.

Noise problems arising from the entry of external noises and penetration of noise produced within the building can usually be minimized by careful planning as in the following ways:

[13] Architects' Journal, 'Hotels', June 24, 1970, p. 1602.
[14] Architects' Journal, 'Hotels', June 24, 1970, p. 1608.
[15] Architects' Journal, 'Hotels', June 24, 1970, p. 1609.

i. Positioning the bedrooms in minimum traffic areas.

ii. Using walls, curtains and other features to provide sound screening.

iii. Careful planning of service ducts.

iv. Providing acoustical isolation for mechanical equipment that produces noise.[16]

The main sources of irritating noise are usually:

A. Impact Noise:

These are noises conveyed by resonance of the structure such as door slamming, foot steps and operation of services. Noise from water pipes and machinery vibration may be conveyed through duct work. This kind of impact can be reduced by providing a layer of resilient material, such as rubber or carpeting to absorb the energy of impact noise between the contacting surfaces.

B. Airborne Noise:

These are noises usually caused by fans, motors, radios, cisterns, conversations, etc. Noises that come from the next room are most annoying to the hotel guest. In addition, he does not wish to hear conversations from the corridor . Airborne noise can be greatly reduced by the following:

i. Double glazing

ii. Thick wall construction

iii. Cavity walls

iv. Patent door sealing systems

v. Isolated linings, suspended ceilings, floating doors,

[16] Architects' Journal, 'Hotels', June 24, 1970, p. 1603.

Care must be taken that room service should avoid work being performed while guests are still asleep.

2.8. Room Finishes.

2.8.1.Surface Finishes

Surfaces must be reasonably scratch-proof and cigarette-proof. Table tops should be resistant to splits or general abuse, ink, and liquids - both hot and cold. Easy maintenance is a prime consideration. Some old curing lacquers approach these conditions. Plate glass is effective but is costly and can be chipped. Melamine plastic laminates are suitable but do not always satisfy aesthetic considerations. As an alternative there are laminates available using real wood veneers.

Upholstery materials must be carefully considered as to whether they are too rough or cold, not comfortable in hot weather and so on. They must be easily cleaned and be very durable.

2.8.2. Wall Finishes

Wall finishes are to be top grade paint or vinyl fabric material. A great variety of colour schemes is no longer necessary. Two or three colours to a scheme are more economical to maintain than eight to twelve.[17] The bathroom must be finished in waterproof materials. Walls that are likely to be splashed should be faced with some impervious material.

[17] Architectural Record, 'Motels, Hotels, Restaurants and Bars', 2nd ed., F.W. Dodge Corporation, (New York, 1960), p. 132.

2.8.3 Flooring

Floor covering should be wall to wall carpet. This gives a feeling of richness and quality to the room while providing considerable acoustic value.

In the bathroom, the floor should be sealed. The floor covering must be of waterproof materials and very durable yet pleasing to the touch. Some hotels are installing radiant heating in ceramic tile bathroom floors to provide a warm feeling to a strong, durable and aesthetically pleasing floor.

2.8.4 Ceiling

Ceiling finishes should provide reasonably satisfactory sound insulation for both airborne and impact noise. The ceiling height in the entrance foyer and bathroom area should be 6'-10" to 7'-4", and in the sitting and sleeping area can be 8'-0" to 9'-0".[18]

2.8.5 Doors

Doors should be well built flush doors, completely sound-proofed. They are usually 6'-8" to 7'-0" high. Width varies from 2'-8" to 2'-10" for bedroom entry and interconnecting doors; 2'-2" to 2'-6" for bathrooms.[19]

[18] Architectural Forum, 'Two Kinds of Hilton Hotels', April 1956, p. 136.

[19] Time Saver Standards - A Handbook of Architectual Design, McGraw-Hill, Inc., 4th ed., (New York, 1966), p. 1954.

2.8.6 Window

The window opening should allow a maximum amount of light and air in each room. There should be well built flush windows, weather and sound-proofed. The sill height should be around 2'-8". This height is often dictated by the air-conditioning unit or radiator convectors enclosures.

Design of furniture, choice of furnishings, lighting, acoustic treatment and finishes are all vital elements in creating an atmosphere which is domestic and comfortable while at the same time giving the impression of a little 'larger than life'.

In the long run, it is the comfort and quietness, the efficiency of the room service and how much the guest feels at home which will "make or mar" the reputation of the hotel. The bedroom often gives the impression that the guest will hold for the entire hotel.[20] For further study, the development of relationships between hotel rooms and typical hotel floors are elaborated in the following chapter.

[20] Architects' Journal, 'Hotels', June 24, 1970, p. 1587.

# III

# THE HOTEL FLOOR PLANNING

The success of the hotel is based on the satisfactory and economical layout of the hotel room floors. The basic element of bedroom floor layout is the bedroom unit, the floor is consisted of bedroom units.

This chapter deals with some elements that will affect the planning of the floor layout of the hotel bedroom floors where the aim is to obtain a maximum number of rooms per floor, having due regard to the site condition, services, business management, orientation and economic considerations.

## 3.1 Room Grouping

In the early stages of planning the proportion of single and double rooms should be determined. This proportion very often varies with the type of hotel. Vacation hotels, for example, will have a high percentage of double rooms, but in a city hotel designed primarily for business men, there will be a higher percentage of the letting of single rooms.[1]

Generally, it is advantageous to the hotelier to have rooms of standard size fitted with a bed as a single room which, when necessary, can be furnished with twin beds to serve as a twin-bedded room. This will increase the flexibility of room letting. Also due to the high degree of repetition, hotels are perfect for the attempt to industrialize or systematize construction of hotel

[1]Hattrell, W.S. and Partners, Hotels, Restaurants, Bars,(London, 1962), p. 21.

rooms. This solution appears very common on the contemporary hotel scene around the world, a trend made evident in the international survey included in Chapter IV.

### 3.1.1 Layouts

Room layouts are composed of bedroom units divided by separating walls and interspaced with ducts located between bathrooms. Hotel rooms can be on one side of the corridor (Fig. 3-1) or on both (Fig. 3-2). The former allows natural daylight to come into the corridor and a chance to enjoy a view, which makes it much more pleasant. It also has the advantage of a short duct connecting internal bathrooms with the external face of the building thereby reducing the cost of mechanical ventilation. However, from the point of view of overall costs, cost of engineering services and ease of maintenance by the staff, the latter arrangement is adopted commonly and is considerably the most economical layout.[2]

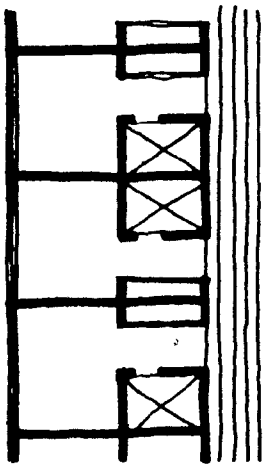


Fig. 3-1

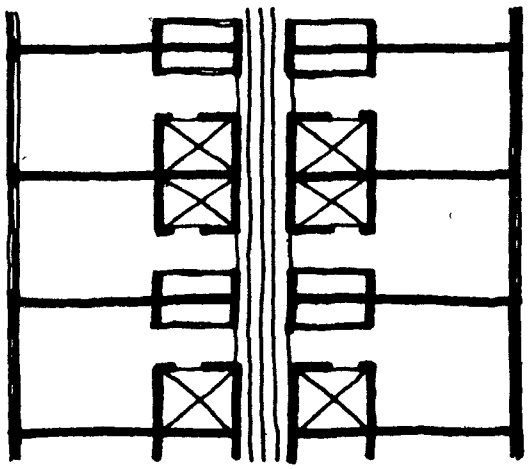


Fig. 3-2

[2] Architects' Journal, 'Hotels', June 24, 1970, p. 1575.

3.1.2 Shapes

There are several kinds of shapes of bedroom layouts; i.e. rectangular, quadrangular, Y-shaped, circular or square. The use depends upon the size and shape of the site and other related design factors. Initially, whatever shape is chosen, the most economical form would appear to be a central corridor with bedrooms on each side.

There is no fixed regulation governing length of corridors. The distance allowed between a bedroom and the nearest staircase or exit varies according to the location of hotel, its overall design, circulation pattern, fire regulations and so on.[3] The width of corridors should not be less than 6'-0". Corridors may be treated to avoid monotony by recessing the room lobbies and by lighting effects; in this case the width of the corridor minimum width can be 5'-0".

Various floor layouts employing this central corridor system are shown in Fig. 3-3 to Fig. 3-8, ranging from a simple linear arrangement, with variations, to square and circular courtyard plans.[4]

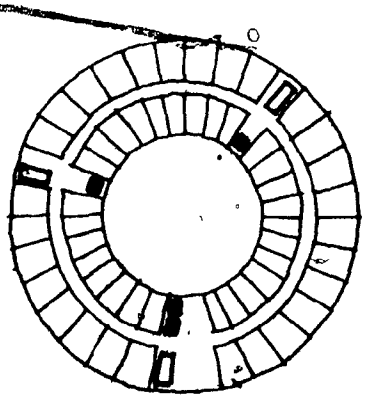


Fig. 3-3
Circular-Shape Arrangement

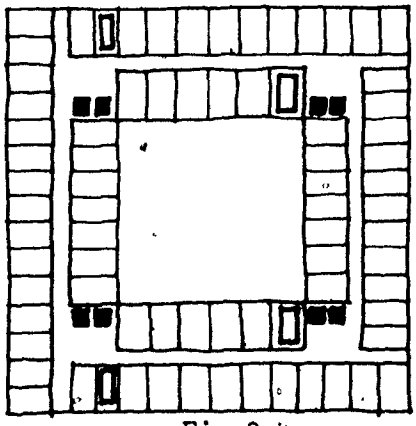


Fig. 3-4
Square-Shape Arrangement

[3] Architects' Journal, 'Hotels', June 24, 1970, p. 1574.

[4] Architects' Journal, 'Hotels', June 24, 1970, p. 1591.

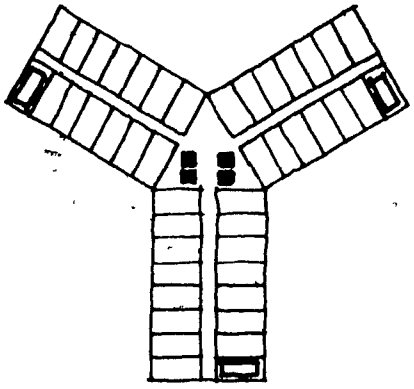


Fig. 3-5
Y-Shape Arrangement

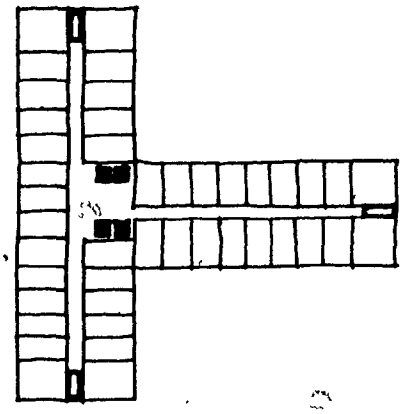


Fig. 3-6
T-Shape Arrangement

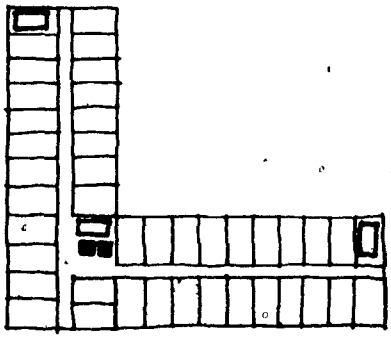


Fig. 3-7
L-Shape Arrangement

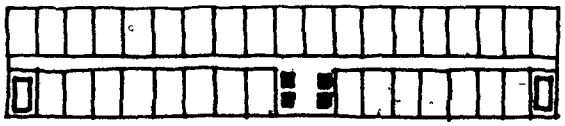


Fig. 3-8
Rectangular-Shape Arrangement (Linear Arrangement)

For examples, See Section 3.6

However, in a few cases, if the width of the block is restricted or if it is intended to confine the bedrooms to one frontage - to enjoy a view - a single row of bedrooms may be used with a corridor along one side. (Fig. 3-9).

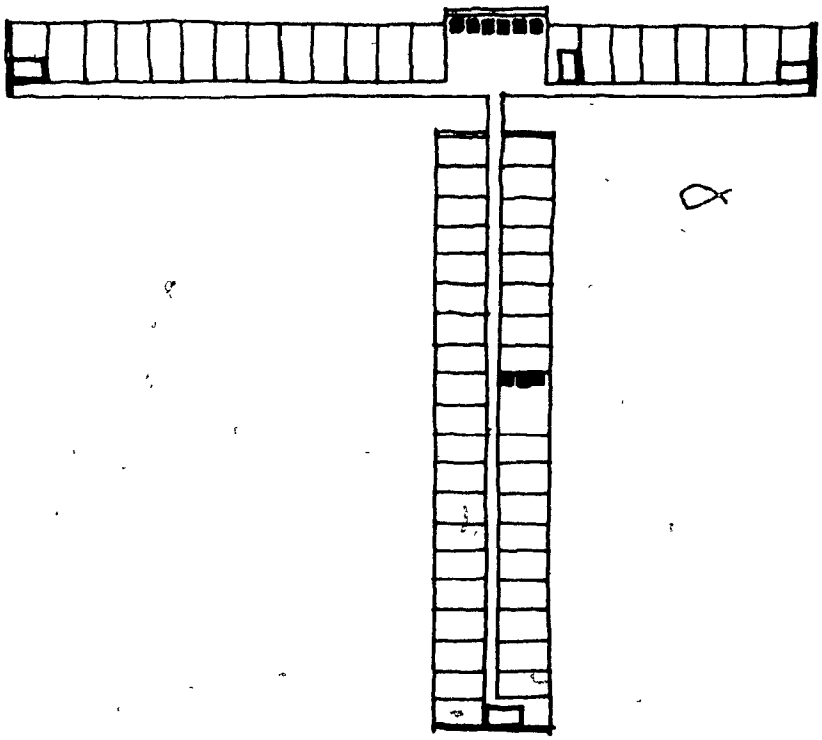


Fig. 3-9

3.2. Number of Rooms Per Floor

Owing to site conditions and other factors, it is sometimes very difficult to control the optimum number of bedrooms per floor, but this number should be related to the service maid's capacity - the chambermaid "module".

The degree of luxury and the standard of service may also determine how many rooms are to be serviced by one maid. One service maid can cope with about six bedrooms in luxury hotels and up to 16 or more in lower grade hotels.[5] (Fig. 3-10).

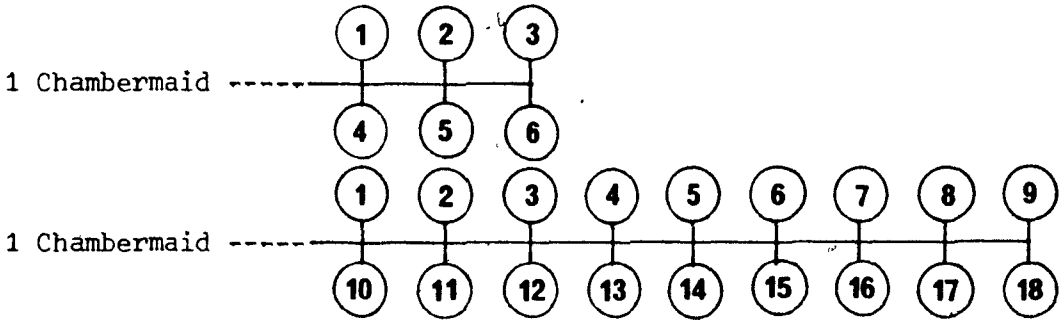



Fig. 3-10

Also, in some places where labour is cheaper, the service maid may serve eight or nine rooms; but where labour is comparatively expensive, as in America, the number of rooms may be sixteen. These in turn will decide the number of modules and therefore the number of bedrooms per floor. For example, in the American vertical block the ideal number of bedroom units per floor will be sixteen or thirty-two and so on. This way of designing for multiples of the chambermaid's capacity per floor appears to give a good workable layout while will save extra staff expenditure. Similar considerations also apply to room service.

[5] Architects' Journal, 'Hotels', June 24, 1970, p. 1590.

The shape of the bedroom block may, to some extent, be dictated by the shape and size of the site, but the chambermaid "module" is still applicable. Total number of rooms per floor is a multiple of the number of bedrooms served by one chambermaid.

## 3.3 Structural Grid

Structurally, for high rise hotels, room wings are generally of post and beam construction. The standards of acoustics, construction and efficient operation are rising. It is therefore most important to design easily renewable fixed services with sufficient service spaces, ducts and so on, for future requirements.

