

Biophilic Design as Participative Design (Restaurant Case Study)

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ABSTRACT

I have been developing the concept for a new "Biophilic Organization" to bridge the gap between organizations and the natural world, despite their claims of sustainability. By drawing from fields such as evolutionary psychology and architecture, this research aims to establish a robust link between nature and culture within organizations, demonstrating how this connection can significantly contribute to sustainability. Furthermore, the paper takes a comprehensive approach to sustainability, recognizing and addressing the various challenges. Regarding the restaurant concept, it is commercial in nature, and I am planning a comprehensive revamp. After conducting a thorough assessment of the restaurant, I have identified key areas for improvement with a unique style in mind. Upon researching the structural aspects that require enhancement, I have concluded that expanding the restaurant's space and seating capacity is paramount. Furthermore, I have diligently studied three comparable eateries and drawn inspiration from their concepts to infuse into my own establishment. Despite the upcoming competition from restaurants near the Amman Mall construction, I am confident that my restaurant will differentiate itself with a unique interior design that captivates visitors with an abundance of gorgeous indoor plants, exuding life, innocence, and beauty.

Keywords: Biophilic, Interior Design, Public Space Design.

INTRODUCTION

Biophilic cities and resilient contexts are closely connected (Beatley, 2011). The relationship between the environment and society influences resilience (Beatley & Newman, 2013). For instance, waste from one animal can be food for another, unused space can be useful in the right context, and decaying trees can be a resource for various plants and animals (Bayulken et al., 2021). Events like death, birth, and migration help maintain the composition of species (Beatley & Newman, 2013).

In terms of environmental resilience, biophilic design can provide shade and evapotranspiration, and greenery can reduce perceived temperature, mitigating the effects of climate change (Africa et al., 2019). Conversely, biophilic design is essential for providing opportunities to live and work in healthy places and spaces with less stress and greater overall health and well-being by reconnecting with nature (Cacique & Ou, 2022; Lee & Kim, 2021). For example, the City of Rotterdam implemented 5,000 m² of new vegetation and 50,000 m² of green roofs as part of a hybrid system for addressing urban resilience and improving the quality of life for urban residents (Tillie & van der Heijden, 2016). In this case, biophilic design was utilized to integrate the adaptation of nature with the aesthetic appeal of urban space by improving human-nature connectivity (Beatley, 2016).

Biophilic cities are closely related to resilience because the application of biophilic design can help enhance their resilience and sustainability by promoting healthy lives and well-being. Toward this end, biophilic contexts that emphasize contact with nature in public spaces and provide psychological restoration can be used. Moreover, building resilient infrastructures through sustainable stormwater management and making cities resilient and sustainable through low-impact development concepts are other examples.

LITERATURE REVIEW

The term "cafe" encompasses two main definitions: firstly, it refers to a place where individuals can enjoy coffee while being entertained by music, and secondly, it denotes a venue where patrons can order a variety of beverages such as coffee, beer, and cakes. Cafes have evolved into popular socializing spots for people of all ages, serving as alternative spaces for work and learning post the COVID-19 pandemic. In the realm of the food industry, cafes operate as commercial establishments, typically offering a more limited menu compared to restaurants. Despite this, they provide a comfortable and informal setting for guests to unwind and come together. According to Pujianto and Vallery (2021), cafes and restaurants may employ various service systems, including self-service, waiter/waitress service, counter service, automatic vending, and delivery service.

Problem Statement

- The restaurant space is small.
- The number of chairs and tables is very large and there is no space to move.
- The division of the restaurant is not organized, as there are empty spaces and spaces full of customers.
- There are 3 counters, and this is not necessary and takes up the space of the restaurant.

