

JEDDAH SCHOOL OF DESIGN

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Abstract

A School of Design is dedicated to the part of society who's interested in design as it will offer multiple field studies to be well-learned and practiced in its campus. The four major courses that this campus will offer are architecture, product design, fashion design, and graphic design. These four courses will be park under the roof of one building. Furthermore, as a design environment, it must have the basic facilities of studios, fabrication labs and computer labs as main functions of the building. Because it is an independent institute, it would also need some secondary needs such as a gallery and a library. The proposed space program of the project consists of admin and staff, learning facilities, educational services, display zone, student's services and others. Site evaluation was conducted on the criteria of accessibility, views, visibility, surrounding, noise level, and infrastructure. The selected site for the project is at the intersection of the King Road and Abdulrahman Bin Alzubair Street. This project aims to create a space that suits the fields which will make studying less stressful and more enjoyable.

Keywords-- School of Design, Multiple Field Studies, Campus, Design Environment

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INTRODUCTION

The integrated of independent educational facility is not available currently in the Kingdom. There are lots of universities that offer the same programs under its design department and it is usually on a university campus. There are hundreds of independent design schools around the world and most of them have different and variant fields of study such as architecture, landscape architecture, urban design, graphic design, industrial design, user interface design, interior design, animation, fashion design, film and video, product design, automotive design, furniture design, and a lot more. Bauhaus "house of building" was one of the earliest schools of design that offered areas of design including architecture, interior design, industrial design, graphic design, and more [1, 2]. It was designed by one of the pioneers of modern architecture, Walter Gropius, who started the Bauhaus movement in Germany which began in 1919 and ended in 1933 [3, 4]. The school's mission according to Gropius was to conceive and create the new building of the future, combining architecture, sculpture, and painting in a single form, which required the teaching of a new guild of craftsmen without the class distinctions separating craftsmen and artists. In short, the Bauhaus trained students to be equally comfortable with design, craft and methods of mass production [5, 6].

Jeddah is a city that contributes in many ways to the designers of its society, yet it lacks the professional educational facilities that focus on providing those groups of people the appropriate tools that make their ideas and creativity easier to implement. Designers of any specialty prefer a space that is well-designed to inspire their educational and mental status. "Recognizing the need is the primary condition for design." by Charles Eames [7, 8]. For more imaginative thinking and brainstorming, there must be interaction on so many levels whether between public and designers or between designers themselves. The society is innovative and innovative environment should be provided for them to perform themselves.

CASE STUDIES

There are three case studies with similar topic are considered. The chosen case studies drawing the prevailing design principle and provide the excellent facilities for the users and they are:

- (a) Melbourne School of Design University of Melbourne, Australia
- (b) Abedian School of Architecture, Australia
- (c) Pearl Academy of Fashion, India

Melbourne School of Design University of Melbourne, Australia

Melbourne School of Design University of Melbourne is designed by John Wardle Architects, NADAAA (Figure 1). A multi-award winning building that provides highly advanced and flexible studios, auditoria, lecture rooms and theatres, exhibition halls, administrative and research workspaces, as well as library [9]. The entire building was built to be an educational tool for the students. Instead of flipping through pages of books to study, they can just gaze at the building interior as well as exterior, and learn from it. The building consists of six levels that include a basement that hosts a huge lecture theatre along with other small ones. The Studio Hall is the center of the building which most activities take place at. Along with it, comes the masterpiece of the building, which is the hanging studio. The four facades of the building are wrapped with perforated zinc solar shading systems while on the southern side a heritage facade of the Elisabeth Murdoch building is kept where they have a big exhibition gallery just behind it for big events and juries [9]. The center of the building accommodates a ceiling with extensive timber trusses that allow natural ventilation and diffused light.

Abedian School of Architecture, Australia

Abedian School of Architecture is designed by CRAB Studio (Figure 2). The building is a long loft that continuously consisting of scoops that create meeting spaces as well as a structure that supports the building. These scoops are aligned with the street which is considered the spine of the building and all actions take place around it. The roof is treated as fans to ventilate the building as the climate in the city is usually hot and humid [10].

Pearl Academy of Fashion, India

Pearl Academy of Fashion is designed by Morphogenesis (Figure 3). This is a passive environment that perfectly connects the inside of the building with the outside. The building consists of an airy lower ground level that hosts a cat-walk (performance

area) and an exhibition area. It also contains a big water feature and some landscape to help in its post-cooling performance. The upper ground level has only has minimum spaces such as lockers, a shop, canteen, kitchen and outdoor seating while the first floor level has the main entrance and reception area and all educational facilities [11].



Figure 1. Melbourne School of Design University of Melbourne, Australia [9]



Figure 2. Abedian School of Architecture, Australia [10]



Figure 3. Pearl Academy of Fashion, India [11] Pearl Academy of Fashion, India [11]

SPACE PROGRAM

This project considered several main zones for the space program namely admin and staff, learning facilities, educational services, display zone, student’s services and others. The space program of the program is shown in Table 1, where the student’s service and educational service zone dominated the largest space about 32% and 21% respectively. There are only 3% of the space is allocated for others developments.