Bedroom floor plans can usually be suited so simple and economical structural framing layout (Fig. 3-11), as discussed in the following paragraphs:

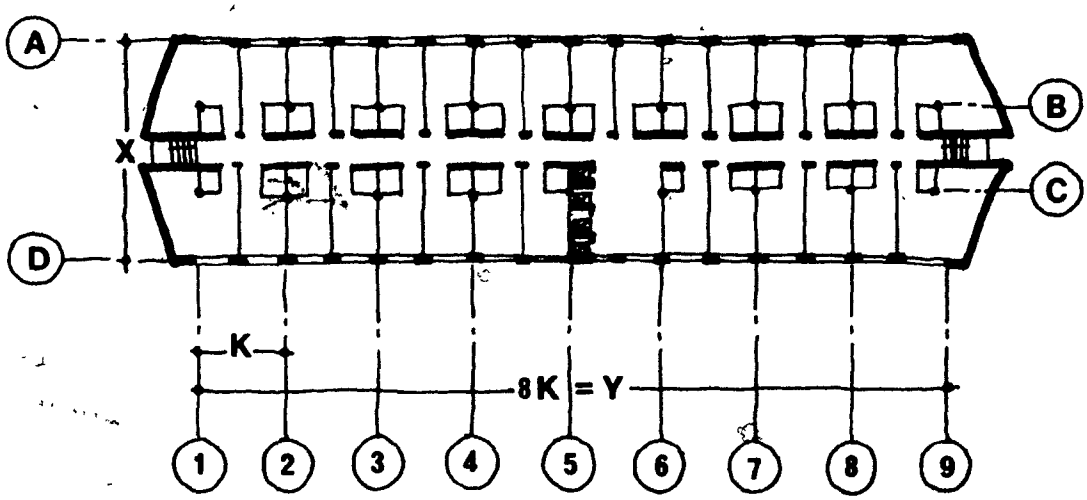



Fig. 3-11

3.3.1 The length of the hotel room floor 'Y'

(i) One bedroom unit in each bay: the structural grid will be the width of the room. i.e. a bathroom, a foyer, a wardrobe and part of the duct space. (Fig. 3-12)

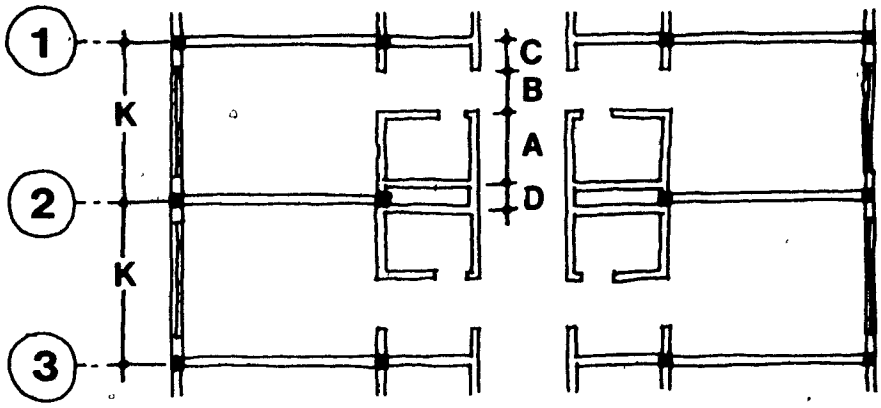



Fig. 3-12

$$Y = N\,(K)$$

$$K = A + B + C + \tfrac{1}{2} D$$

Legend:

A: Width of Bathroom
B: Width of Foyer
C: Width of Wardrobe
D: Width of Duct space
K: Width of Bedroom unit
Y: Length of Hotel Floor
N: Variables

(ii) Two Bedroom units in each bay:

The structural grid K, then will be the sum of two bathrooms, two foyers, two wardrobes and a service duct, (Fig. 3-13)

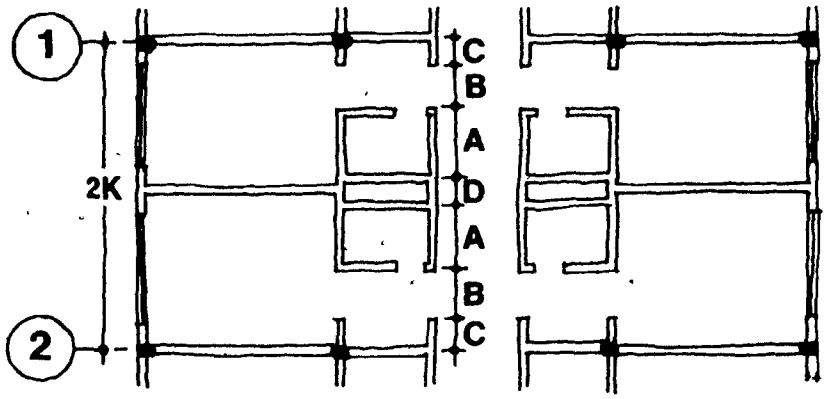



Fig. 3-13

$$Y = N\ (2K)$$

$$(2K) = 2A + 2B + 2C + D$$

3.3.2 The width of hotel room floor 'X'

The other grid dimensions across the building can be divided logically into three sections containing:

(i) X equal to 3 grids width

$X = 3L$

$3L = 2E + 2F + G$ (Fig. 3-14)

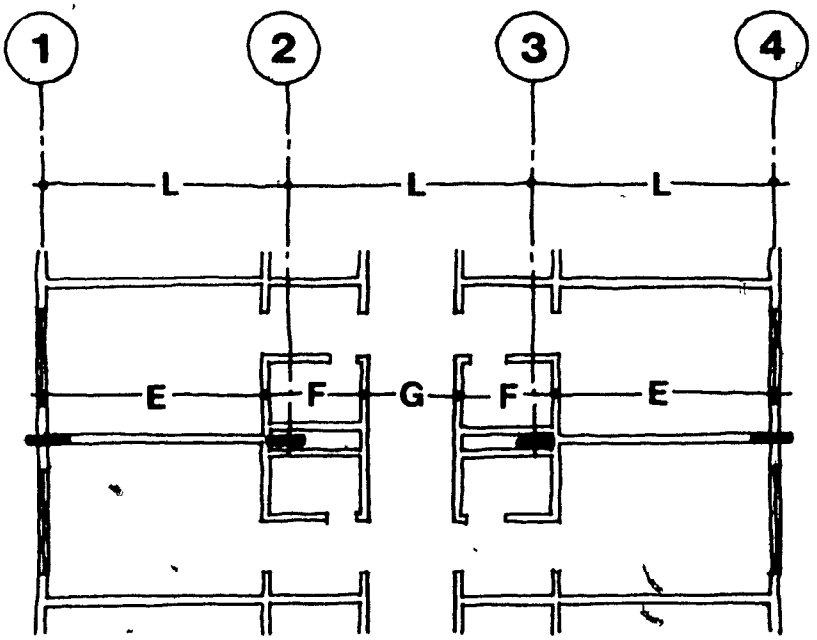



Fig. 3-14

Legend:

L: Width of Grid
E: Length of Bedroom
F: Length of Bathroom
G: Width of Corridor

X: Width of Hotel Floor
L1: Variables
L2: Variables
L3: Variables
L4: Variables

(ii) X equal to 2 large grids width with a small one or vice versa.

X = L2 + L1 + L3 = E + F + G + F + E (Fig. 3-15)

L2 may equal to L3

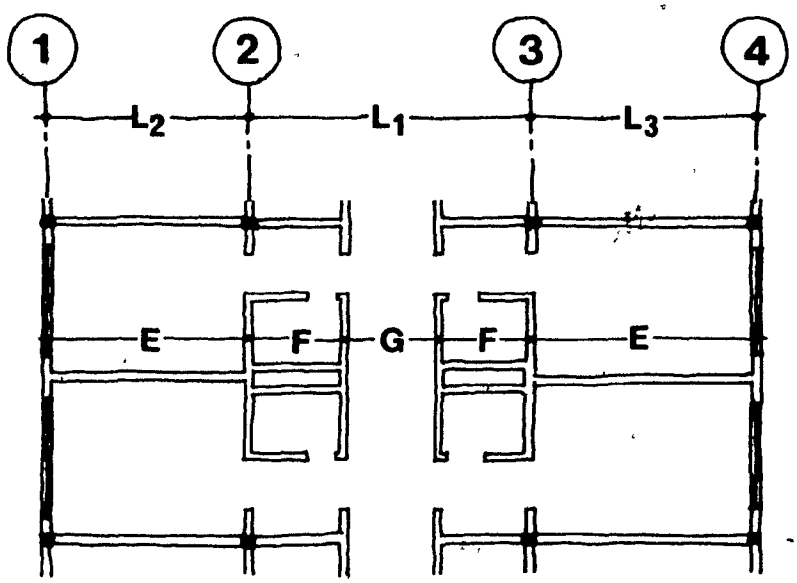



Fig. 3-15A

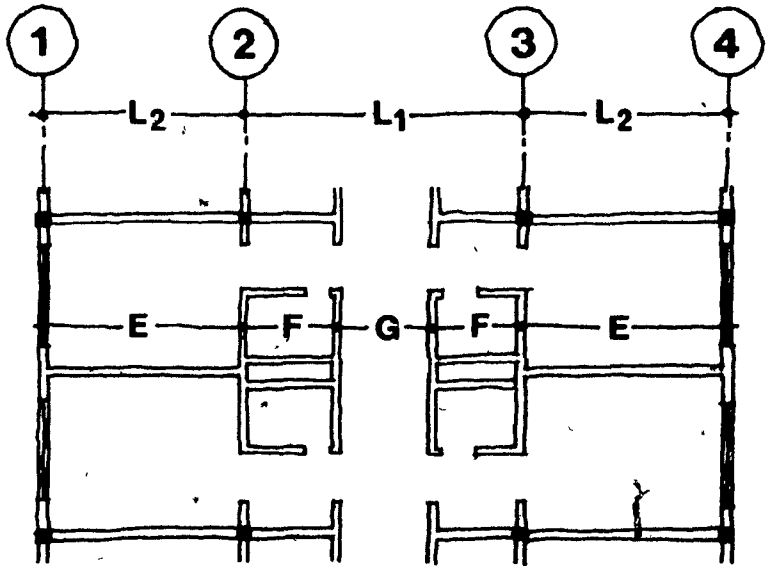



Fig. 3-15B

(iii) X equal to the structural grid with 2 portions of cantilevered length.

X = L3 + L + L4 (Fig. 3-16)

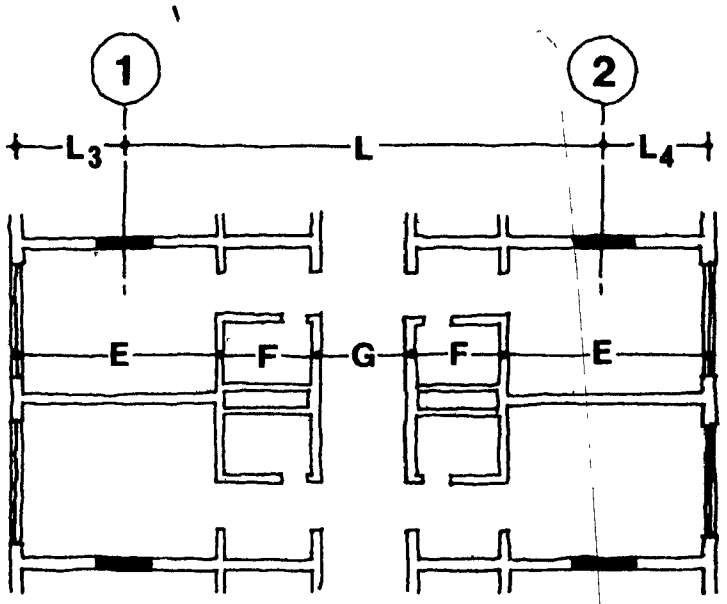



Fig. 3-16

3.4 Service Core

Service cores which carry out vertical circulation and service of hotel room floor areas may be composed of all or some of the following:

Elevators
Lobbies
Stairs
Shafts
Main Electrical Risers
Ducts
Chutes
Telecommunication Risers
Flues
Linen Rooms
Service Areas
Pantries
Incinerators

Positioning of vertical circulation elements on bedroom floor plans is important for convenient access to floor areas and for fire fighting requirements as well as services for the guest.[6] These factors will usually determine the position of the service cores which contain stairs, lifts, service areas, service rooms and service facilities in general as mentioned before.

There are several arrangements possible which will vary in different hotel floor layouts. Various arrangements are shown in the following page. (Fig. 3-17)

[6] Architects' Journal, 'Hotels', June 24, 1970, p. 1473

O : Position of Service Core

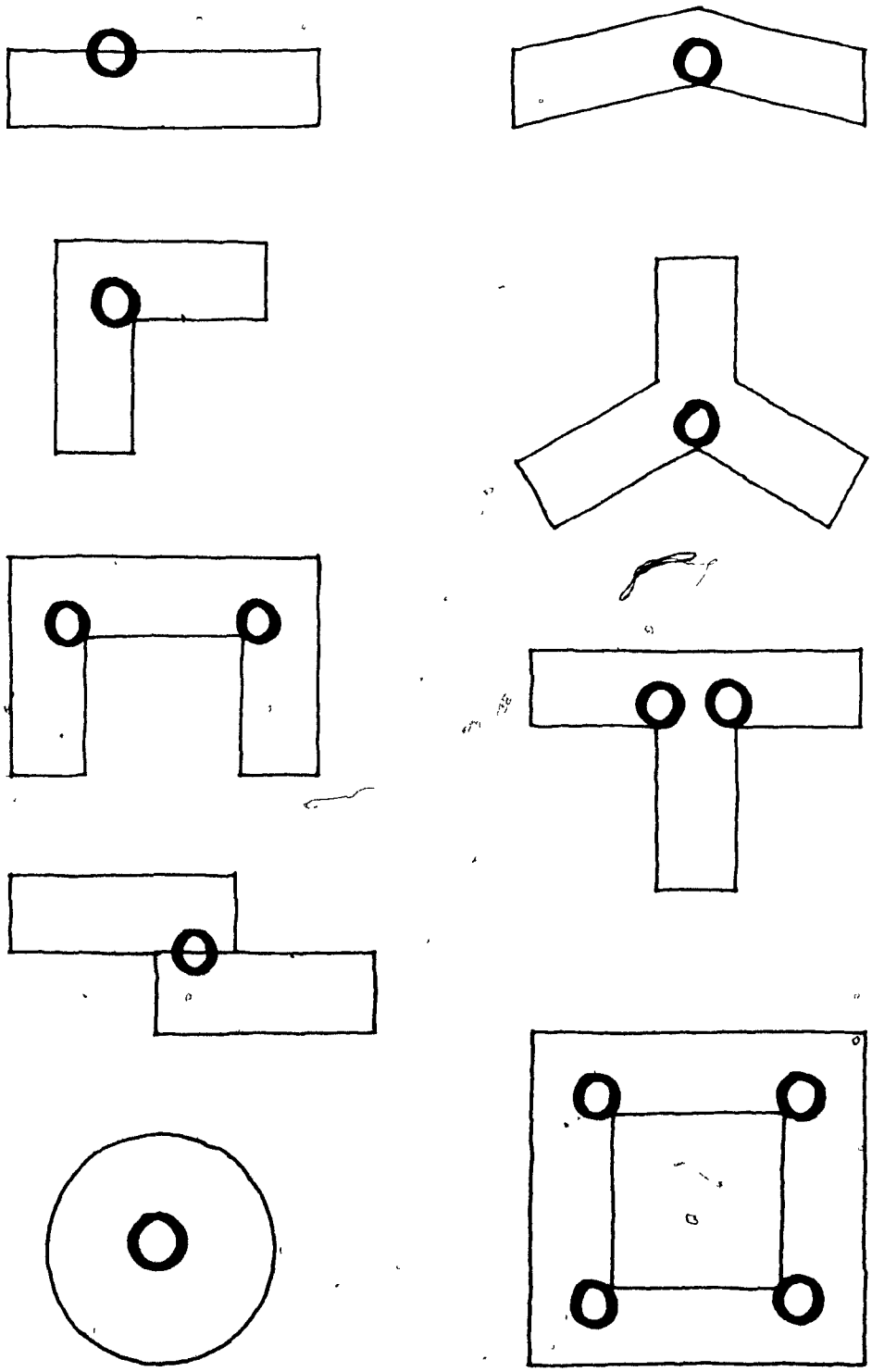


Fig. 3-17

Examples can be found in Section 3.6.

## 3.5 Support Systems

### 3.5.1 Heating, Ventilating and Air Conditioning

Each guest room must have, at all times, the provision of its own thermal environment as dictated by the occupant. This limits the type of system to the following:

| | |
|---|---|
| Single-duct reheat system | (Fig. 3-18) |
| Dual Duct | (Fig. 3-19) |
| Self contained units | (Fig. 3-20) |
| Fan coil units | (Fig. 3-21) |
| Induction system | (Fig. 3-22) |

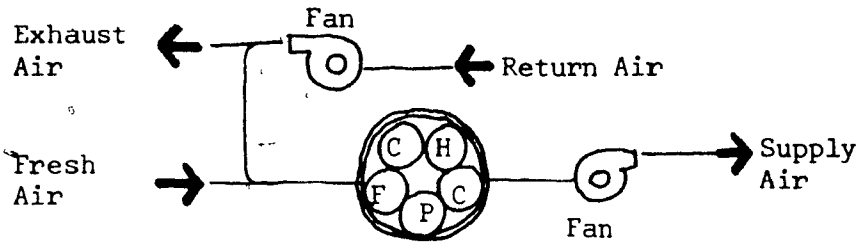
The self-contained unit has the lowest initial cost and space requirements, but a separate heating system is required; it is rarely used in new construction. The single duct reheat coil system and dual duct system are rarely used because of their high cost and large space requirements.

"The dual duct system is, however, widely used in the dining and meeting room areas of hotels where the size of the room is flexible and the load is highly variable."[7]

The use of an induction system for air conditioning the bedrooms is perhaps not the best choice with the problems of noise and maintenance. "Today one would more likely recommend the four pipe fan coil system."[8]

[7] Time-Saver Standards - A Handbook of Architectural Design, McGraw-Hill, Inc., 4th ed., (New York, 1966), p. 782.

