

PUBLIC AREAS OF CRUISE SHIPS

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ABSTRACT

The modern cruise ships have become a destination on their own as a result of the project's design and not of the charm and history. The ship is designed to arouse desire and interest and to be discovered by the customer day after day. The goal is achieved by building fantastic realities in the interior architecture and design, improved by continuous and renewable sources of attraction, curiosity and fun. Within that system, it is the public areas that play the role of a pole of attraction and entertainment for the passenger and determine the overall standard of the ship. They are places of entertainment, gaming, socializing and last but not least, are a source of income for the shipping companies. The public areas are what unite cruising people, heterogeneous by age, social background and place of origin. The large surface area is destined to be public areas that allow to the design places highly diversified, responsive to every need of the tourist. Casinos, theme restaurants, shopping center, rock climbing, coiffeur ... constitute the "facilities" on board. It is precisely the attractions that have made the success of the cruise ship, once identified as travel for elderly spouses, today is open to families and groups of friends. The holiday is structured around the activities and public areas that underlie it. The entire day is punctuated by numerous moments of food in bars and restaurants. Relaxation is guaranteed by the reading rooms, cinema and spa. It is thus clear that the main attraction of the cruise is the set of services offered and not the destination of the ship.

The paper analyzes the public areas on the latest cruise ships, defining goals and their evolution, by associating the images and description of illustrative diagrams of the distribution planning.

1. INTRODUCTION: THE URBANISM OF THE SHIP

The urban structure of the ship, passed the time of transition between the liners and the modern cruise ships, it would seem defined and mature.

Upwards and towards the bow scanning volumes identifies private areas and public places, transit areas and living areas, connected by corridors and stairs groups, to form a flexible but concluded "urban fabric".

Designers are thus to operate within a three-dimensional chessboard where the boundaries and regulatory limits are clear and easy to comply with.

Modern cruise ships divide their habitable volume vertically into three large zones with differing purposes: the public areas immediately above the waterline occupy approximately three decks, the cabin areas above are distributed over 4/7 decks and then the other public areas are located on the remaining 2/3 decks. This distribution, which places cabins in the highest part of the superstructure, makes it possible to create private balconies and panoramic views; additionally, the separation of the communal space into macro areas permits diversification of public activities on board. The areas located in the lower part include the entrance atrium, the restaurants, the theatre, the casino and other activities of a recreational kind. The upper decks, including the outside areas, are used for treatment and physical wellbeing facilities, such as the

fitness center, swimming pools and the solarium. The bar and the other refreshment facilities, since they interact with all on-board activities, are located in both macro areas. Vertical routes are via stairs and lifts rising from the first public deck and ending on the highest deck. They divide the ship into 4-6 sectors (fire zones), defining the stern, bow and central areas; other groups of stairs, lifts and goods lifts that are used only by onboard personnel, may connect only some of the decks and do not determine further "fire zones". Horizontal crossing routes, generally two for each deck and parallel to the keel line, divide the deck surface into three parts and may have branches (cabin decks) or converge into a single route. The external parts of the corridors, towards the ship's sides, are always used for public purposes, while the central part of the decks may be used for technological equipment (conditioners, piping, stowage, etc.). All horizontal routes end at a vertical route; the intersection has a meeting point called "muster station" with portholes and exits towards the sides of the ship. Horizontal routes used by passengers and service corridors are separate and rarely join to form a single passageway, except for the routes along the cabin decks and the emergency escape routes. External walkways (promenade decks) are increasingly rare since the sides of the superstructure are used to create private balconies for the cabins; the lifeboat deck remains with galleries for access to the boats. The routes divide public areas into areas identified according to how they are entered or crossed; they can thus be divided into enclosed facilities where passengers remain for some time, and transit areas. The first are communal facilities with well-defined functions where passengers intentionally enter to take part in or watch activities. They are places that can be closed to entry without limiting the enjoyment of surrounding facilities.