RESEARCH METHODOLOGY

- In this research, I visited the project website and reviewed all the functions of the restaurant. The area of this restaurant is estimated at 196 square meters. The restaurant contains a kitchen, 3 reception tables, a seating area, and a bakery.
- The goal of this project is to change the design of the place and enlarge its space. The restaurant space represents a major challenge for us due to the lack of sufficient space for customers.
- so we will need to add additional space to the restaurant to accommodate the largest number of customers and also leave space for movement between them. And changing the interior design style to create a calm, pure, and comfortable atmosphere for customers.
- The plan is to remodel the eatery in a biophilic design as opposed to a conventional one.
- The restaurant will have a stylish yet understated appearance. White, gray, and green are peaceful hues that will go well with the straightforward furnishings.
- There will also be a lot of indoor plants, which will look lovely and make the consumer feel amazing.
- The space will be increased in size, and the front will have eighty percent more glass. The sitting area's area will grow when the space is expanded.

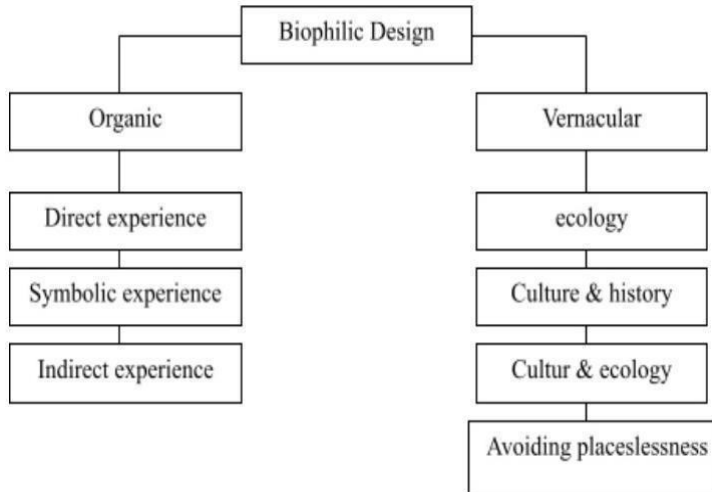


Figure.1. Biophilic Design Element

The Location

The restaurant that I am redesigning is located in Al Ghubrah, Muscat, Sultanate of Oman, specifically in Oman mall, The restaurant can accommodate approximately 60 people and a total area of about 196 SQM.



Figure.2. The location of Oman Mall from Google Map

Positive locations

Paul Restaurant in Oman Mall. This mall is in a crowded commercial area and on the Muscat Expressway, and the Sultan Qaboos Sports Complex is close to it. There are many services close to it, such as the Grand Inn Hotel and others, and many shops and cafes. Paul Restaurant is next to many international stores and perfume shops, and it is also close to the reception and the main entrance.

Negative location

The restaurant is close to the crowds of shops and the noise of other restaurants.

The objective

Expanding the restaurant space.

-Providing a suitable environment for the restaurant.

-Meeting customers' needs.

- Provide a place with suitable lighting for the restaurant.
- Providing a place that is comfortable for the nerves and full of life and vitality.
- The restaurant's facade is 80% glass.