[8] The Architects, 'Hindsight at the Hilton by Sidney Kane', Feb. 1971, p. 37.




Legend:

A:Air Mixing Box
C:Cooling or Heating Coil
F:Filter
H:Humidifier
M:Motor
P:Pump

Fig. 3-18 Single-Duct System

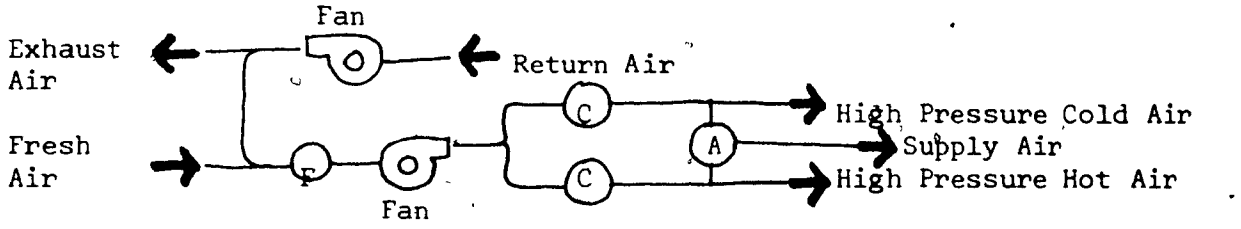



Fig. 3-19 Dual Duct System

Fig. 3-20 Self Contained Unit

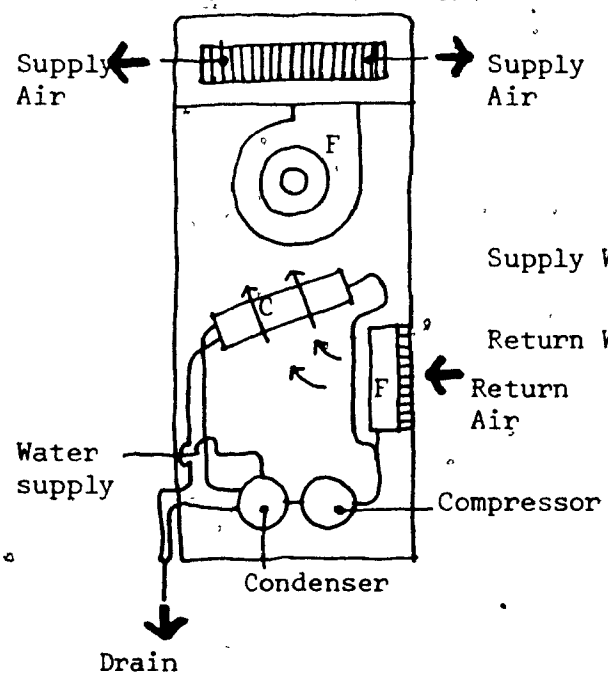
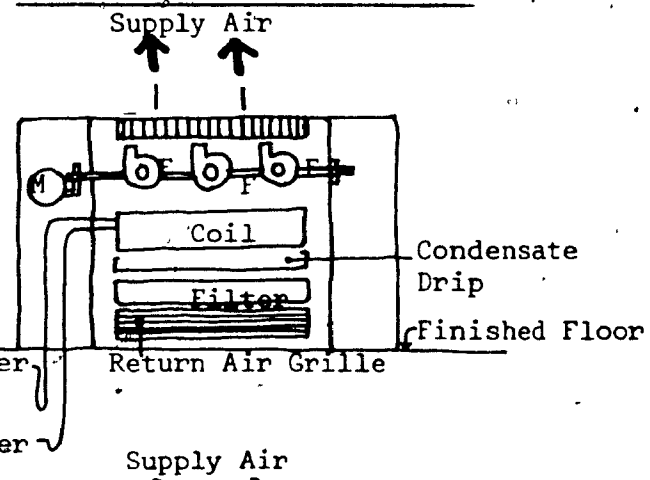



Fig. 3-21 Fan Coil Units



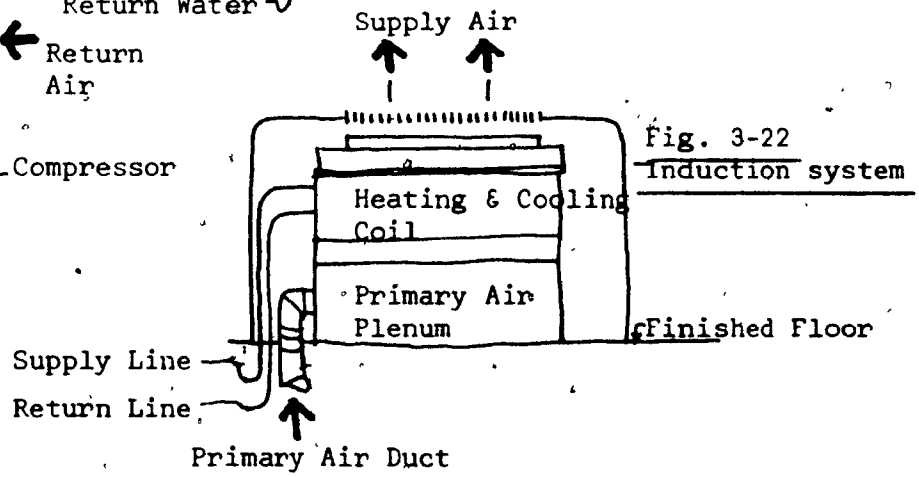




Fig. 3-22 Induction system

3.5.2 Plumbing and Ventilation

For efficiency and economy, plumbing fixtures should back up to the pipe shaft so that they can be served by short, horizontal pipe connections. Each pipe shaft should serve two bathrooms on each floor. (Fig. 3-23) The continuous vertical pipe shafts

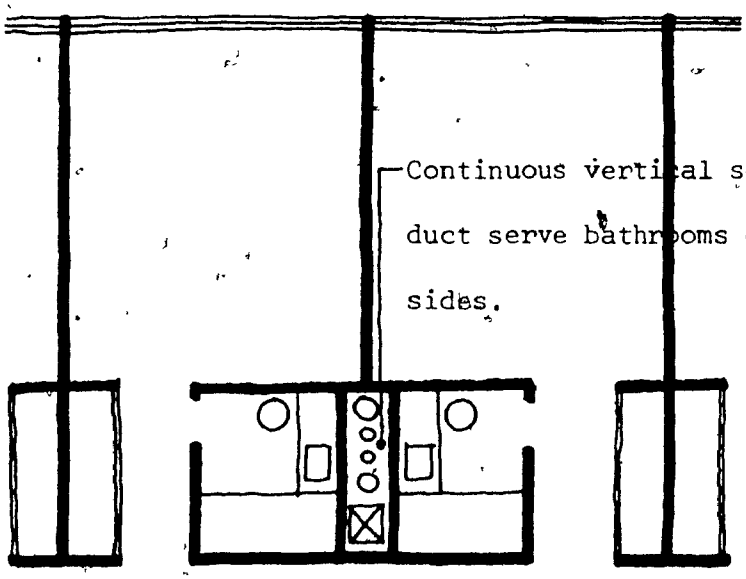



Fig. 3-23

should be large enough to contain the soil and vent stack, hot and cold water supply lines and possibly other piped or wired services. The pipe shafts should also accommodate mechanical ventilation, for air removal from the bathroom by an exhaust fan. "Sound transmission through the exhaust-grilles of adjoining bathrooms is very objectionable and should be avoided by connecting each register to an upturned elbow of sound absorbing material."[9]

[9] Time-Saver Standards, A Handbook of Architectural Design, McGraw-Hill, Inc., 4th ed., (New York, 1966), p. 1048.

An access door to the pipe shaft should be provided along the corridor on each floor; otherwise, access must be gained somewhere in the bathroom.

Plumbing services to the bathrooms will run in vertical shafts and it will be helpful if a service floor can be provided below the guest rooms, where the services can be collected into a few common runs, thus avoiding a multiplicity of ducts coming down through the public rooms.[10]

3.5.3 Fire Alarm

Fire alarms should be connected to the ventilation plant so that recirculated air is cut off in the event of a fire, thereby preventing the spread of smoke throughout the building. Booster pumps for fire fighting operate on the principle of maintaining constant high pressure in the mains. When a hydrant is opened the pressure falls and the pump automatically starts to reinstate the pressure.[11]

"Specific requirements of an escape route in case of fire are as follows:

i. Fire Resisting Construction

ii. Use of Non-combustible Materials

iii. Protection of Route and Approach

iv. Exits and Safe Outlets

v. Signs and Notices"[12]

[10] Hattrell, W. S., and Partners, Hotels Restaurants Bars, (London, 1962) p. 23.

[11] Ibid, p. 12.

[12] Architects' Journal, 'Hotels', June 24, 1970, p. 1575.

3.5.4 Stairs and Elevators

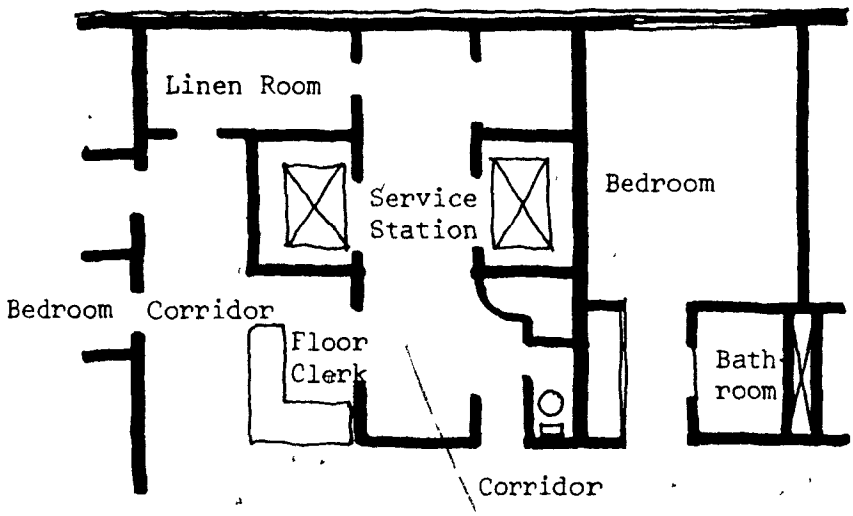
Elevators and staircases should be positioned as near to the centre of the bedroom block as the planning of the lower floors will permit, (Fig. 2-3 to Fig. 2-8) and emergency stairs should be placed at the ends of the block or, in long blocks, at such intermediate positions as are necessary to comply with fire regulations.

3.5.5 Service Areas

Service rooms are required on each bedroom floor. They should be planned so that they can be served by food lifts either directly from the main kitchen or preferably from a server adjacent to it. Sometimes a floor pantry is provided.[13] The floor chambermaid or waiter will operate from the service area. It should be fitted out with a sink and drainer unit, a domestic sized cooker and a table.[14] Breakfast will be served to guests in their rooms from this area. Tea, coffee, toast and light meals may be prepared here, but main meals will be cooked in the kitchen.

If there is a linen room in this area, it should be linked by food lifts to a service area adjacent to the main kitchen. It includes linen storage, a housemaid's closet, a sink for cleaning purposes and waiters' rooms; these are generally arranged within one or two of the standardized units ( Fig. 3-24)

[13] Architects' Journal, 'Hotels', June 24, 1970, p. 1599.
[14] Ibid, p. 1574.

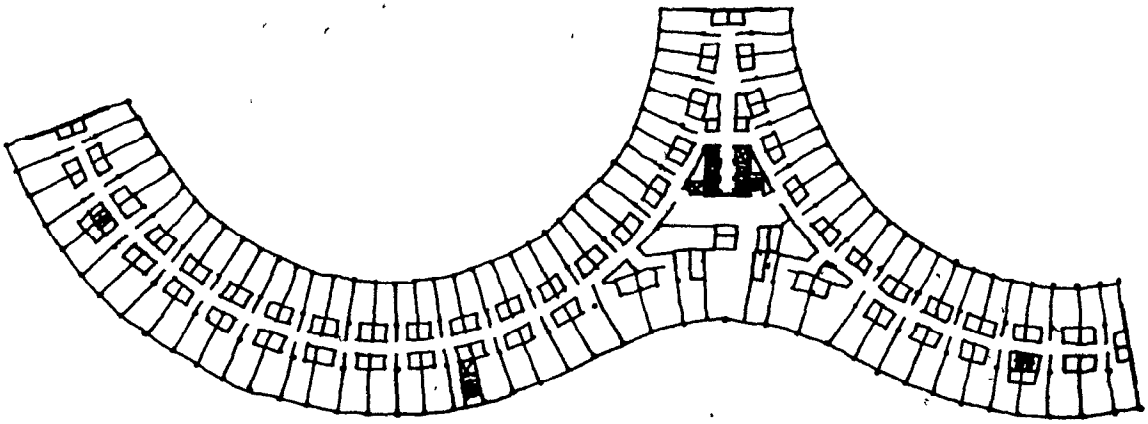



(Imperial Hotel-
East Building
Tokyo, Japan)

(Figure 3-24)

3.6 Floor Layouts - Examples

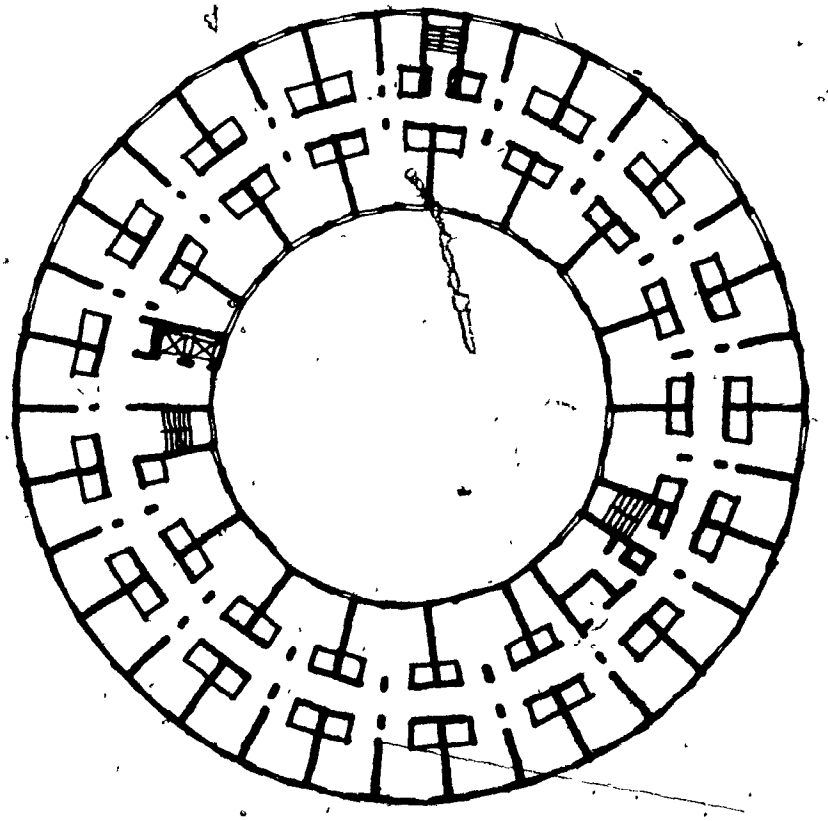
Examples of different floor layouts of the existing hotels around the world are shown in the following pages:



Hilton Hotel
Washington, U.S.A.