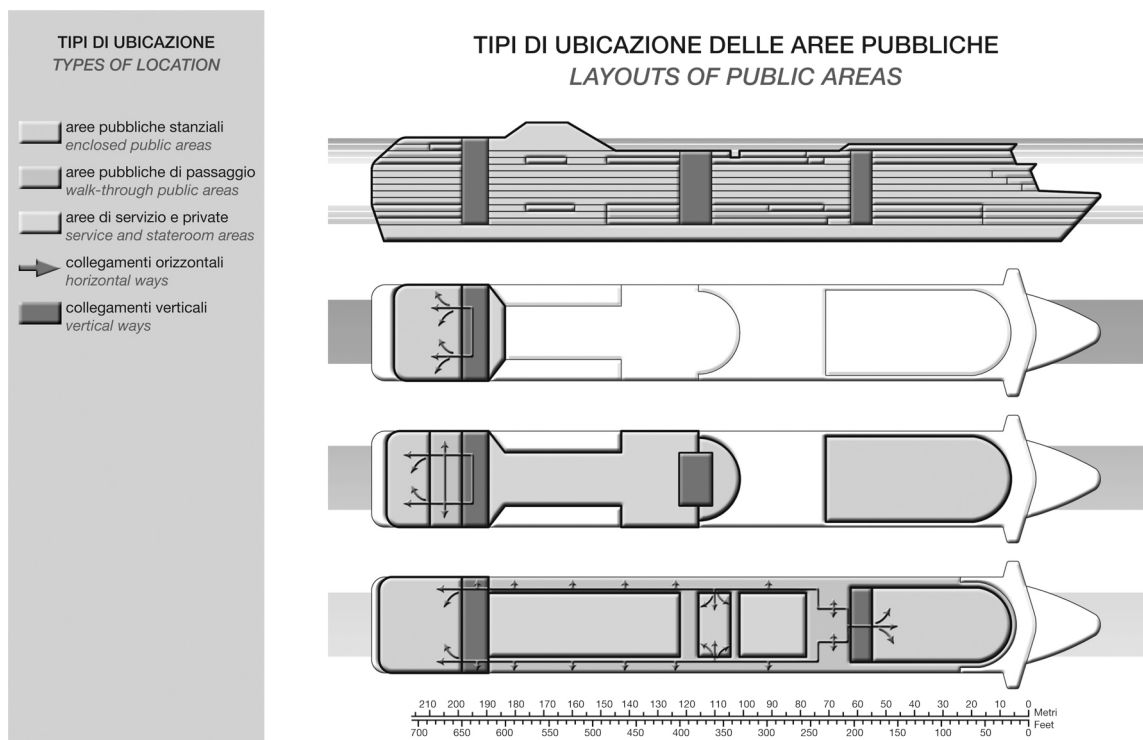


Figure 1. Layouts of Public Areas

Normally they have one or more accesses from the muster stations close to vertical routes. Such facilities are located between two fire zones, occupying the whole width of the ship and may occupy more than one deck. They are generally placed at the stern or the bow creating the last large environment beyond which there are no more public areas to be reached. Typical examples are the restaurant or the onboard theater. Other such areas are present on board; they are smaller and are located to the side of the horizontal routes. Their closure, as for the facilities previously described, does not alter the flow of passengers who remain free either to enter or to continue elsewhere (shops, offices, etc.).

Transit areas are places which feature one or more routes for crossing them. Passengers going through them may decide on impulse to stop and do something there, or continue elsewhere. They are facilities that stretch the whole width of the ship and lengthwise may occupy the space between two fire zones. It is not possible either to close such areas or prohibit passengers from crossing them, but only to limit stopping or close some activities that take place there. These composite areas are generally used as atriums, bars and casinos. Contrary to cabins, which are almost always totally prefabricated and inserted in order within the structural frame, public areas do not adapt well to the very regular division of "naval architecture"; however, since their spectacular appearance is of strategic importance for the ship-owner companies, the construction is often changed to free the spaces from structures and obstructions to permit the creation of atriums, restaurants and galleries with a strong visual impact.

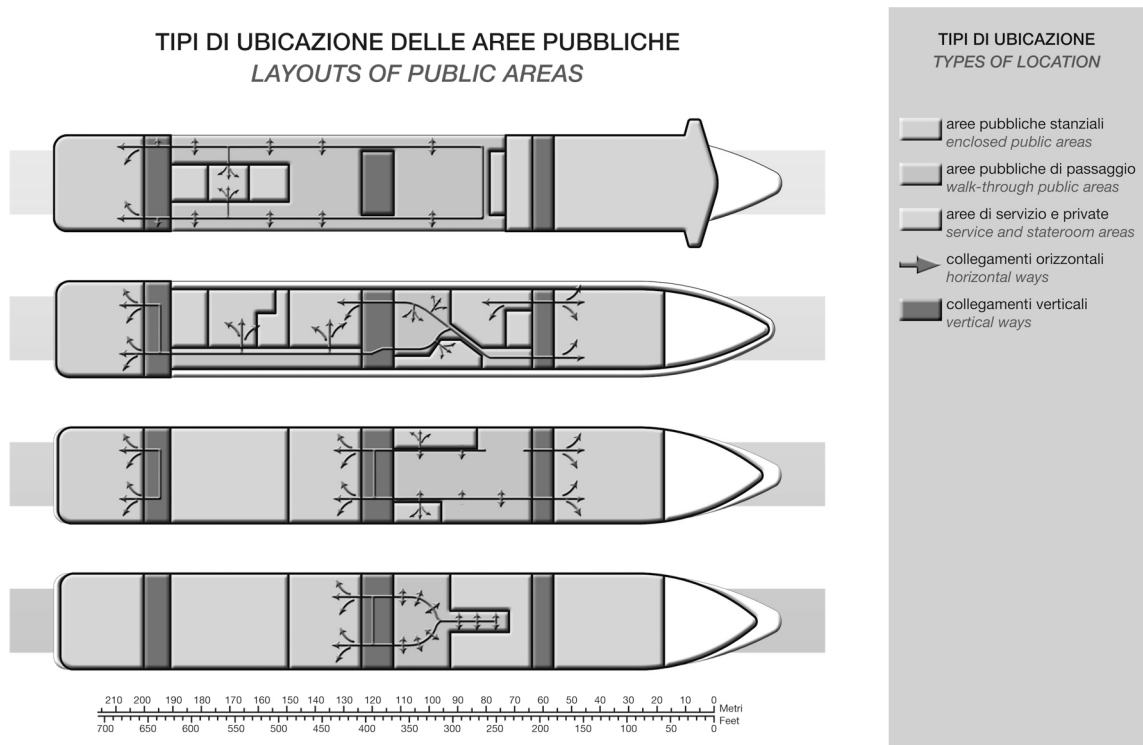


Figure 2. Layouts of Public Areas

But the clientele changes and the requests of the owner move, decreasing the continuous dimensional adaptation and urbanistic planning of the ship.