Table 1. Space Program

Zone	Used Percentage (%)	User s (n)	GFA (m ²)	NFA (m ²)
Admin and Staff	18	144	2221.1	1851
Learning Facilities	10	960	2587.8	2070.25
Educational Services	21		1300	1040.25
Display Zone	16	240	2000	1600
Student’s services	32		4834.5	3867.6
Others	3		124.4	103.65
Total	100		13067.8	10532.75

SITE SELECTION AND ANALYSIS

The proposed site is located in the northern part of the city of Jeddah, Saudi Arabia. Specifically, it is near the northern cornice and can be found at the intersection of the King Road and Abdulrahman Bin Alzubair Street (Figure 4). The proposed site is evaluated with several criteria such as accessibility, views, visibility, surrounding, noise level, and infrastructure. The description of each criterion is demonstrated in Table 2.



Figure 4. Proposed site location [12]

Table 2. Site Evaluation

Criteria	Descriptions
Accessibility	Easy and fast from a main street since there is a specific shift time
Views	Private/ Residential /Empty Lands
Visibility	Important to be visible since it includes an open gallery for public
Surrounding	Avoid commercial and public area
Noise Level	Medium
Infrastructure	Must be in an area that is already functioning

The site is easily accessed from main streets, which is the King Road directly to the site. The traffic in the routes is usually medium. However, Al-Malik Rd. in the early morning has heavy traffic since it is the time where everyone goes to work. The location of the site has very little variety of functions. There are residential houses all around, entertainment and commercial facilities are just across the street from the King’s Road. Generally, the site is located on a street that is very well functioning with different facilities. Since the view is important to this project and is highly taken into consideration when designing the project, the surround views are mainly residential. Hence, the landscape of the project shall be well designed. Figure 5 displays the site climate analysis where the site experiences the prevailing from the North South direction. The main noise factor is from the main road, which is King Abdul Aziz Road.

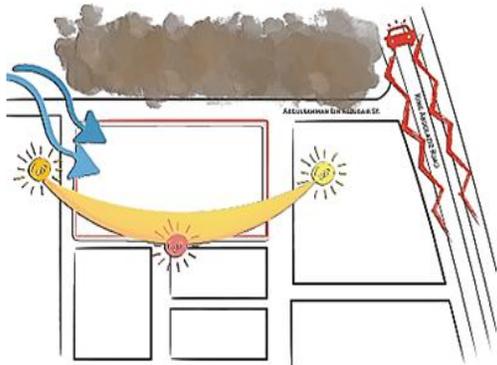


Figure 5. Site climate analysis

ZONING AND PROJECT DESIGN

Enhancement of the work environment will result in exceptional production and this is the aim for future educational investment. There is a need for a habitat for designers that do not cause depression or discouragement. Educational facilities could be a lot more enlightening if properly designed and constructed. Figure 6 demonstrates the site zoning, where the educational zone is located near to the staff and main entrance. The site master plan is shown in Figure 7. Also, the concept of design is to increase the productivity and innovation of designers by motivating the integration of different majors in one building. Figure 8, Figure 9, Figure 10, and Figure 11 demonstrates the view of fashion show zone, display zone, main entrance, and gallery entrance respectively. The main perspective view of the project is demonstrated in Figure 12.

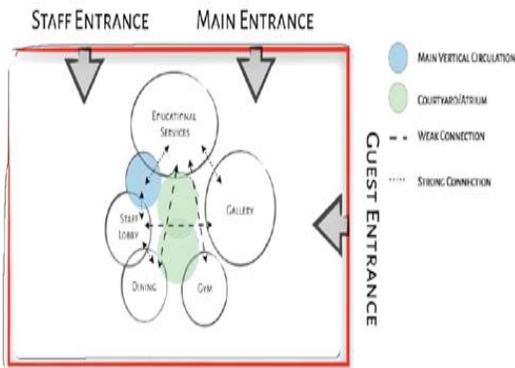


Figure 6. Site zoning



Figure 7. Site master plan



Figure 8. Fashion Show Zone



Figure 9. Display Zone



Figure 10. Main Entrance



Figure 11. Gallery Entrance



Figure 12. Main Perspective View

CONCLUSION

This study proposed an encouraging, sustainable and healthier environment for designers where they can explore their imagination and ideas. As a matter of fact, designers observe, inspire, aspire, understand, and solve problems, they are more innovative and productive if placed in an appropriate setting. The proposed zones in this project are admin and staff, learning facilities, educational services, display zone, student's services and others. The selected site location is at the intersection of the King Road and Abdulrahman Bin Alzubair Street. The site was evaluated for the criteria of accessibility, views, visibility, surrounding, noise level, and infrastructure. The proposed constructive building aims to advance the learning experience such as create spaces for the students to meet and hang out, work and study, also strengthen the relationship of undergraduate students, postgraduates, and their instructors.

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