Architects: William B. Tabler

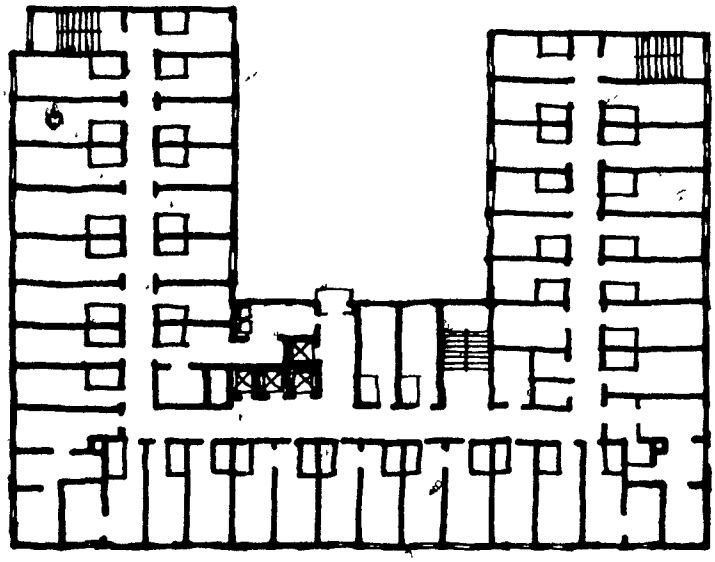
Fig. 3-25



Ariel Hotel
London, England

Architects: Russell Diplock Associates

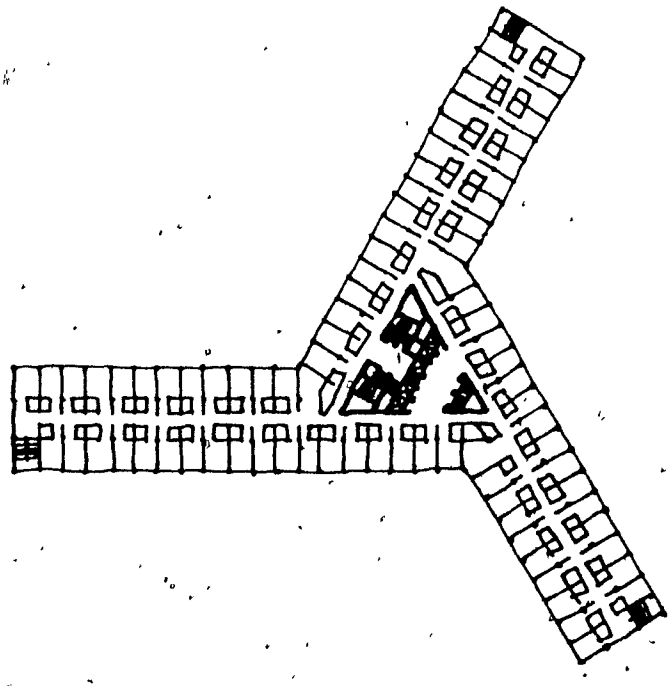
Fig. 3-26



Hotel Malmen
Stockholm, Sweden

Architect: Georg Varhelvi

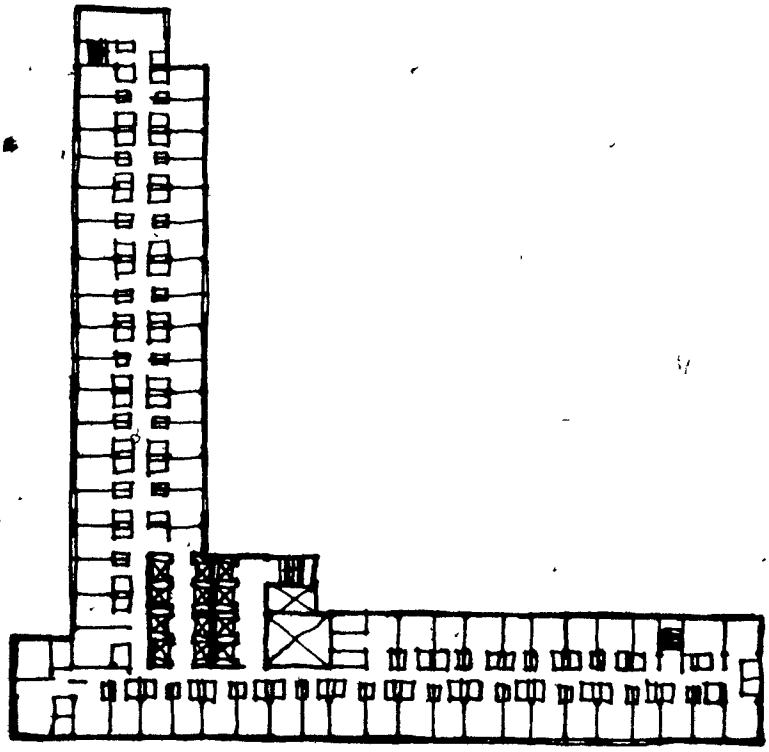
Fig. 3-27



The Hotel New Otani
Tokyo, Japan

Taisei Construction Co., Ltd.

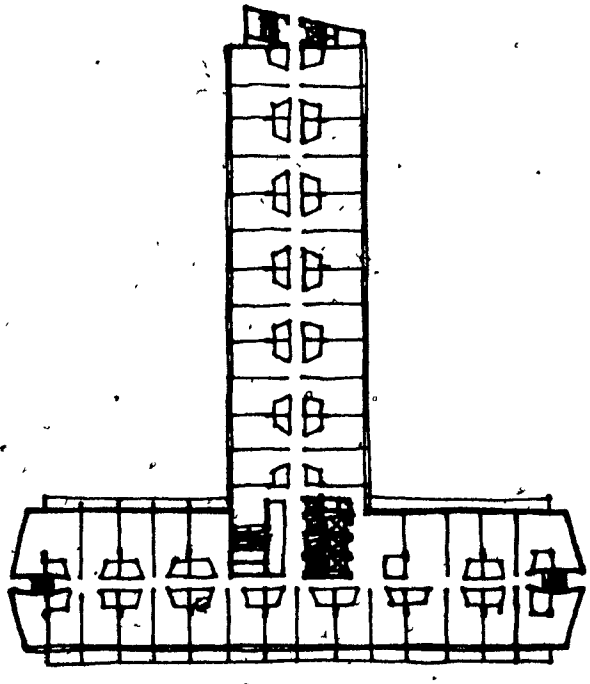
Fig. 3-28



Queen Elizabeth Hotel
Montreal, Canada

Architects: Jutras Nicholson & Associates

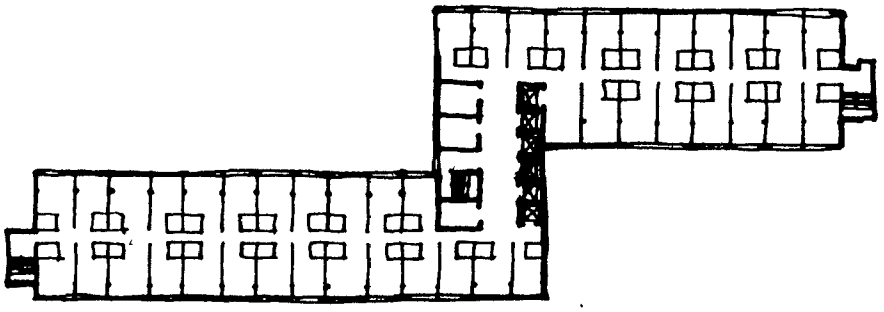
Fig. 3-29



Hotel Royal Garden
London, England

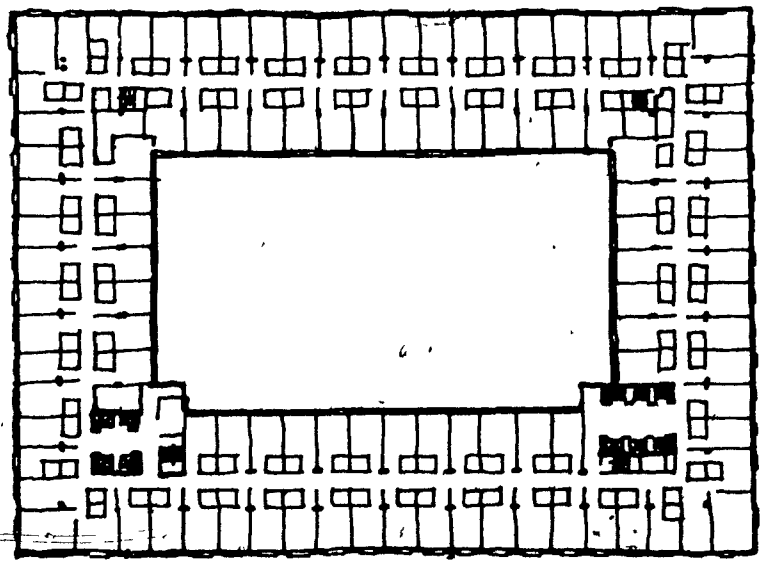
Architects: R. Seifert & Partners

Fig. 3-30



Alpha Hotel, Amsterdam, Holland
Architects: E.F. Groosman

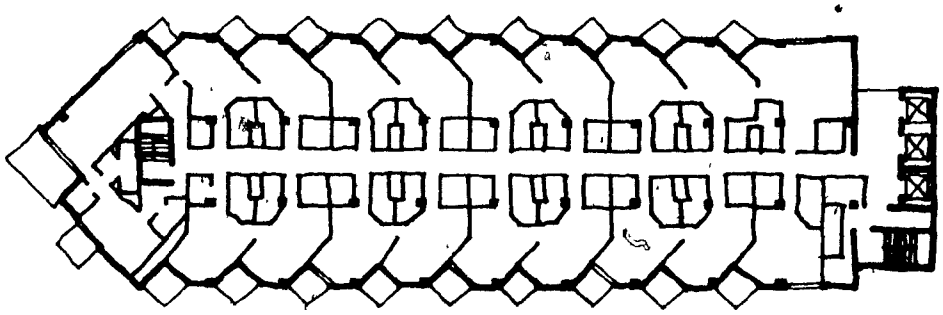
Fig. 3-31



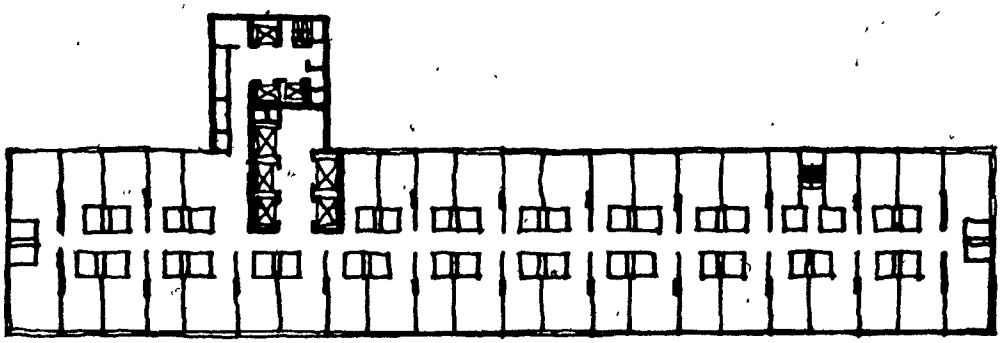
Hilton Hotel
San Francisco, U.S.A.

Architects: William B. Tabler

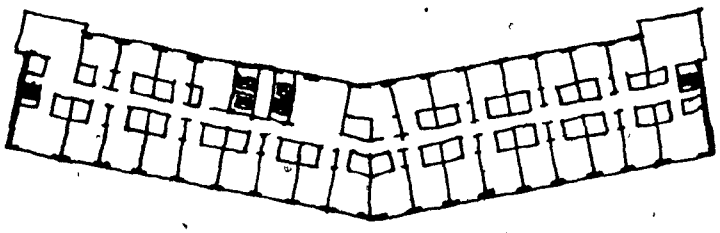
Fig. 3-32



Hotel Nellisola di Aruba Architect: Morris Lapidus
Fig. 3-33



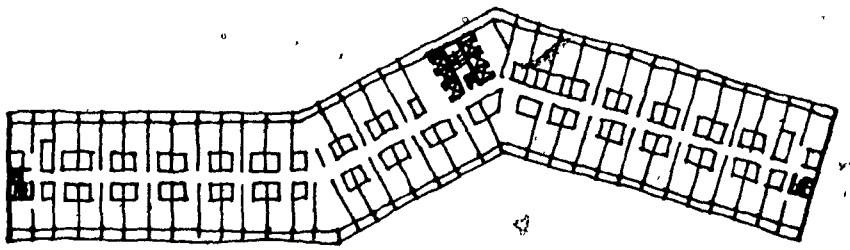
Pittsburgh Hilton Architect: William B. Tabler
Fig. 3-34



Hilton Hotel
Amsterdam, Denmark

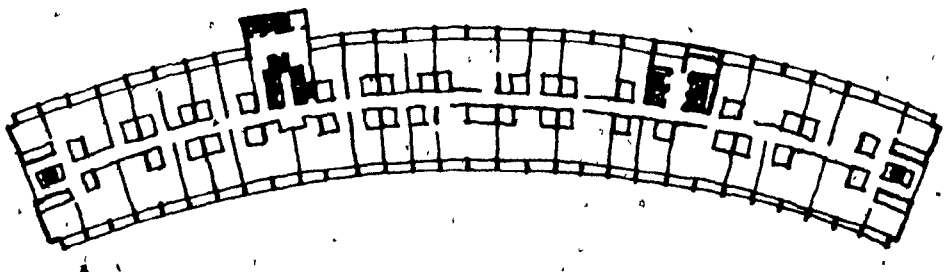
Architects: H.A. Masskant
F.W. Vlaming &
H. Salm

Fig. 3-35



Hotel Cavalieri
Rome, Italy

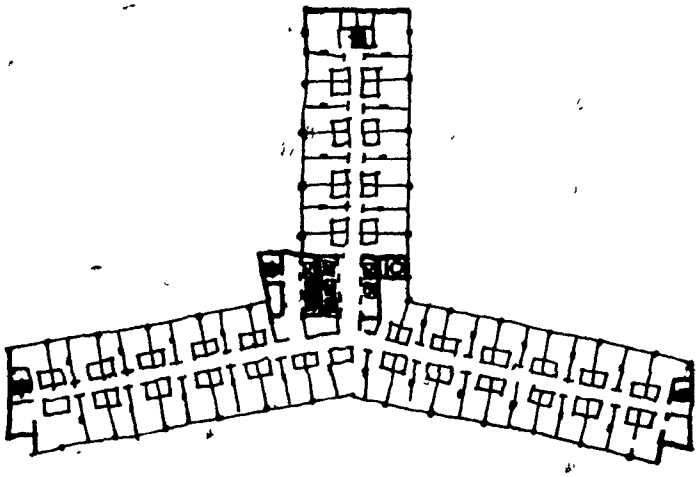
Fig. 3-36



Century Plaza Hotel
Los Angeles, U.S.A.

Architects: Minoru Yamazaki
and Associates

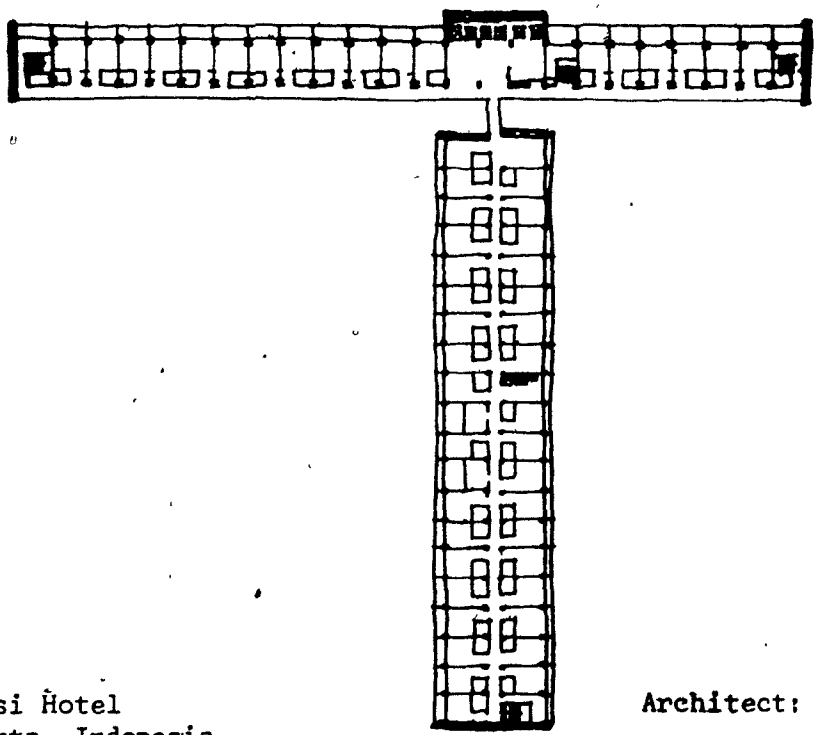
Fig. 3-37



Statler Hilton
Dallas Texas, U.S.A.

Architect: William B. Tabler

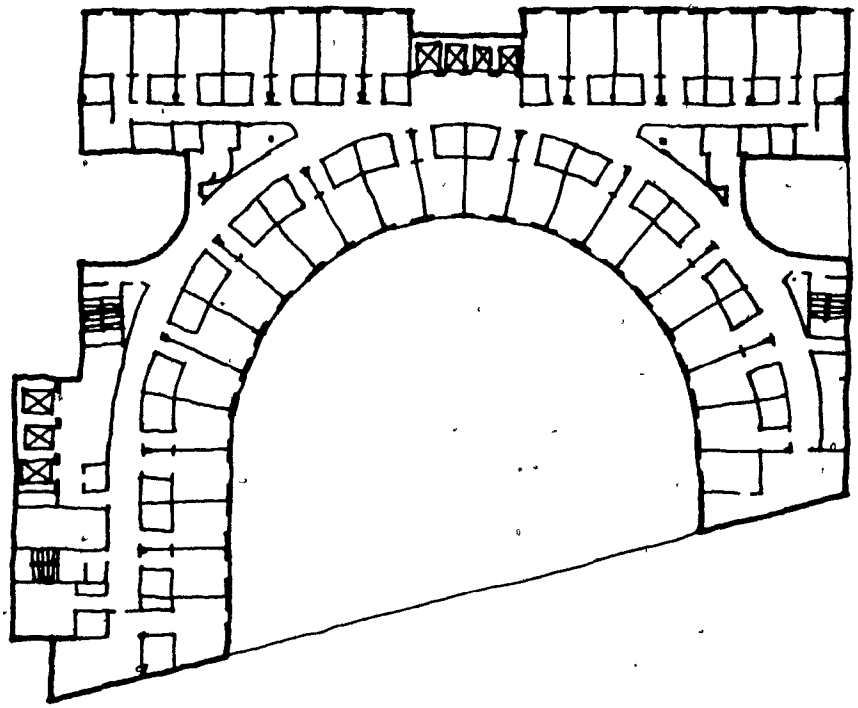
Fig. 3-38



Situasi Hotel
Djakarta, Indonesia

Architect: P.T. Pembanguman Perumahan

Fig. 3-39



Wentworth Hotel
Sydney, Australia

Architects: Skidmore, Owings, & Merrill
Laurie & Heath

Fig. 3-40

IV

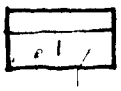
## Hotel Rooms - An International Survey

In order to make comparisons the typical room plans of more than 35 hotels have been illustrated. These range from 150 to 1000 guest rooms in size, and are of wide geographic distribution. They are predominantly of the city, commercial-type high-rise hotels. Residential, luxury and resort hotels are not included. This gives a general view of hotel rooms and also shows the similarities and variations in their sizes and types. To convert this mass of data accumulated from an international hotel room survey to a clear and more usable form, a list of information has been compiled and a statistical study of the size of these room units has been made. The result is a chart that indicates the most common dimension ratio of room units which will serve as a reliable guide to planning.