The distribution system is therefore constantly questioned. If a time, the idea of the cruise was the collective embodiment of calm and rest, today the stimulus stateroom is to engage the passenger in as many activities as possible.

To move the passenger on the ship means to make him/her active and participatory, in other words inclined to spend. Among the tasks of the urban design of the ship is to stimulate this process without making it stuffy. Environments on board must intrigue the cruiser to the "discovery" of the ship. Each room which attends must not become a point of arrival but a new starting point. The visitor must walk the public rooms of the sea giant (the ship) exactly as he/she walks through the center of a city; every corner, every view are stimuli to a new discovery, toward a new goal, to a "trip" in the journey.

2. FROM THE ATRIUM TO THE PLACES OF WALKING AND SHOPPING

The atrium inside a cruise ship plays a fundamental role. It is the main distribution hub around which communal life on the cruise is organized, it serves the primary function of the place where flows of passengers are checked and given directions during boarding and disembarking operations and also, since it is the first public area that passengers encounter, serves as the

showplace for the ship-owning company. The atrium is the “square” from which all the “streets” leading to the public areas and private accommodation branch off and onto which the offices, the reception and a series of entertainment and service facilities open. On modern cruise ships, the entrance hall is defined as a public transit area since it is no longer contained in a circumscribed environment but expands with various interpenetrating spaces and is characterized by backdrops and decor reminiscent of New York skyscrapers. Indeed, atriums often rise through several decks where public and entertainment areas such as bars, galleries and shops facing onto the atrium itself are located; the various premises, even though they are on different levels, physically and visually communicate with each other. Since this creates a visual connection between several decks, the height of the atrium is also emphasized by stairways and panoramic lifts, thus becoming a setting which, with its elaborate decor, welcomes passengers not only as spectators but also as protagonists of a unique experience for the whole duration of the voyage.

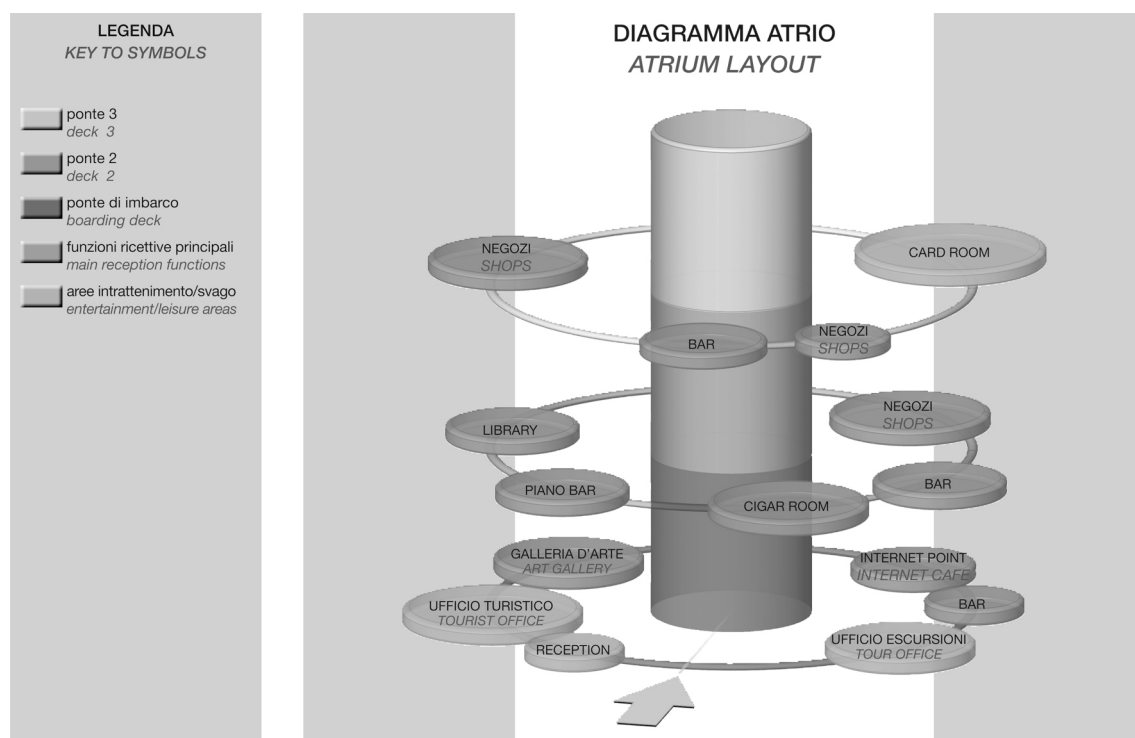


Figure 3. Atrium layout

From the atrium it is possible to access the shops through the public paths and walking areas. Shops are part of the range of services offered to passengers. On board cruise ships the type of shop most frequently found are those in which sales are direct and assisted by personnel. Shops belong to the category of personal choice activities like bookshops, casinos, amusement arcades, etc. and occupy areas defined as “small-sized enclosed facilities” since for obvious reasons they may be closed without prejudicing use of the surrounding area. Compared to the past, shops are located on more than one deck and enjoy greater freedom of composition tending to recreate promenades for strolling and shopping. Normally they are located along the ship’s sides with the windows looking onto the passenger routes along the length of the ship.