Drawing Project

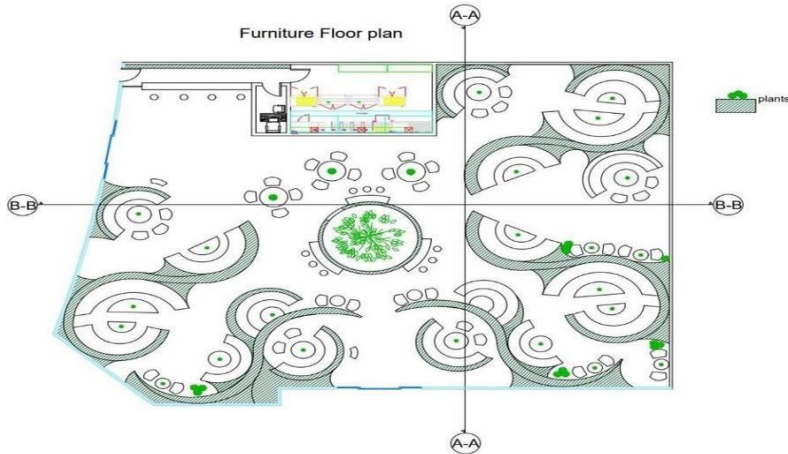


Figure 3. Floor Plan



Figure 4. Landscape floor plan

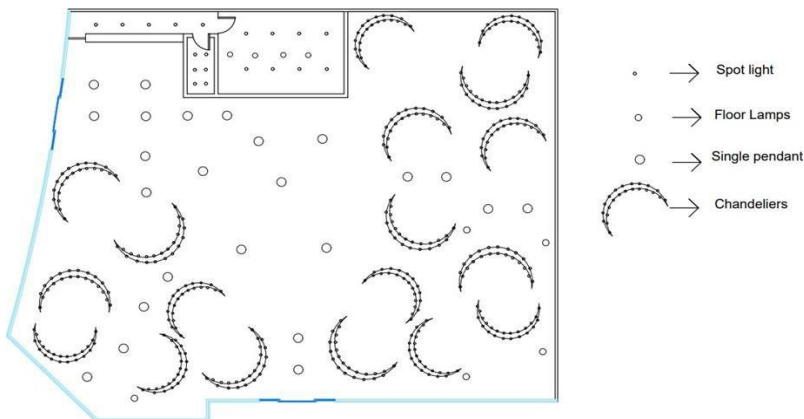


Figure 5. Lighting plan



Figure 6. Section A-A



Figure 7. Section B-B



Figure 8. Front elevation



Figure 9. Left elevation

Detailing

Table 1. Lighting Table





NO.	Item	Image	Dimension m			Material	Color	Country	Number	Room	Note
			L	W	H						
1.	Spotlight		0.024	0.092	-	plaster, metal, steel	White	China	19	Kitchen, office room, corridor	-
2.	Floor Lamps		0.016	0.030	0.091	metal, steel, Glass	White	China	5	Sitting area	-
3.	Light Pendant		0.014	0.026	-	Metal - Aluminium	White	China	28	Sitting area	-
4.	Chandeliers		0.022	0.017	0.076	Aluminium, Glass	White	China	454	Sitting area	-

Table 2. Material Table

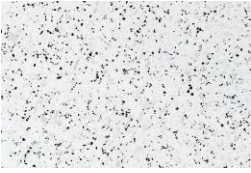


Floor	Wall	Ceiling	Note
Granite (50*50) 	Water Painting 	Gypsum board 	-

Table 3. Plant Table

NO.	Item	Image
1.	CAST IRON PLANT	

2.	PARLOR PALM	
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Table 3. Plant Table




4.	lucky bamboo	
5.	calathea	
6.	Golden pothos	
7.	Kunstplant	



Figure. 10,11 3D views of the restaurant





Figure. 12,13 First entrance



Figure. 14, 15 Perspectives Interior Design



Figure. 18, 19 Perspectives Interior Design



Figure. 22, 23 Perspectives Interior Design





Figure. 28 Seating area

Table 3. Space Requirements

Variable	Adaptation of New Habits
Space Requirements	<ul style="list-style-type: none"> • Large windows for ventilation • There is much greenery to filter the air naturally • Assisted lighting with natural lighting • Ventilation is assisted by the air conditioner and fan • Placement of high ceilings to provide good air circulation
Facilities	<ul style="list-style-type: none"> • Seating facilities are more spacious, although capacity has been reduced. • Signage facilities are cleaned neater and adjusted to the design concept • Floor sign facilities are created according to the design concept
Ergonomics	<ul style="list-style-type: none"> • Table and visitor sizes adjust to ergonomic standards • Circulation between visitors is adjusted according to the rules for adapting to new habits

CONCLUSION

In summary, the classic Paul Restaurant was redesigned into a modern purity Restaurant. Through the report, problems were identified and solutions were found, as well as plans were developed that were in line with Oman Vision 2040. An upscale restaurant was designed, the idea of which was not only for eating but also for relaxation and purity, and the restaurant achieved the complete concept that was achieved. Explained in the report. When contemplating the design, you will notice that the white and green color dominates the place, and at first glance, you will feel relaxed, in addition to the indoor trees that freshen the air and give a feeling of positivity and vitality.

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