Legend: S.R. Single Room
D.R. Double Room
T.R. Twin Bedded Room


Single Bed

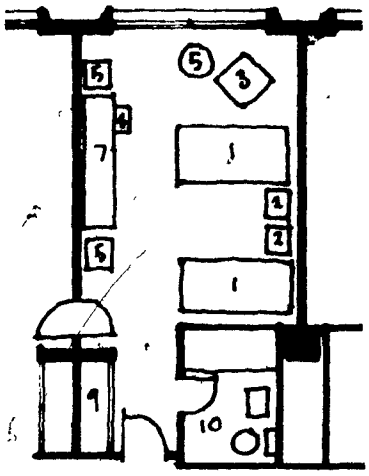

Double Bed




Couch (Sofabed)

Bidet

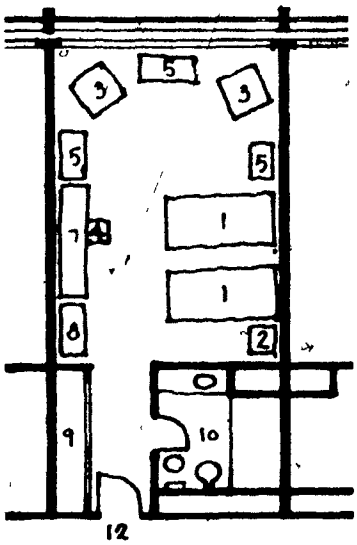
1 Bed
2 Night Table
3 Easy Chair
4 Chair
5 Table
6 Shelf of Drawer
7 Dressing Table/Writing Desk
8 Luggage Rack
9 Wardrobe (Closet)
10 Bathroom
11 Balcony
12 Corridor (Entry)



12.

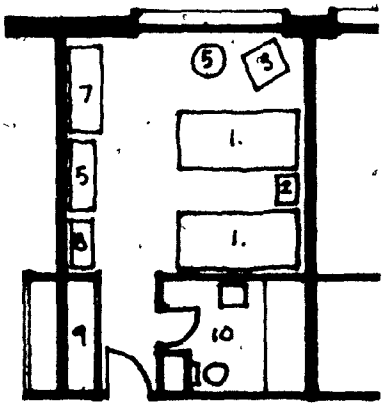
Intercontinental Hotel
Auckland, New Zealand
Architects: Welton, Becket & Associates
Type: T.R.
Size: 12'-6" x 25'-6"

An interconnecting door.
Off setting Entrance.



12

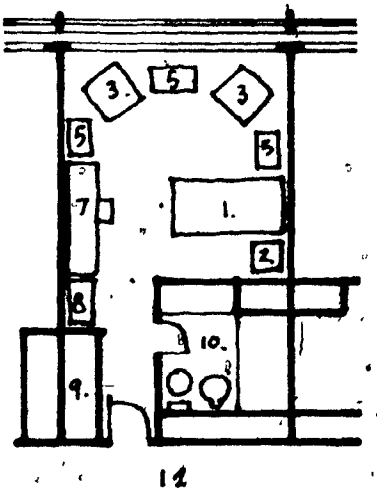
Brussels Europa Hotel
Brussel, Belgium
Architects: Katz, Vaughan & Partners
Jacques Cuisinier
Types: S.R. & D.R.
Size: 13' x 22'-6" &
13' x 27'-6"



12.

Great Southern Hotel
Killarney, Ireland
Architect: G.P. O'Shea
Type: T.R.
Size: 14' x 21'-6"

Independent duct & Bathroom.
A Hotels Group in Ireland.

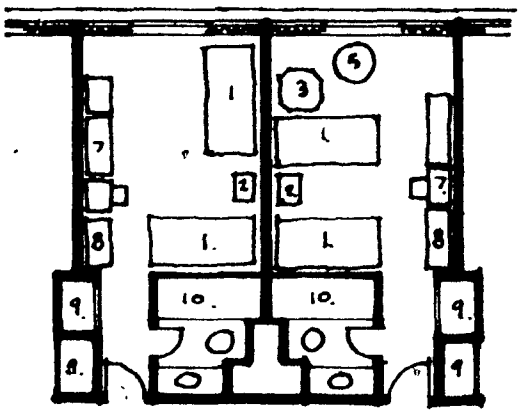


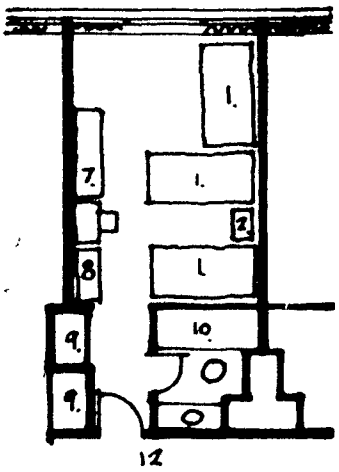
12

Grand Metropolitan Hotels.
London, England.

4-fixtures in Bathroom.
Obvious distinction between S.R. and D.R.

Scale = 0 5 10 15



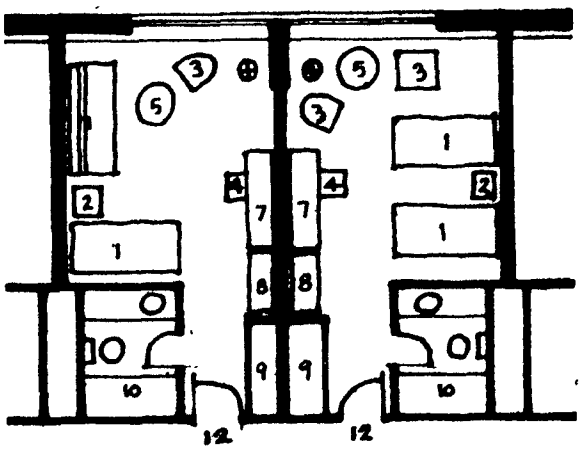


E.H.C. London Hotel
London, England
Grand Metropolitan Hotels

Types: T.R.
Size: 10'-8" x 13'-10"

Type: Triple Bedroom
Size: 10'-8" x 15'-10"

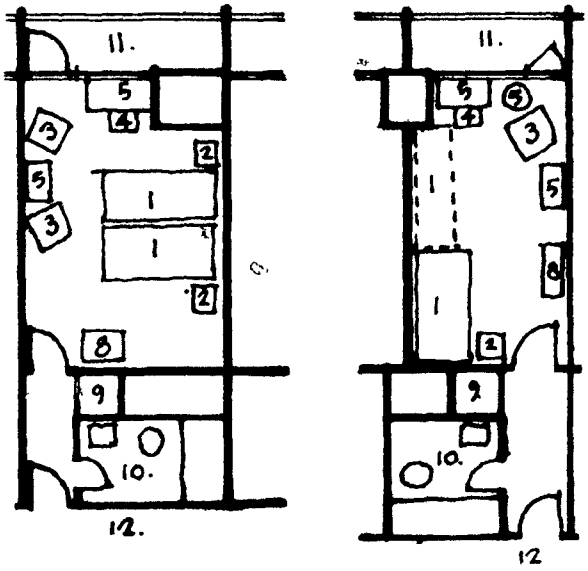
Triple Bedroom retains furniture and width of 10'-8" but total depth is 15'-10" instead of 13'-10".
Closet seems smaller.
Distinct Bathroom layout. G.M. Hotels style.



Vienna Inter-continental Hotel.
Architect: Carl Appel
Vienna, Austria
Types: T.R. & Combination
Size: 12'-0" x 22'-6"

It seems more spacious in Combination than in T.R.. (Without the easy chair).

Scale= 0 5 10 15

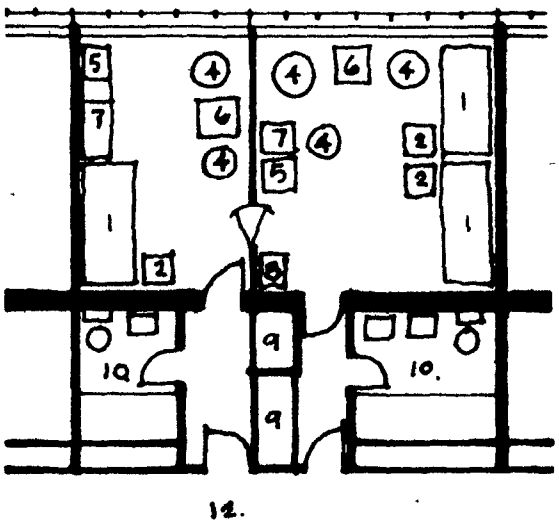



Hotel Metropol
Beograd, Yugoslavia

Type: D.R.
Size: 11'-6" x 24'

Type: S.R.
Size: 9'-0" x 25'-6"

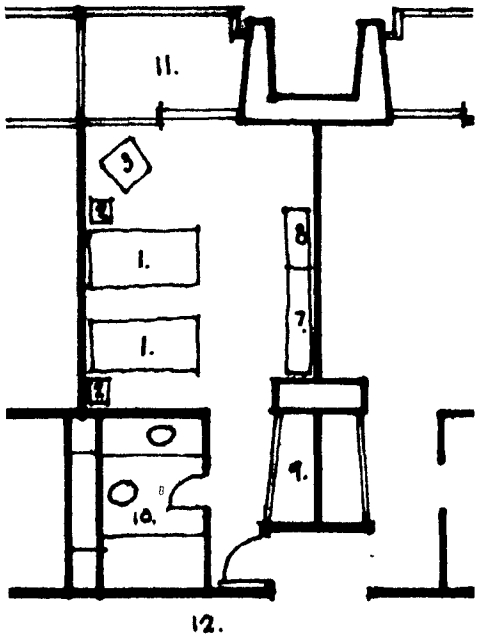
Closet and Bathroom on the same side.
A vestibule.
A long narrow S.R.



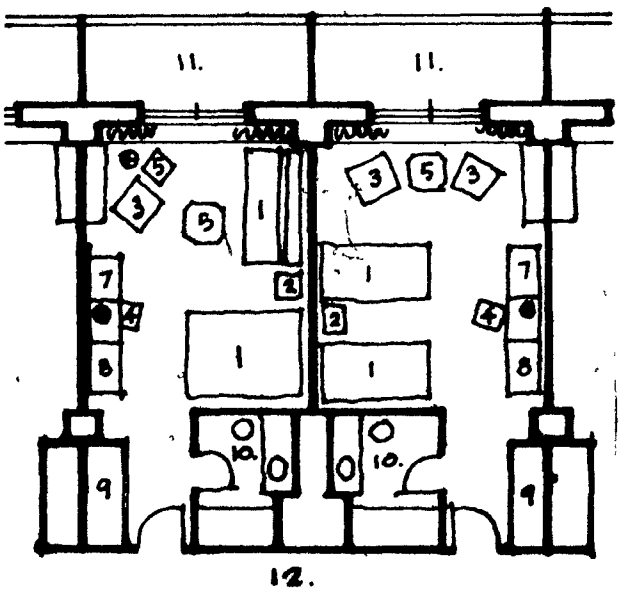

SAS Royal Hotel
Copenhagen, Denmark
Architect: Arne Jacobsen
Types: S.R. & D.R.
Size: 10' x 25' &
14' x 25'

Duct adjoins the corridor.
A vestibule.
Interconnecting door for Suite.
Two wash-basins may affect furniture arrangement.

Scale= 0 5 10 15

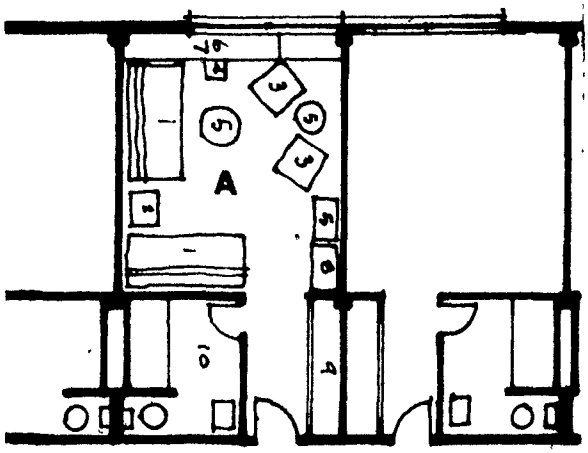



Addis Ababa Hilton
Addis Ababa, Ethiopia
Architects: Warner, Burns, Toan and Lunde
Type: T.R.
Size: 13'-0" x 26'-0"
'Luxurious' Bathroom.

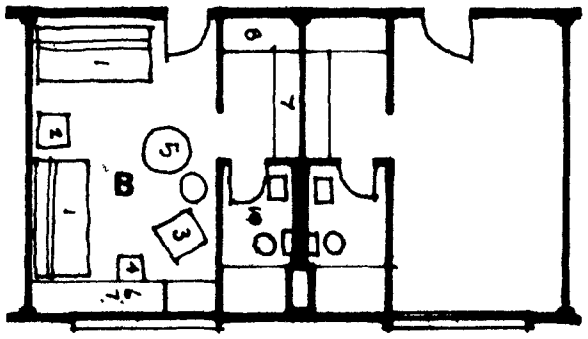



Hotel Inter-Continental
Nairobi
Nairobi, Kenya-EastAfrica
Architects: The Walter M. Ballard Corp.
Types: T.R. & Studio
Size: 13'-0" x 24'-0"

Scale= 0 5 10 15




12




Hotel Bogota
Bogota, Colombia
Architects: Cuellar, Serrano, Gomezy CIA., LTDA.
Architects, Engineers, and Builders.
Type: Twin Studio
Size

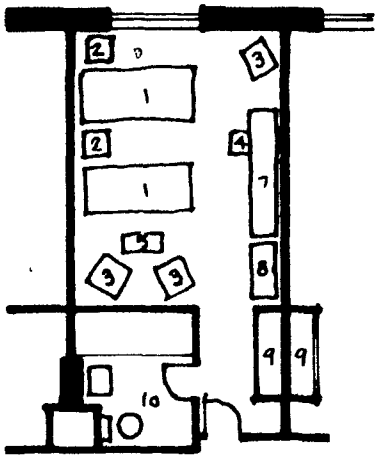
**A.** 12'-6" x 23'-0"

Shelf along the exterior wall.
Different room layout along
two sides of the corridor.

**B.** 17'-0" x 15'-0"

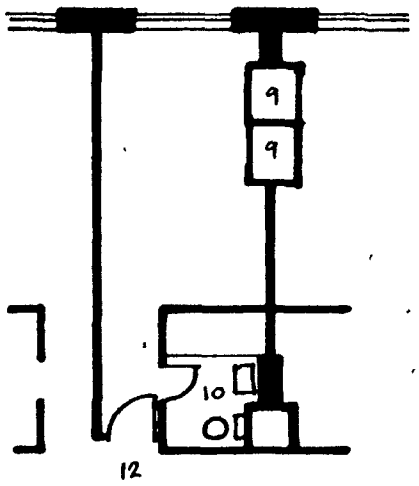
A dressing area.
Bathroom along
exterior wall.

Scale= 0 5 10 15

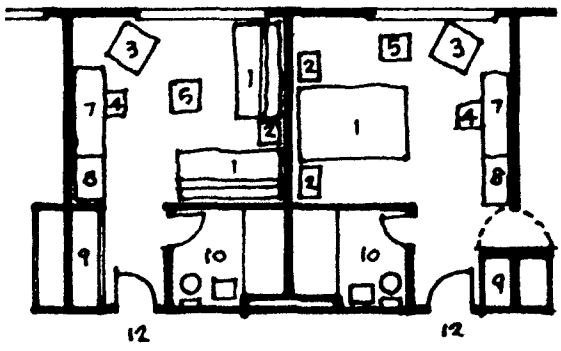


The Britannia Hotel
London, England
Grand Metropolitan Hotels
Type: S.R.
Size: 9'-6" x 16'-0"

A distinct bathroom shape.
Distinct closet location in S.R.



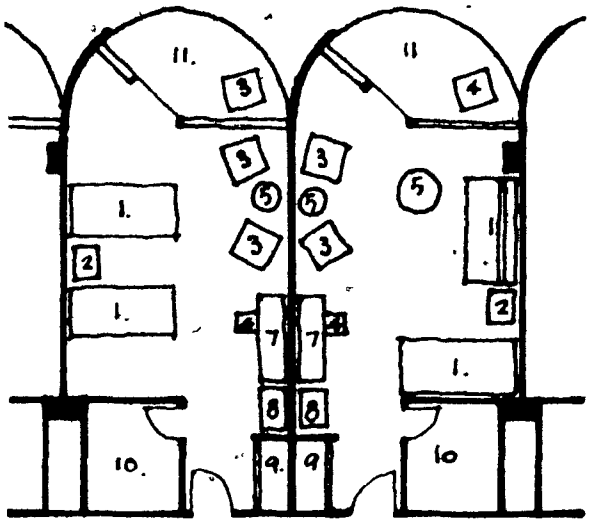
Type: T.R.
Size: 12'-0" x 16'-0"

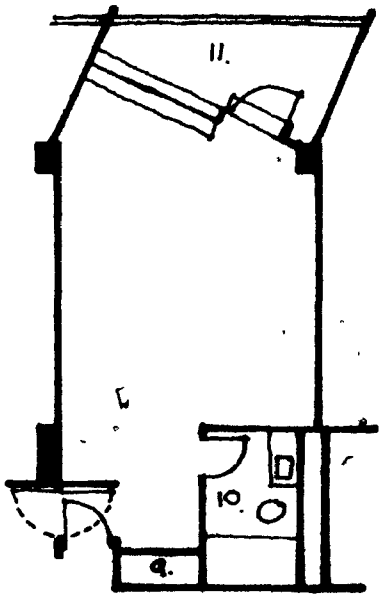


Alpha Hotel
Amsterdam, Holland
Glym Smith Associates
Types: D.R. & T. Studio
Size: 12'-6" x 11'-0"

The communicating door reduces the closet area.