3. CATERING FROM THE "À LA CARTE MENU" TO FAST FOOD

The catering service, right from the first liners, is the strongest point of cruises. Onboard cuisine is an art in which the personnel expresses their creativity and professional skill to ensure that passengers enjoy meal times as true gourmet experiences that are never repetitive. Each evening, the restaurant thus becomes an authentic place of entertainment

where passengers enter with the curiosity of eating their dinner while at the same time enjoying the “extravaganza” of the courses.

On the ships you can eat at any time of the day or night in restaurants or other eateries or in your own cabin. The service is completed by ethnic restaurants and food tasting menus for the most demanding palates. The current trend is to encourage passengers to try all the different restaurants and eateries which are not part of all-inclusive packages. The number of restaurants on board varies from a minimum of four up to as many as ten.

In addition, the size of the areas set aside for catering and service facilities are gauged according to the average length of the cruise, the target market and the company’s brand. On current Panamax and Superpanamax ships, around 25% of the space set aside as public areas is occupied by restaurants.

Onboard restaurants are classified as main, à la carte and auxiliary services. Passengers have free access to all of them, even though this may be diversified with regard to some aspects: main restaurants generally have more seating space since there is no need to book a table.

A buffet service is offered at breakfast and lunch, while table service is provided at dinner.

Passengers wishing to eat in à la carte restaurants, where the seating space is limited, must book a table; this can be done each day on board or by the travel agent before boarding the ship.

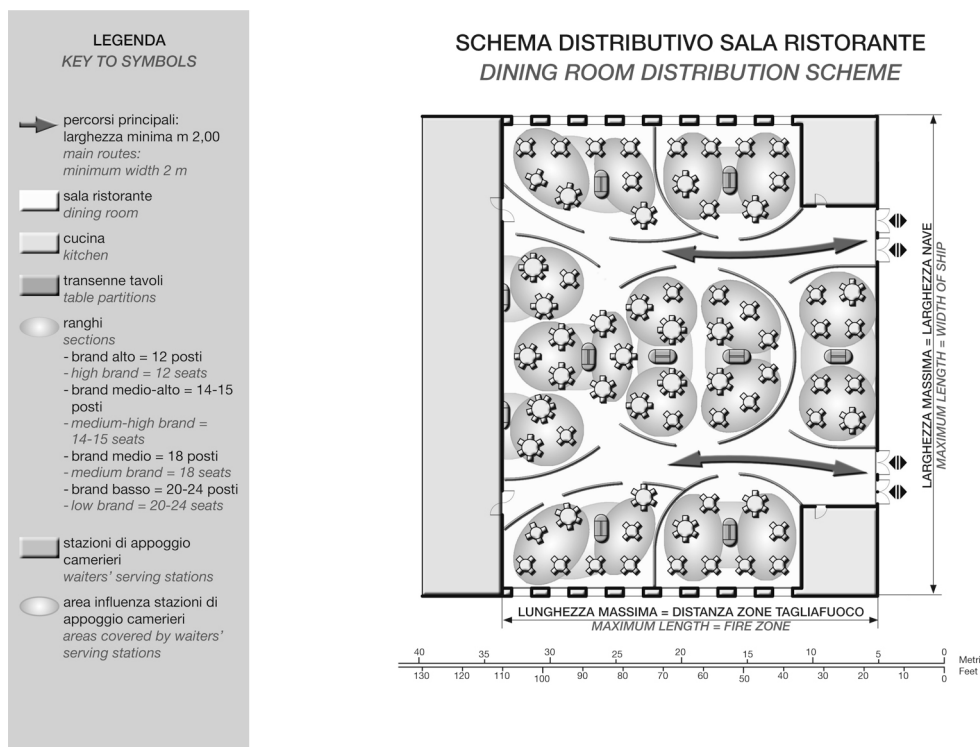


Figure 4. Dining room distribution scheme

Lastly, auxiliary restaurants are always accessible, do not require bookings, and almost always are open all day prevalently with self-service facilities and international cuisine.

The main restaurants are classed as public enclosed areas and normally occupy the last part of the deck beyond which there are no other public areas to be reached; in the case of restaurants at the center of the ship, the galleys are located behind them.

Once tables in the dining room were arranged in diagonal rows separated by one or more gangways; this kind of layout, while functional, now brings to mind austere and anonymous canteens, proving to be particularly uninspired and rigid and therefore no longer suited to modern constructions.

The most recent layouts are divided into groups of tables commonly known as “sections” which include tables and serving stations used by the waiting staff; the edges of the sections are marked by the main transit routes and by movable screens to deaden the noise.

Main transit routes through the restaurant must be clearly visible from the tables to permit a view of the spectacular parades of the waiting staff presenting the courses before they are served.

The design of the main restaurants normally reflects the guidelines for design of the whole ship. Large, well-lit dining rooms, featuring careful design of the ceilings tending to make the room loftier; walls decorated and adorned by works of art, with wall-to-wall carpeting personalized with patterns and colors marking routes; waiting areas in polychrome marble or wood, are recurring elements in all restaurants.

Where possible, the dining room may be on more than one level, with terraces and balconies bordering squares below with complex architectural shapes.

The fundamental elements when composing a restaurant dining room are the seats, since they are the design objects that can be observed up close and touched. Their most visible part is the rear of the backrest, precisely because the chairs are normally placed with the seat hidden under the table.

To complete the catering system on board the cruise ship, there are also bars.

The primary function of bars is to provide a place where drinks and food such as pastries, sandwiches, ice-creams, etc. can be served and consumed.

The bar service belongs to the personal choice category of activities, which passengers are free to make use of, paying for what they consume directly at the bar or at the end of the cruise.

Of the public areas found on board, bars are those most frequently found; their number is determined as a function of the size and standard of the ship, and normally varies between six and fifteen.

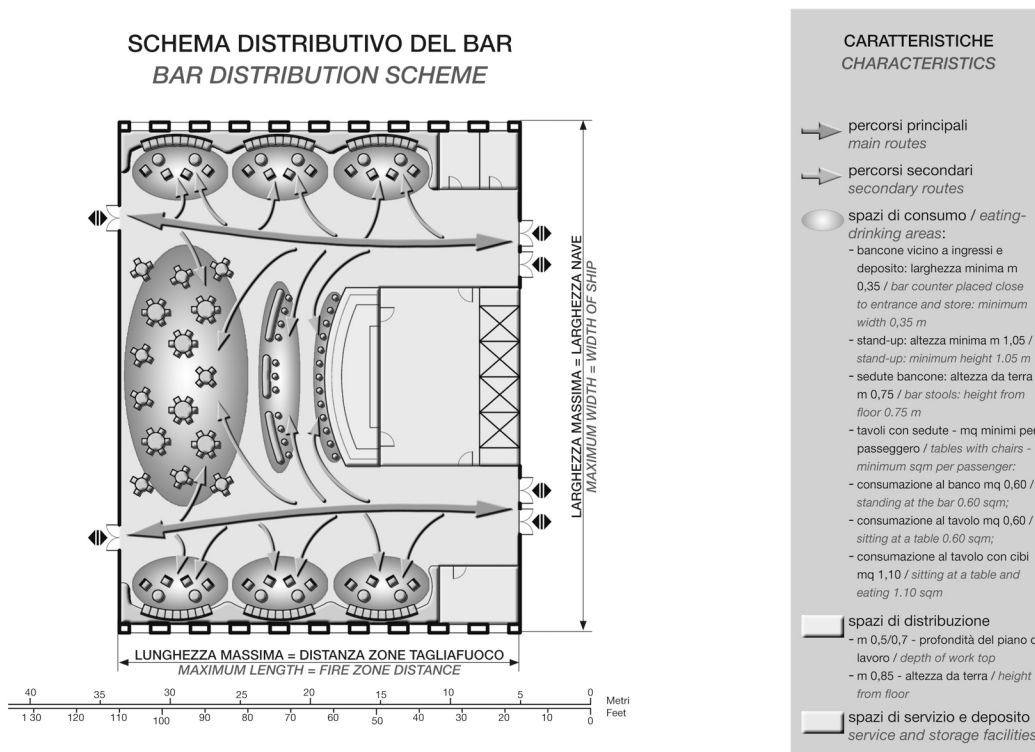


Figure 5. Bar distribution scheme

Bar locations are diversified. Generally they are strategically positioned on decks used as public areas, close to or inside other entertainment areas such as casinos, show lounges and sun decks. A typical location is at the entrance atrium with the precise idea of welcoming passengers right from the moment that they board the ship; normally this bar has a piano for musical entertainment.

The bars offered may be general or specialized, forming “theme bars”. On board you may find a “wine bar” where quality wines, champagnes and sparkling wines may be tasted, a “cognac bar” and a “cigar bar” where you can discover selections of liqueurs or cigars, as well as a “wellness

bar” specialized in fruit or vegetable cocktails. Other types of theme bars are distinguished by the service offered, like the “Internet café”, or by the possibility of eating a special kind of food as in the “Sushi bar” on the MSC Musica (2006). The latter generate that special kind of facility which is part bar part ethnic restaurant where the service prevalently consists of food and drinks served at the counter to be eaten and drunk at informal tables without the aid of waiters.

Another kind of bar are those associated with other onboard activities such as those in shopping centers, restaurants, theaters and wellness centers.

The last type of bar found on board cruise ships are those which are part and parcel of the activities where they are located. This category includes those in the casino, lounge and solarium, which are parts of the ship that can always be used by passengers, whether they are walking through or stopping there, for leisure activities or simply as areas for conversation or relaxation. These bars are also used to support events organized each week by the entertainment staff, such as midnight spaghetti meals, treasure hunts, volley ball tournaments, etc. Unlike the bars associated with other activities, these bars are always open.