Scale= 0 5 10 15

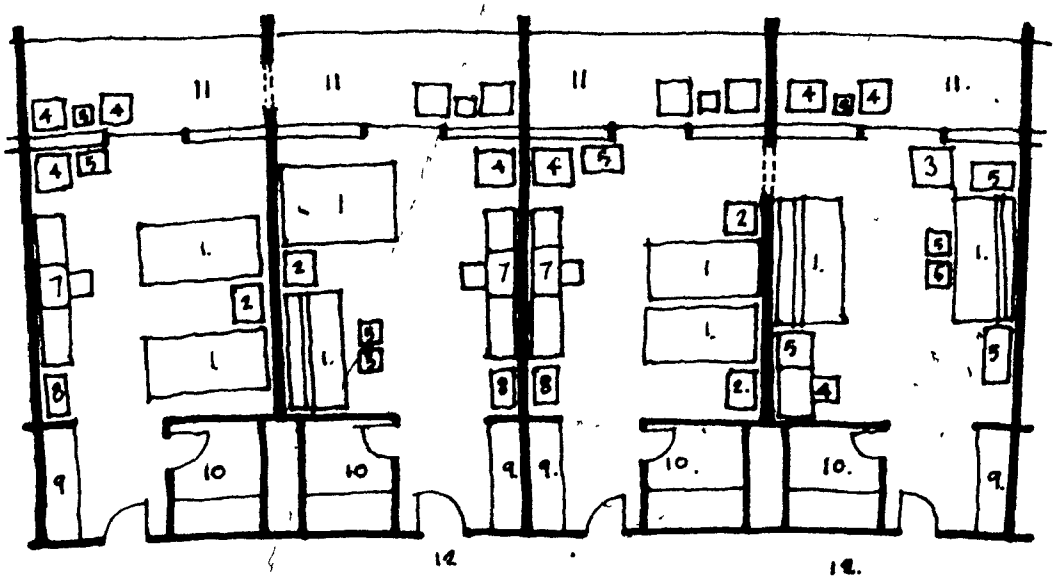



El Ponce Intercontinental Hotel
Ponce, Puerto Rico
Architects: William B. Tabler
J.C. Mayer & J.B. Robinson
Types: T.R. & Combination
Size: 12'-6" x 22'-6"
'Circular'balcony.
Spaces seem larger.

Caribe Hilton
Architects: Warner, Burns,
Toan & Lunde
Types: T.R., D.R.
Size: 14' x 24'-6"
'Trapezoid' balcony in
lower level.
A special foyer with inter-
connecting door.

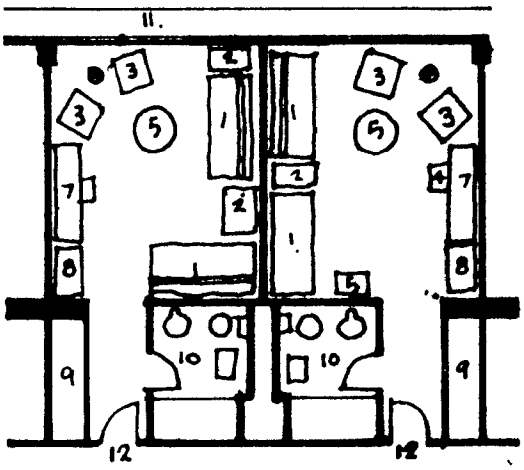
Scale= 0 5 10 15



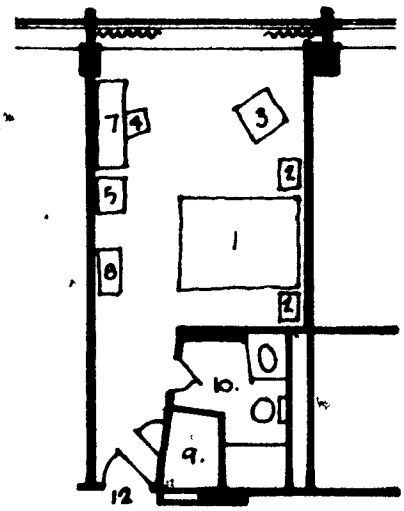
The Carlton Beach Hotel
Southampton, Bermuda
Architects: William B. Tabler
Raymond C. Giedraitis
Types: T.R., Double Studio & Twin Studio
Size: 14'-0" x 22'-6"

'Fan' shape Plan, Examples for different room arrangements.

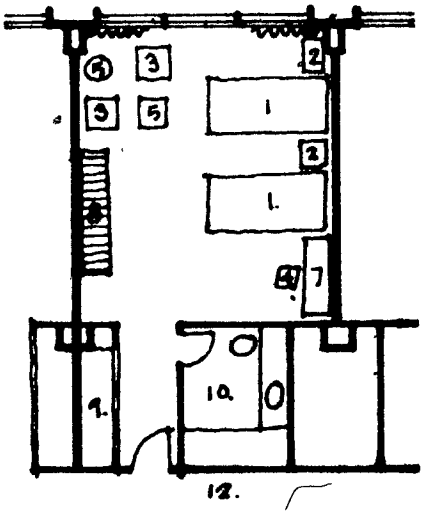
Scale= 0 5 10 15



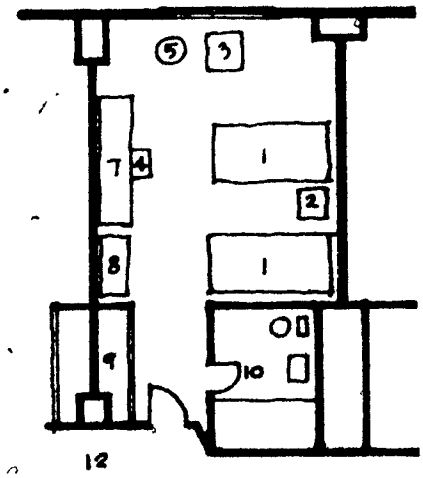
Buenos Aires Intercontinental
Architects: William B. Tabler
David P. Dann
Buenos Aires, Argentina
Types: Twin Studio & Combination
Size: 12'-0" x 22'-6"
4-fixture bathroom.
(Tub, Basin, Toilet and Bidet)



Calgary Inn
Calgary, Canada
Western Service & Supply Co.
Type: D.R.
Size: 13'-0" x 24'-0"
'Trapezoid' shape foyer



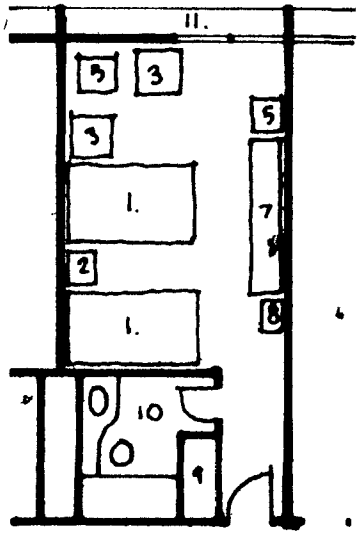
President Hotel
Taipei, Taiwan
Architects: Yang & Shou
Type: D.R.
Size: 13'-6" x 23'-6"



Imperial Hotel (New Main Building)
Tokyó, Japan

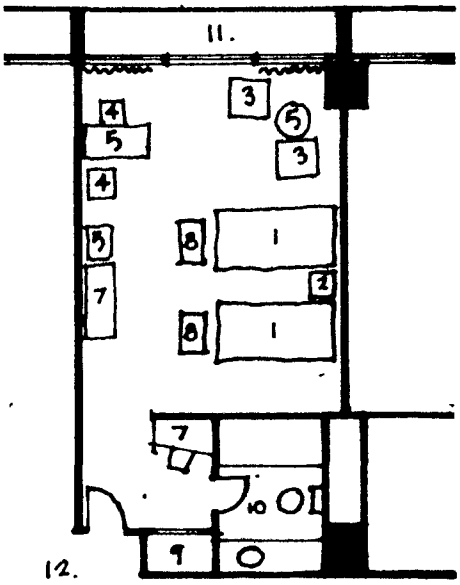
Type: S.R. & D.R.
Size: 13'-6" x 24'-0"

Scale= 0 5 10 15

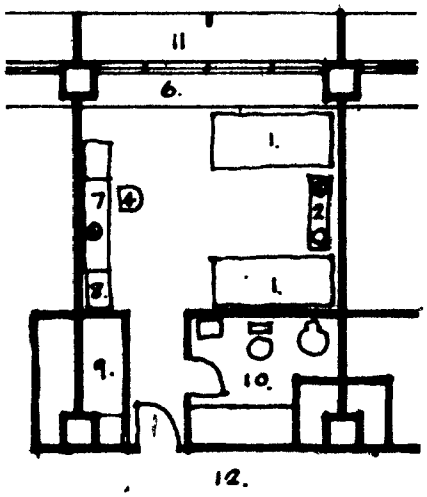



Holiday Inn
Holiday Inn Inc. Design Dept.
Type: Double-double Bedroom
Size: 12'-8" x 28'-0"

Typical Double Room of
Holiday Inn Inc. hotels.
Two double beds.




Houston Oaks Hotel
Texas, U.S.A.
Type: T.R.
Size: 15'-0" x 29"-0"
Western International Hotel
A large bathroom.
A big living area.

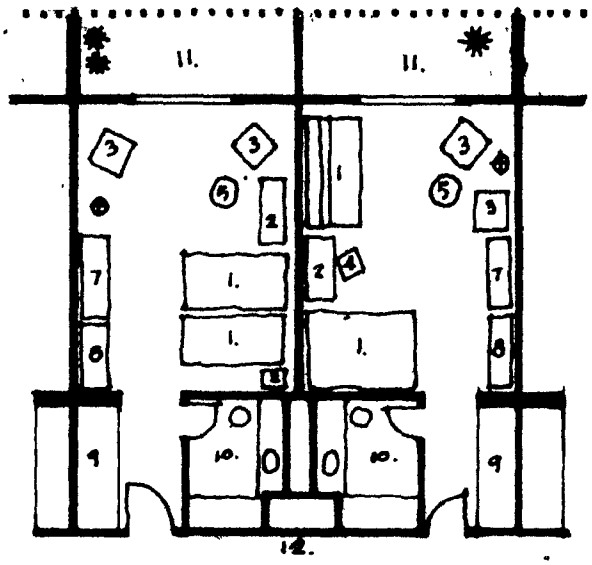



Hotel Indonesia
Djakarta, Indonesia

Type: D.R.
Size: 14'-6" x 21'-0"

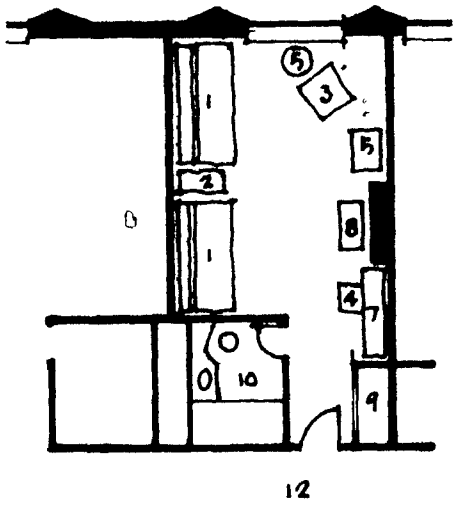
Situasi Hotel Indonesia
Architects: P.T. Pembangunan
Perumahan.

Scale= 0 5 10 15



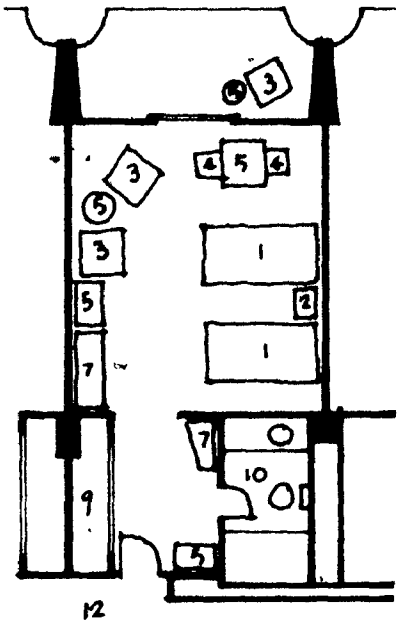

Hotel Inter-Continental
Karachi
Karachi, Pakistan
Architects: William B. Tabler, E. Branning and
J.B. Robinson
Type: Studio, D.R. & T.R.
Size: 12'-6" x 23'-0"

Scale= 0 5 10 15



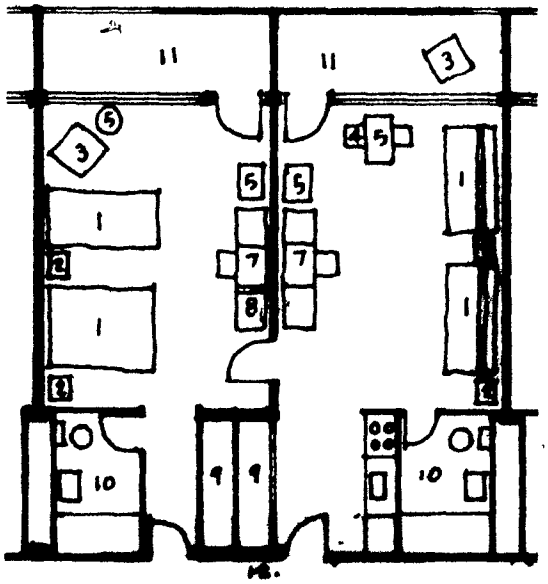
Pittsburgh Hilton
Pittsburg, U.S.A.
Architect: William B. Tabler
Type: Studio Twin Room
Size: 11'-10" x 23'-0"

Small dressing area.
A Hilton hotel.



Century Plaza Hotel
California, U.S.A.
Western Service & Supply Co.
Type: T.R.
Size: 14'-4" x 24'-4"

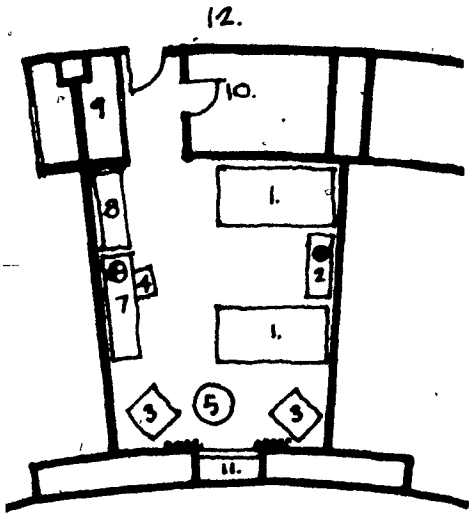
A large dressing area.
2 duct spaces.
Western International Hotels.



Seaway Hotel, Toronto
Ontario, Canada
Architects: A. Elkefn &
R.W. Becksted
Types: T.R. & Studio Twin R.
Size: 13' x 18'

A 2 room Suite.
A kitchenette in T.R.

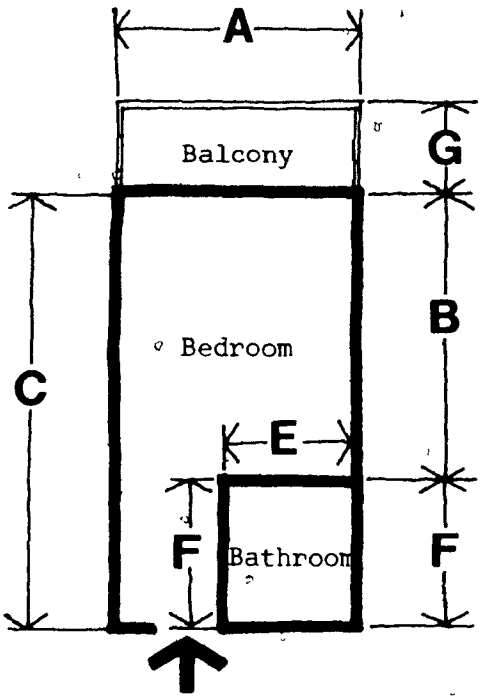
Scale= 0 5 10 15




Wentworth Hotel
Sydney, Australia
Architects: Skidmore, Owings & Merrill
Laurie & Heath
Types: Studio & D.R.
Size: 14'-0" x 22'-6"
'Fan' Shape Plan

Scale= 0 5 10 15

Legend for the following charts (1 to 5).