The bars may fall into the categories of “enclosed bars” and “transit bars” depending upon where they are located with respect to the routes crossing the ship. The first are on the edges of the routes, and therefore are used by passengers with the precise intention of stopping there to order a drink or a snack. They are enclosed within bulkheads and are furnished with tables and sofas. Normally they have small stages for live music, cabaret shows and dance floors.

Those in the second category are distinguished by the fact that they are crossed by the transit routes through the ship.

Passengers arrive in these bars while walking around the ship, just as workers go to the café near their office or as shoppers to a bar in a town shopping center, and drink a beverage in an informal way, often standing at the counter, and then continue on their way to their destination.

Bars on ships, right from their remotest origins, are places where designers have tested new settings, often going against the trend of the general style of the ship, precisely because of their apparently marginal role secondary to that of the main activities. Their composition consists of “dressing the technical machinery” of the counter by associating furnishing elements that are pre-established, or presumed to be so, such as seating and tables. This operation, while apparently simple, may lead to experimental results of considerable interest, especially when integrating mass-produced products with custom-designed elements that unite the whole.

4. THE PLACES FOR ENTERTAINMENT AND ENTERTAINMENT ON BOARD

The activities for the entertainment of passengers that can be found on board modern cruise ships are varied and exuberant. At first glance, as already mentioned, these activities are located essentially in two main locations: on the highest decks are placed outdoor activities, the solarium and fitness centers, while roughly at the waterline are placed indoors activities whether they are performed by day or night.

Cruise ships, according to the expectations and needs of the present market, cannot avoid providing at least one onboard public space for theater activities. A house devoted to stage performances such as musical and variety shows, but equally useful when organizing conferences and meetings to supply information to passengers.

Usually, cruise vessels have only one theater on board, located forward or aft of the ship. However, there are also cases of ships with a second theater, and in such cases, the two houses are positioned respectively at the forward and aft ends of the ship

There are also cases in which the theatre is placed on the lower decks at the centre of the ship. An example is the Crystal Serenity (2003), in which the theater is located in the main body of the ship, facing perpendicular to the keel and enclosed by bulwarks bordering the transit routes along the ship and by the service areas.

Excluding ships with a very high brand level, as in the previous example where the number of passengers is limited in proportion to the space on board, the theater must have a capacity of between one third and half of the total passengers, so that they can be divided between the restaurant and the theater during the dinner period, organized into two sittings.

The theater usually has a well-defined layout: stalls, one or more balconies, the stage, the under-stage, and connecting routes and service facilities.

The total volume is divided between seating and service areas just as it is in theaters on dry land.

Besides the theater many entertainment areas complete the facilities offered on board by the ship-owning companies which are constantly alert to market trends in order to be able to satisfy even the most demanding of customers. The long list includes typical areas such as the children's house, the casino, show lounge, the discotheque and others that are decidedly more contemporary like internet cafés and multimedia facilities.

The heart of the money machine, the casino is an entertainment facility that is always provided on board cruise ships where passengers, even those who are not inveterate gamblers, are lured to try their luck. For most cruise passengers, dropping in at the casino means gambling a little before or after the theatre show or while waiting to go into dinner. For others, regular visitors to gambling halls, it may become the reason for taking a cruise.

Casinos are classed as public transit areas and are usually positioned in front of a large enclosed public saloon. Besides serving as a gaming room, the casino is used as a hall at times when there is a large crowd of passengers, such as when there is a changeover in sittings in the dining room or during boarding and landing operations. For example, on the Crown Princess the casino is located between the theater and the shopping gallery; the same layout can be found on the MSC Musica; on the Costa Magica on the contrary it is positioned between the transit bar and the show lounge. A bar may be located inside it, operating during the hours that the casino is open. The casino operates prevalently during the evening and only while the ship is at sea, from 18:30 until late at night (01:00 hrs.).

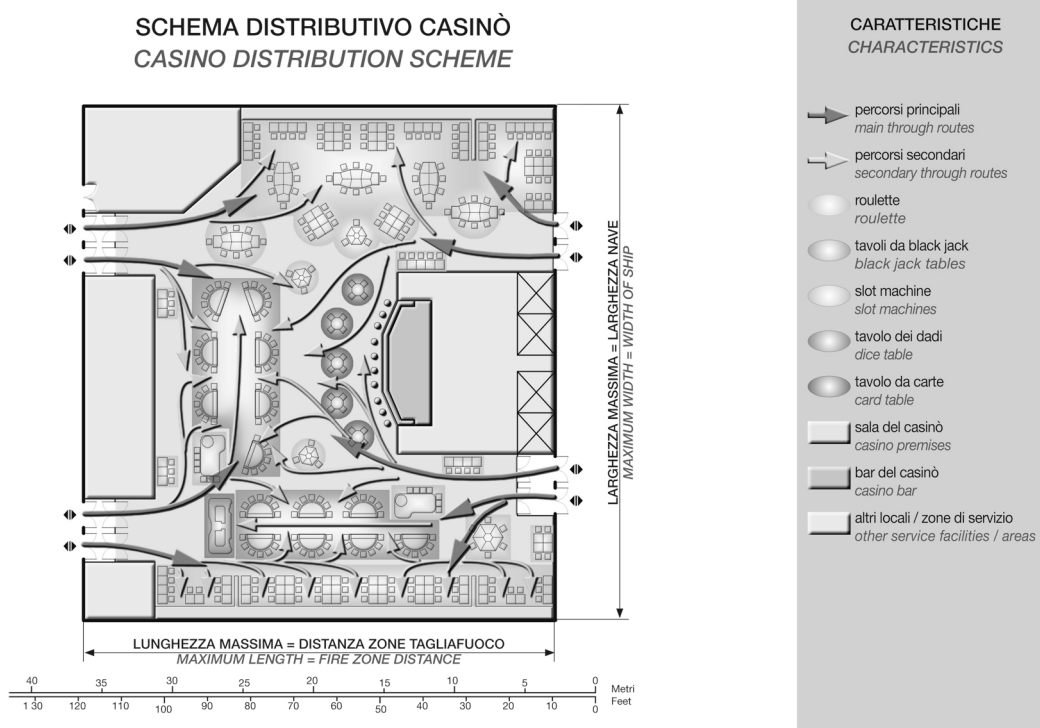


Figure 6. Casino distribution scheme

Casinos tend to have a square floor plan, and widthwise may run from side to side of the ship (30-32 meters) and stretch lengthwise from one compartmentalization bulwark to another (no more than 48 meters in length, the maximum permitted distance between one fire-barrier bulkhead and another). Inside this area the various gaming machines are arranged, usually along the sides of the ship, while the central area contains the tables.

On almost all cruise ships, the design of the casino does not differ much from the "Classic Contemporary" style. The gambling tables are in wood, slot-machines are fitted with variously decorated housings similar to old safes, and billiard tables are lit by three lamps in opal glass. Even the ceiling and floor are decorated with classic gambling symbols, such as those of the

suits of cards, the colors are red and black, and the Times New Roman numerals on the roulette wheel.

Likewise the discos are the most representative dance facilities of modern society and have evolved from traditional dance halls. To keep up a lively interest in alternative forms of entertainment, discos constantly follow technological progress making them places in which some of the most diversified forms of entertainment are concentrated and experimented.

They play not only hearing but also on visual effects and even sense of smell may be involved in the overall show. Music is not the only star feature because videos, lighting, perfume dispensers and artificial mist create an all-round experience. DJs are accompanied by solo vocalists, bands and professional dancers who interpret each song as if it were a modern dance performance.

Discos began to evolve in the 70's with the advent of disco music; music specially created for dancing and not to be listened to, which has conditioned the architecture of the old dance halls, turning them into discotheques. This evolution has also taken place on cruise ships: on old-time liners there were authentic dance halls, normally called ballrooms and richly decorated, where passengers met after dinner to listen to music, socialize and dance to the rhythm of the Charleston in the 20's and the boogie-woogie in the 40's. After World War II with the advent of the first cruise ships, large ballrooms multiplied with the creation of show lounges, theaters and discos, thus diversifying and specializing leisure activities.

Discos are the only facilities that right from the beginning have been kept separate from the other public areas. The main reason for this lies in obvious sound level issues, but other factors such as the dark, softened and smoky atmosphere have created a common opinion that they are places of perdition which therefore must be isolated. Today, the role of discos has profoundly changed becoming to all effects and purposes places of entertainment, but their positioning has remained, for other reasons, separate from the "public" part of the ship. Besides being located on the uppermost decks, discos are usually in panoramic positions. They are no longer enclosed within padded walls, but by structural glass which permits unique views, enjoyable both by day and by night. Discos today are nightclubs for dancing and shows, which by day are used for listening to music and practicing aerobics.

The show lounge and internet café are much more modern public environments that arise from the evolution of contemporary life.

Show lounges are public areas where amusement and extra activities complementary to the main kinds of entertainment, such as dance shows, comic entertainment or cabaret which can also be used as places for relaxation and conversation.

Show lounges are fundamental for the life of the ship. They are used by passengers during the calmer periods of life on board, or when the weather conditions do not permit outdoor activities on the sun decks.

Show lounges are sometimes also called secondary theaters since their characteristics are similar to those of the larger facility, with a less rigid layout, no longer dictated by strict design rules. This aspect is motivated by the wish to have a multi-purpose area where it is possible to vary the type of service offered as needed.

The lounge is positioned on the lowest public area decks, in particular on the same level as the embarkation deck.

5. THE PUBLIC AREAS FOR THE WELLBEING

There are three areas of the ship where passengers usually take care of their psycho-physical wellbeing: swimming pools, fitness centers and wellness centers. While, on one hand, swimming pools and fitness centers are well-established and consolidated phenomena featured on cruise ships right from the very beginning, and on the other hand, wellness centers are one of the most recent innovations in this sector.

It is a new trend which on board has been particularly successful and above all compatible with the current trend for considering cruises as holidays in themselves rather than as tours to discover the world.

This new trend also goes hand to hand with the recent revival of traditional architectural spa facilities on dry land, now converted to luxury beauty farms or spas that are very much in demand.

It is also a new trend that ship-owning companies promote since it is a source of extra income and therefore, like the casino, an authentic means for added earnings for the ship-owners.