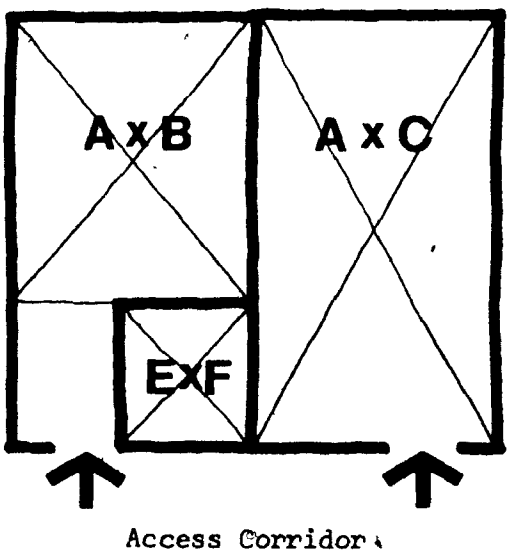

Legend:

A: The width of the bedroom
B: The depth of the bedroom
C: The depth of the unit
E: The depth of the bathroom
F: The width of the bathroom

G: The depth of the balcony

Ratio = B/A

A x B = Area of bedroom
A x C = Area of the unit
E x F = Area of the bathroom



AN INTERNATIONAL SURVEY OF HOTEL ROOMS

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq.Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1. | Hotel Istanbul - Hilton<br>Som and Sedat. H. Eldm Architects<br>Istanbul, Turkey | | | | | | | 336 sq. ft.<br>8 stories |
| | 13'-9" | 16'-6" | 24'-4" | 6' x 7' | 6'-4" | 228 | 1.2 | 300 rooms |
| 2. | Hotel Val Hall<br>Bertil Mattsson & Sven Karlarsen<br>Kalix, Sweden | | | | | | | |
| | 10'-0" | 15'-0" | 21'-6" | 6' x 6'-6" | - | 150 | 1.5 | 215 sq. ft. |
| 3. | Hotel Astoria<br>Theo Hotz and Alfred Altherr<br>Lucerne, Swiss | | | | | | | |
| | 12'-0" | 17'-0" | 26'-0" | 7' x 9' | - | 204 | 1.42 | 312 sq. ft. |
| 4. | Hotel Ostersund<br>Acking & Sar Ven Hessell<br>Gren, Sweden | | | | | | | |
| | 11'-0" | 15'-0" | 23'-6" | - | - | 165 | 1.36 | 258.5 sq. ft. |
| 5. | The Britannia Hotel<br>Grand Metropolitan Hotels<br>London, England | | | | | | | |
| | 9'6" | 16'-0" | 24'-0" | 5' x 7' | - | 152 | 1.1 | 228 sq. ft. SR. |
| | 12'-0" | 16'-0" | 24'-0" | 5' x 7' | - | 192 | 1.33 | 448 rooms<br>288 sq. ft. DR. |
| 6. | E.H.C. London Hotel<br>Grand Metropolitan Hotels | | | | | | | |
| | 10'-8" | 13'-10" | 21'-6" | 5'-6" x 7'-6" | - | 138.86 | 1.29 | 914 rooms |
| | 10'-8" | 15'-10" | 23'-6" | 5'-6" x 7'-6" | - | 160.00 | 1,47 | 231 sq. ft. DR.<br>252 sq. ft. TR. |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq.Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 7. | Interhotel 'Panovama'<br>Oberhof, Germany | | | | | | | |
| | 12'-0" | 14'-0" | 22'-6" | 6'-6" x 7'-8" | - | 178 | 1.24 | 12 stories<br>760 rooms<br>270 sq. ft. |
| 8. | Athens Hilton<br>Warner Burns Toan Lunde Associates<br>Athens, Greece | | | | | | | |
| | 13'-10" | 15'-6" | 29'-6" | 7'-6" x 7'-6" | 5'-6" | 215 | 1.12 | 500 rooms<br>408 sq. ft. |
| 9. | Great Southern Hotel<br>Great Southern Hotels Group<br>Doublin, Ireland | | | | | | | |
| | 14'-0" | 14'-0" | 21'-6" | 6'-4" x 8' | - | 196 | 1 | 200 rooms<br>301 sq. ft. |
| 10. | Hotel Grand Bretagne<br>Athens, Greece | | | | | | | |
| | 11'-6" | 16'-0" | 24' | 7' x 7' | 61 | 184 | 1.4 | 276 sq. ft. |
| 11. | Hotel Schweizer-Hof<br>Berlin Schwebes - Schosszberger<br>Berlin, Germany | | | | | | | |
| | 11'0" | 13'-6" | 21' | 6'-6" x 7' | - | 148.5 | 1.23 | 8 stories<br>440 rooms<br>231 sq. ft. |
| 12. | Alpha Hotel D. F. Grousman<br>Amsterdam, Holland | | | | | | | |
| | 12'-6" | 11'-0" | 16'-6" | 6'-6" x 5'-6" | - | 137.5 | 0.88 | 206 sq. ft. |
| 13. | Hotel Metropol<br>Jakov Sarenac<br>Beograd, Yugoslavia | | | | | | | |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq.Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 13. | 9'-0" | 16' | 25'-6" | 6'-6" x 6'-6" | 3'-3" | 144 | 1.77 | 230 sq. ft. SR |
| | 11'-6" | 16'-6" | 24' | 8' - 5' | 3'-3" | 190 | 1.43 | 276 sq. ft. DR |
| 14. | SAS Royal Hotel<br>Arne Jacobsen<br>Copenhagan, Denmark | | | | | | | |
| | 16'-0" | 15'-0" | 25'-0" | 7' x 8' | - | 150 | 1.5 | 20 stories<br>300 rooms |
| | 14'-0" | 15'-0" | 25'-0" | 7' x 8' | - | 210 | 1.07 | 250 sq. ft. SR<br>350 sq. ft. DR |
| 15. | Int-Continental Auckland Hotel<br>Welton Becket and Associates<br>Auckland, New Zealand | | | | | | | |
| | 12'-6" | 16'-0" | 25'-6" | 5' x 7'-6" | - | 200 | 1.28 | 320 rooms<br>11 stories<br>320 sq. ft. |
| 16. | Hotel President<br>M. Jacquignon<br>Genere, Switzerland | | | | | | | |
| | 12'-0" | 15'-6" | 23' | 5' x 7' | - | 187 | 1.29 | 216 rooms<br>8 stories<br>276 sq. ft. |
| 17. | Duna Inter-continental Hotel<br>Budapest, Hungary | | | | | | | |
| | 12'-6" | 17'-0" | 25'-0" | 6' x 7' | - | 212.5 | 1.36 | 10 stories<br>360 rooms<br>312.5 sq. ft. |
| 18. | Hotel Stadt Berlin | | | | | | | |
| | 12'-0" | 14'-0" | 22' | 6' x 8' | - | 168 | 1.16 | 2000 rooms<br>31 stories<br>264 sq. ft. |
| 19. | Albany Hotel<br>J. A. Roberts<br>Birmingham, England | | | | | | | |
| | 20'-0" | 15'-0" | - | 6' x 6' | - | 300 | 0.75 | DR 288 rooms |
| | 10'-0" | 15'-0" | - | 6' x 6' | - | 150 | 1.5 | SR 9 stories |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq. Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 20. | Brussels Europa Hotel<br>Katz, Vanghan and Partners<br>Brussels, Belgium | | | | | | | 15 stories<br>245 rooms |
| | 13' | 18' | 27'-6" | 7' x 7' | - | 234 | 1.38 | DR 357.5 sq. ft. |
| | 13' | 12'-6' | 22'-6" | 7' x 7' | - | 162.5 | 0.96 | SR 292.5 |
| 21. | Vienna Intercontinental Hotel<br>Vienna, Austria (Carl, Appel) | | | | | | | |
| | 12' | 14'-6" | 22'-6" | 5' x7' | - | 174 | 1.21 | 270.0 sq. ft. |
| 22. | Le Hilton Paris<br>Pierre Dufan<br>Paris, France | | | | | | | |
| | 14' | 12' | 18' | 6' x 6' | - | 168 | 1.17 | 252 sq. ft. |
| 23. | President Hotel<br>Yong and Hsu. Architects<br>Taipei, Taiwan | | | | | | | 317 sq. ft.<br>409 rooms<br>10 stories |
| | 13'-6" | 16'-0" | 23'-6" | 7'-6" x 5' - 6" | - | 216 | 1.19 | |
| 24. | Imperial Hotel<br>Tokyo, Japan | | | | | | | |
| | 13'-6" | 16'-0" | 24'-0" | 8' x 5'-6" | - | 216 | 1.19 | New Building Extension 324 sq. ft. |
| 25. | Hotel Korea<br>Arch: Lee Won Ryo | | | | | | | 7 stories<br>167 rooms<br>276 sq. ft. |
| | 11'-6" | 17'-0" | 24'-0" | 6' x 7' | 3'-3" | 195.5 | 1.48 | |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq.Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 26. | The Duisit Thai<br>Western International Hotel<br>Thailand | | | | | | | |
| | 11'-6" | 17'-0" | 25'-6" | 6'-6" x 8'-6" | - | 195.5 | 1.48 | 22 stories<br>525 rooms<br>293.25 sq. ft. |
| 27. | Hotel Intercontinental<br>Mavo, Urbahnd, Abel Sorensen<br>Colombo, Ceylon | | | | | | | |
| | 12'-6" | 17-0" | 24'-0" | 7' x 7'-6" | - | 212.5 | 1.36 | 8 stories<br>252 rooms<br>300 sq. ft. |
| 28. | Manila Hilton<br>Nanila, Philippines | | | | | | | |
| | 13/-0" | 16'-6" | 24'-6" | 5'-6" x 8'-0" | 2'-0 | 214.5 | 1.27 | 15 stories<br>430 rooms<br>318.5 sq. ft. |
| 29. | Singapore Hilton<br>Singapore | | | | | | | |
| | 13'-0" | 17'-6" | 26'-0" | 6'-6" x 8' | 3'-10" | 227.5 | 1.34 | 18 stories<br>450 rooms<br>338 sq. ft. |
| 30. | Okinawa Hilton<br>Okinawa | | | | | | | |
| | 14'-0" | 18'-6" | 27'-6" | 6' x 8'-6" | 6'-0" | 259 | 1.32 | 385 sq. ft. |
| 31. | Hotel Indonesia<br>Intercontinental Hotel<br>Ojakarta, Indonesia | | | | | | | |
| | 14'-6" | 13'-6" | 21'-0" | 7' x 7'-6" | 3'-3" | 195.75 | 0.93 | 350 rooms<br>7 & 14 stories<br>304.5 sq. ft. |
| 32. | Hotel Inter-Continental<br>Karachi | | | | | | | |
| | 12'-6" | 16'-0" | 23'-0" | 6' x 7' | 5 ' | 200 | 1.28 | 330 rooms<br>10 stories<br>287.5 sq. ft. |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq.Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 33. | Wentworth Hotel<br>S.O.M. and Laurie & Meath<br>Sydney, Australia | | | | | | | |
| | 13'-6" | 16'-0" | 22'-6" | 8' - 6'-6" | - | 216 | 1.19 | 462 rooms<br>20 stories<br>303.75 sq. ft. |
| 34. | Sydney Hilton<br>Australia, Sydney | | | | | | | |
| | 11' | 16'-6" | 24'-6" | 7'-9" x 5'-9" | - | 181.5 | 1.5 | 269.5 sq. ft. |
| 35. | Hotel Teheran<br>Haener & Wiederkehr, Zug<br>Teheran, Iran | | | | | | | |
| | 10' | 15' | 21'-6" | 6' x 6'-6" | - | 150 | 1.5 | 21 stories<br>215 sq. ft. |
| 36. | Kuwait Hilton<br>Kuwait | | | | | | | |
| | 14' | 17'-6" | 28' | 9'-6" x 6' | 5'-0" | 245 | 1.25 | 250 rooms<br>392 sq. ft. |
| 37. | Tel aviv Hilton<br>Tel aviv, Israel | | | | | | | |
| | 14' | 18' | 24'-6" | 5'-6" x 7' | 6'-0" | 252 | 1.29 | 20 stories<br>428 rooms<br>343 sq. ft. |
| 38. | Jerusalem Hilton<br>Jerusalem, Israel | | | | | | | |
| | 13'-2" | 17' | 24' | 7'-4" x 5'-8" | - | 220 sq. ft. | 1.29 | 314.4 sq. ft. |
| 39. | Guain Hilton | | | | | | | |
| | 12'-5" | 15'-3" | 24' | 8'-3" x 5'-6" | - | 190 | 1.25 | 300 sq. ft. |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq.Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 40. | Al Ain Hilton | | | | | | | |
| | 11'-8" | 16'-2" | 24' | - | - | 188.4 | 1.4 | 278.4 sq. ft. |
| 41. | Abu Dhabi Hilton | | | | | | | |
| | 12'-6" | 17'-5" | 26'-4" | 5'-6" x 9' | - | 217.5 | 1.4 | 328.75 sq. ft. |
| 42. | Casa Montego Hotel<br>Ballard, Todd and Snibbe<br>Montego Bay, Jamica | | | | | | | |
| | 13'-0" | 14'-0" | 22' | 5' x 8' | 7' | 182 | (1.08)<br>0.93 | 286 sq. ft. |
| 43. | El Panama Hotel<br>Edward D. Stone, Karl Holzinger<br>S. America | | | | | | | |
| | 12'-0" | 15'-0" | 19'-6" | 5'-4" x 7'-6" | 7' | 180 | 1.25 | 271 rooms<br>234 sq. ft. |
| 44. | Caribe Hilton<br>Warner Burns Toan Lunde Architects<br>San Juan, Puerto Rico | | | | | | | |
| | 14'-0" | 15'-6" | 24'-6" | 5' x 8'-6" | 3'-6" | 217 | 1.11 | 474 rooms<br>343 sq. ft. |
| 45. | Managua Intercontinental<br>Managua Nicaraqua | | | | | | | |
| | 12'-0" | 14'-6" | 22' | 6'-4" x 5'-10" | - | 174 | 1.21 | SR 264 sq. ft. |
| | 12'0" | 15'-6" | 23' | 5' x 7' | - | 186 | 1.29 | DR 276 sq. ft. |
| 46. | Trinidad Hilton<br>Trinidad, West Indies | | | | | | | |
| | 13'-0" | 15'-3" | 26'-4" | 6' - 7'4" | - | 197.6 | 1.15 | 342 sq. ft. |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq. Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 47. | Barbados Hilton<br>Warner Burns Toan Lunde Architects<br>Barbados | | | | | | | |
| | 13'-6" | 16'-0" | 24'-6" | 5'-6" x 8' | 4'-6" | 216 | 1.19 | 330.7 sq. ft. |
| 48 | El ponce Intercontinental Hotel<br>W. B. Tabler<br>Ponce, Puerto Rico | | | | | | | |
| | 12'-6" | 15'-0" | 22'-6" | 5' x 7' | 6' radius | 187.5 | 1.20 | 281.25 sq. ft.<br>170 rooms<br>5 stories |
| 49. | The Carlton Beach Hotel<br>W. B. Tabler | | | | | | | |
| | 14' | 15'-6" | 22'-0" | 5' x 7' | 5' | 217 | 1.11 | 308 sq. ft.<br>2 and 3 stories<br>204 rooms |
| 50. | Virgin Isle Hilton<br>Virgin Isles | | | | | | | |
| | 14' | 17' | 23' | 6' x 8' | 5' | 238 | 1.21 | 322 sq. ft. |
| 51. | Hotel the Princess<br>C. K. Loven N. W. Hutchinson & Son<br>Pembroke Bermuda | | | | | | | |
| | 14' | 18' | 26' | 5' x 7' | 8' | 252 | 1.29 | 7 & 8 stories<br>470 rooms<br>364 sq. ft. |
| 52. | Addis Ababa Hilton<br>Warner Bursn, Toan, Lunde Architects<br>Addis Ababa Ethiopia | | | | | | | |
| | 12'-8" | 15'-10" | 25'-10" | 10' x 5'-6" | 3' | 190.25 | 1.25 | 12 stories<br>250 rooms<br>312 sq. ft. |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq.Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 53. | Nairobi Intercontinental Hotel<br>Tazania Uganda | | | | | | | |
| | 13' | 16' | 24' | 7' - 6' | 5' | 208 | 1.23 | 312 sq. ft.<br>210 rooms<br>8 stories |
| 54. | Hotel in Lagos Victoria Island<br>Architects Co-partnership, London<br>Nigeria | | | | | | | |
| | 12' | 14' | 22' | 5' x 9' | - | 168 | 1.17 | 100 rooms<br>264 sq. ft. |
| 55. | Madagascar Hilton<br>Malagasy Republic | | | | | | | |
| | 12'6" | 14'-6: | 23' | 6' x 8' | - | 181.25 | 1.16 | 287.5 sq. ft.<br>200 rooms |
| 56. | Nairobi Hilton,<br>Nairobi, Kenya | | | | | | | |
| | 12'-6" | 13'-6" | 22'-6" | 5 'x 9' | 5' | 168.75 | 1.08 | 17 stories<br>281.25 sq. ft.<br>274 rooms |
| 57. | Nile Hilton<br>Egypt | | | | | | | |
| | 17'-6" | 14'-0" | 24'-0" | 5'-4" x 10' | - | 245 | 0.8 | 336 sq. ft.<br>400 rooms<br>11 stories |
| 58. | Rabat Hilton<br>Rabat, Morocco | | | | | | | |
| | 14' | 16'-6" | 27'-6" | 7'-6" x 10'-6" | 5' | 231 | 1.18 | 7 stories<br>259 rooms<br>385 sq. ft. |
| 59. | Havanna Hilton<br>Welton Becket & Associates<br>Havanna, Cuba | | | | | | | |
| | 15'-0" | 14'-0" | 25'-0" | 5' x 9' | 7' | 210 | 1.06 | 375 sq. ft. |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq. Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 60. | M/S Isis and M/S Osiris Floating Hotels | | | | | | | |
| | 12'-10" | 14'-6" | 20'-10" | 5'-6" x 6'-4" | 5' | 186.5 | 1,13 | 141 rooms 281 sq. ft. |
| 61 | Hotel at Logos Dennis E. Pugh W. Africa | | | | | | | |
| | 13" | 14'-6" | 24' | 5' x 9' | 7' | 188.5 | 0.9 | 312 sq. ft. |
| 62. | CN Nova Scotian Hotel | | | | | | | |
| | 11' | 15' | 23' | 5' x 7' | - | 165 | 1,36 | 14 stories 316 rooms 253 sq. ft. |
| 63. | Holiday Inn Incorp. H.I.I. Interior Design Dept. | | | | | | | |
| | 12'-8" | 18' | 26'-8" | 5' x 7'-6" | 1'-6" | 228.6 | 1,41 | Stan. Room Plan 340.5 sq. ft. |
| 64. | Queen Elizabeth Hotel Montreal, Quebec, Canada | | | | | | | |
| | 12' | 14'-6" | 24' | - | - | 174 | 1.21 | 288 sq. ft. |
| | 12' | 11' | 20' | - | - | 132 | 0.92 | 240 sq. ft. |
| 65. | Seaway Hotel A. Elkefn & R.W. Becksted Toronto, Canada | | | | | | | |
| | 13' | 18' | 25' | 5' x 7' | 5' | 234 | 1.5 | 325 sq. ft. |
| 66. | The Four Seasons Sheraton Toronto, Canada | | | | | | | |
| | 13'-6" | 19'-6" | 26'-6" | 8' x 7'-6" | - | 263.25 | 1,44 | 357,75 400 rooms |