Indeed, while the lido, a virtual reconstruction of seaside life, is part and parcel of cruise packages, the fitness and wellness centers, on the contrary, are legitimately included in the personal choice options, and therefore each service offered in these centers corresponds to a very exact price list which raises the costs of a standard cruise.

The body care structures are generally located on the upper decks of the ship, immediately adjacent to the lido and the outdoor swimming pools. Fitness and specialized centers may be part of a single structure or separate, but they are always located in adjoining areas. Open air sports, too, are provided on the upper decks, by the stern or bow, but always close to the areas devoted to swimming and sunbathing.

Swimming pools and lidos are the epitome of a seaside life that cruises, despite the fact that they are sea voyages, plainly deny; located at the center of the ship, around the main body, these facilities are on the upper decks, placed not to the topmost, but usually the second or third deck from the top. Decks which, precisely with the intention of bringing to mind the seaside ideal and their leisure purpose, are often called the lido or sun deck.

Their position is decidedly strategic since it permits the creation, using subtle architectural effects, of a kind of open-air amphitheater protected by the ship's sides and by the gangways connecting the appendages of the ship, as well as by shorter partial decks higher up, both at the stern and at the bow, which stop short to leave the lido itself open to the sky. This kind of layout makes it possible to create a very extensive, sheltered and comfortable area where passengers may swim and sunbathe, even while sailing at sea.

When defining the layout of lido and sun decks, ideally they should have at least two swimming pools, a surrounding area for sun bathing, changing rooms, toilet and shower facilities and refreshment services such as a bar, ice-cream parlor and a buffet, while it is absolutely essential that the deck immediately above, when used as a sun deck, must be cut out directly above the bathing area and fitted out as a solarium on the remaining surface corresponding to the length of the lido as well as on the strips that remain along the sides.

The decision to integrate the bathing area with refreshment services that can satisfy the passengers' numerous desires makes it possible to limit the distances that "bathers" need to cover since they can find all they need to spend a day relaxing in the sun on two connected decks without having to go elsewhere to drink, eat, change and so forth.

As the size of ships increases, moreover, and in direct proportion to this, the current trend is towards expansion of the standard facilities offered on sun decks, to include, in addition to two or even three swimming pools, a whirlpool or hot tub, considerably amplifying the average surface areas used for the lido and to the facilities offered there.

The swimming pools may be on the same level, or placed at differing heights, increasingly often connected with one another by water slides and water games that bring to mind fantastic amusement and water parks.

A new entry in the top ten onboard facilities is certainly the wave pool for the amusement of youngsters and adults alike and even new surfing enthusiasts.

Reference models for planning these areas certainly remain water parks on dry land, which provide valid inspiration for innovative and avant-garde solutions with regard to amusements.

In combination with the actual lido, cruise ships are often provided with an indoor swimming pool, usually located aft of the main body and on a deck lower than the lido, almost always fitted with a panoramic structural glass wall or, if possible, with a sliding glass roof to protect the pool in bad weather or from the fumes from the ship's funnels, but which makes it possible to enjoy the open air and sky in normal weather conditions or when in port.

Sun and lido decks, depending upon the standards provided by the cruise company and the size of the ship, may be completed with adjacent areas to be used for outdoor sports. These areas are often called sports clubs where there are tracks for jogging, small golf greens, complete with virtual simulators, volley ball pitches or tennis courts, carefully fenced in and protected, which give passengers the opportunity of increasing the number of open air activities they can take part in.

Added to these areas are numerous gymnasiums, nowadays incorporated into the increasingly more common fitness centers.

The sporting tradition of life on board cruise ships originates from the 1930s when, after abandoning the desire to conceal the fact that they were sailing, indoor and outdoor games and

recreations became fashionable on the most famous ocean liners. The Rex and the Conte di Savoia could boast of well equipped gyms that perfectly corresponded to the slogan "mens sana in corpore sano", summer and/or winter swimming pools, as well as open air areas devoted to the most widely differing sports compatible with life on board.

It is quite easy to come across drawings filed away in the archives of shipping lines or reproduced in numerous books on the golden age of transatlantic liners, like those describing the decks of the Conte di Savoia and showing open air spaces equipped with boxing rings and areas for playing "palet", or others that show scenes from life on board the Augustus in which passengers enjoy themselves by simulating open air dog races or play gripping golf tournaments on a magnificent "turf" made of teak carefully polished by the crew.

Following on from the recreational fancies of liners, when the shipping world progressed from ocean crossings to the new and more modern concept of cruises, all outdoor and indoor environments devoted to recreation gained growing importance. Public areas have followed both fashion and changes in culture to arrive at a design compatible with human practices in the new millennium.

6. CONCLUSIONS

In conclusion, considering the urbanistic planning now consolidated, the most recent cruise ships continue to maintain the matured distribution in the last decade. The innovation is about small changes linked by one side to the continuous growth in size of the cruise ships and, on the other side, to the increase of the number of passengers on board and to the changing needs of the society.

Often these innovations determine adjustments of the entire public spaces in order to update to the sudden change of the passengers' preferences. This happens not only during the complex refitting operations but also during the most simple and periodic maintenance routine.

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