| No. | A | B | C | Bathroom E x F | Width of Balcony G | Bedroom Area Sq.Ft | Bedroom Ratio B/A | Remarks |
|---|---|---|---|---|---|---|---|---|
| 67. | Hotel Presidente<br>Guiller and Defeo<br>Buenos Aires, Argentina | | | | | | | |
| | 10' | 20' | 28' | 5' x 8' | - | 200 | 2 | 280 sq. ft.<br>378 rooms |
| 68. | Calgary Inn<br>Alberta, Canada | | | | | | | |
| | 12' | 15'-6" | 24' | 6' x 8' | - | 186 | 1.29 | 288 sq. ft.<br>430 rooms |
| 69. | Century Plaza<br>California, U.S.A. | | | | | | | |
| | 14' | 16' | 26'-6" | 5' x 8'-6" | 61 | 224 | 1.14 | 371 sq. ft.<br>800 rooms |
| 70. | Houston Oaks<br>Texas, U.S.A. | | | | | | | |
| | 15' | 19' | 29' | 6' x 9'-6" | 31 | 245 | 1.27 | 435 sq. ft.<br>400 rooms |
| 71. | Texas, U.S.A.<br>Pittsburgh, Hilton<br>W. B. Tabler | | | | | | | |
| | 11'-10" | 15' | 23' | 5' x 6' - 10" | - | 178.5 | 1.26 | 272 sq. ft. |

Based on the preceding lists, the summary of the research is shown in charts 1 to 5.

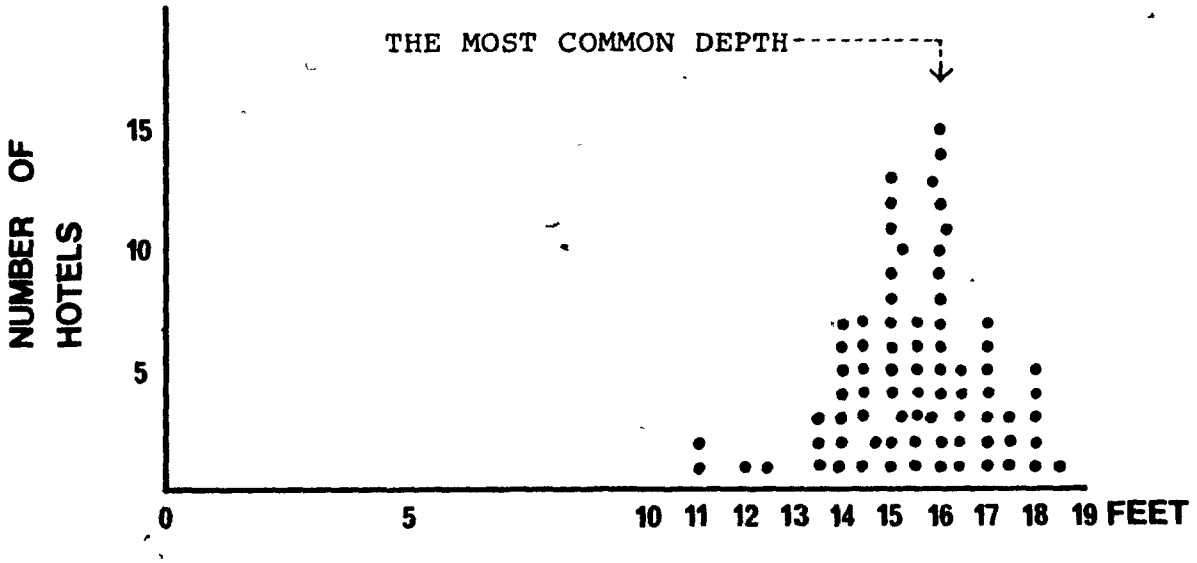



Chart 1 **A = DEPTH OF THE BEDROOM**

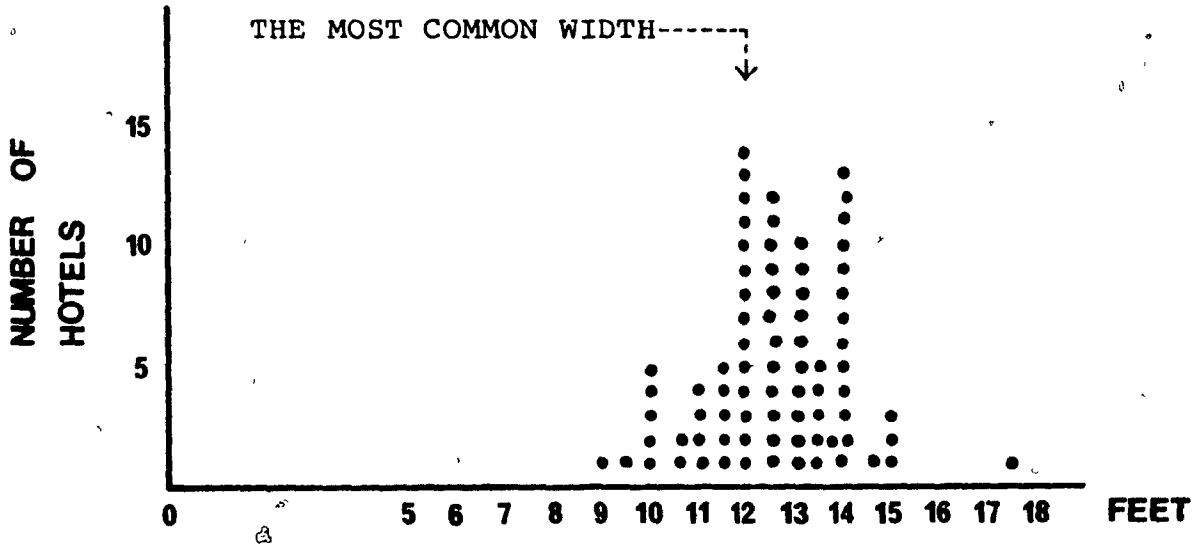



Chart 2 **B = WIDTH OF THE BEDROOM**

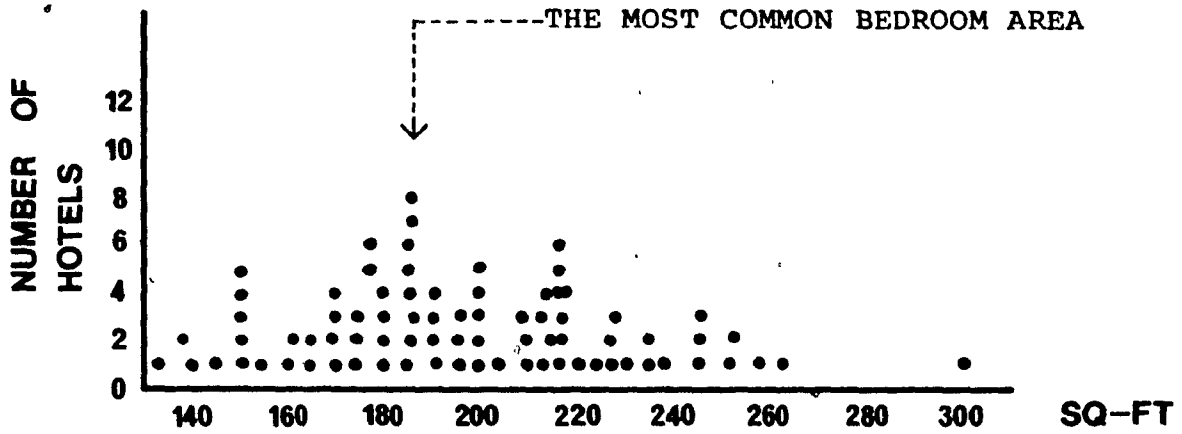



Chart 3 **AREA = A x B**

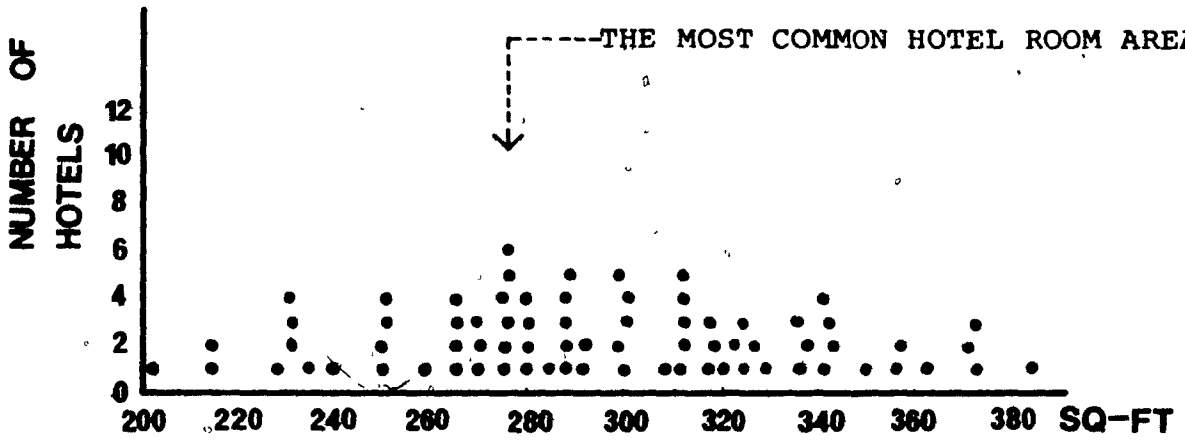



Chart 4 **AREA = A x C**

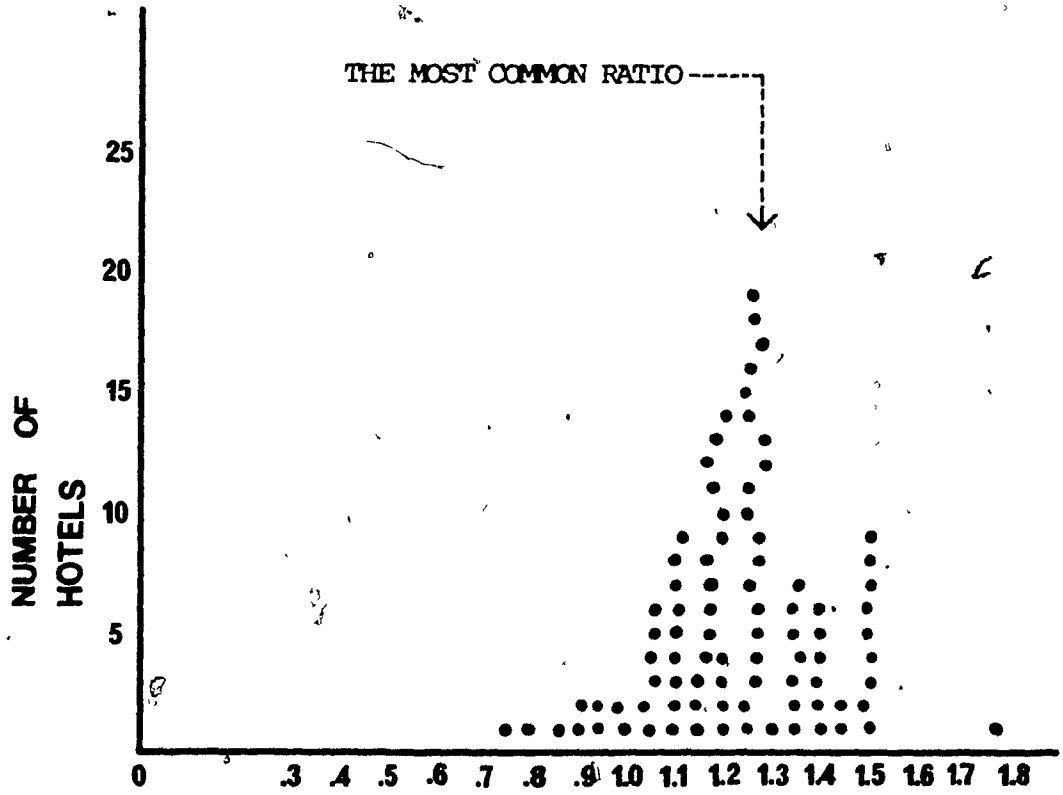

THE MOST COMMON RATIO
NUMBER OF HOTELS
25
20
15
10
5
0
.3 .4 .5 .6 .7 .8 .9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8
RATIO = B/A

Chart 5

## SUMMARY

In order to achieve effective design, architects or designers are frequently "handicapped" because of the time required to gather sufficient data on furniture and space requirements. To eliminate this "handicap", special data for the design of the hotel room(information on room planning in Chapter I and Chapter II; floor planning in Chapter III, and presentation compiled in the International Survey in Chapter IV) have been examined. This examination has resulted in the development of a suitable proportion of hotel room sizes that is reasonably reliable for subsequent users. Once the unit product is established the standard has been set, and this ratio can always remain for further use.

It would be presumptuous for one to predict what exact development will take place in the future. There are possibilities that development of hotels will continue, and if the functional requirements of hotel rooms remain as they are now, the use of the dimension ratio will also continue. Because men's habits, activities, instincts and resultant requirements are relatively stable factors, the ratio (width/depth = 1.15-1.3) discovered in this study will not vary.

It is hoped that the methodology employed in this study can be employed for further design use and applied to more uses.

APPENDIX A

List of names of hotel rooms named by world hoteliers:

1. Single
2. Standard
3. Studio
4. Superior
5. Twin
6. Double
7. Suite
8. Junior Suite
9. Double-Double
10. Double Suite
11. Combination
12. Two room Suite
13. Interconnecting Suite
14. Executive Suite
15. Penthouse Suite
16. Semi-Suite
17. Royal Suite
18. Imperial Suite
19. Presidential Suite
20. Deluxe Suite
21. Superior Deluxe
22. Deluxe
23. Superior Deluxe Suite
24. Semi-Double
25. Triple Room
26. Two Room Flat
27. Three Room Flat
28. Dual Purpose
29. Apartment
30. Japanese Style
31. Ocean View Suite
32. Cabanas
33. Parlour
34. Sample Room
35. Duplex
36. Efficiency
37. Lanai
38. Hospitality
39. Hospitality Suite

# ROOM ACCOMMODATIONS

| | |
|---|---|
| **Single:** | A room to be occupied by one person. |
| **Double:** | A room with one large bed for two persons. |
| **Twin Double:** | A room with two double beds for two, three or four persons; sometimes called a "family room" or double-double. |
| **Twin:** | A room with two single beds for two persons. (Beds can be adjoining with one common head-board). |
| **Studio:** | A one-room parlor set-up having one or two couches that convert to a bed. (Sometimes called an executive room). |
| **Parlor:** | A living or sitting room not used as a bedroom. (Called a "salon" in some parts of Europe). |
| **Junior Suite:** | A large room with a partition separating the bedroom furnishings from the sitting area. |
| **Cabana:** | A room adjacent to pool area, with or without sleeping facilities, usually separate from hotel's main building. |
| **Duplex:** | A two-story suite (parlor and bedroom(s)) connected by a stairway. |
| **Efficiency:** | An accommodation containing some type of kitchen facility. |
| **Suite:** | A parlor connected to one or more bedrooms. When requesting a suite, always designate the number of bedrooms needed. |
| **Lanai:** | A room overlooking water or a garden with a balcony or patio. (Resort hotels mainly). |
| **Sample:** | A display room for showing merchandise; with or without sleeping facilities. |
| **Hospitality:** | A room used for entertaining (cocktail party, etc.). Usually a function room or parlor. |
| **Hospitality Suite:** | A parlor with connecting bedroom(s) to be used for entertaining. |

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