

## JEDDAH'S MEDIA COMPLEX

Safinaz M. Albialy<sup>1</sup>, Mervat Elshafie<sup>2</sup>, Mohamed Shokry<sup>3</sup>, Zaki Mallasi<sup>4</sup>

<sup>1,2,3,4</sup>College of Architecture and Design, Effat University, Qasr Khuzam St., Kilo. 2, Old Mecca Road. P.O.BOX 34689, Jeddah 21478, Saudi Arabia

E-mail: <sup>1</sup>[salbialy@effatuniversity.edu.sa](mailto:salbialy@effatuniversity.edu.sa), <sup>2</sup>[melshafie@effatuniversity.edu.sa](mailto:melshafie@effatuniversity.edu.sa), <sup>3</sup>[mshokry@effatuniversity.edu.sa](mailto:mshokry@effatuniversity.edu.sa), <sup>4</sup>[zmalasi@effatuniversity.edu.sa](mailto:zmalasi@effatuniversity.edu.sa)

Received: 30.03.2020

Revised: 28.04.2020

Accepted: 01.06.2020

### Abstract

Media Cities not only a place for media production, but also have been linked to the recent surge in the popularity of 'Creative City' policies around the world during the last few years. The city centre is created with all the major and main needed facilities for the people living in that city. These media cities became the centers which help to foster creativity and innovation by making them attractive places to live, work, entertain and play. This study focuses on the building type study, preparing the area assumptions and reaching the detailed space program for each zone. In addition, this study discusses all the technical requirements and acoustics needed for the building type also the site selection and analysis. Few locations were proposed and evaluation was conducted based on site criteria. Several important zones was included in this project such as cinema, amenities, education institution, studios, administration and others services. The selected location for the project is located at north side of Jeddah, obhur Al Shamaliah district, Saudi Arabia, also beneficial with factors of accessibility, potential future development plan and nice landscapes.

**Keywords** -- Media Complex, Media Cities, Facilities

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DOI: <http://dx.doi.org/10.31838/jcr.07.08.49>

### INTRODUCTION

Media became a universal language, which everyone can reach in any place in the world. Media became the most effective tool all over the world. Media is everything that has a message with a specific goal to be delivered to the audience, produced by an artist. Mainly media is about TV productions, Radio, Newspapers, and Internet [1]. Media City is a term currently used to describe cultural and media centers operating at very different geographical levels [2]. They range from small-scale local urban clusters in the media industry to the cultural metropolises of the global urban and regional system [2]. The media city mainly consists of a media college; TV broadcast centre and company, publishing company, distributing company, advertising centre, radio station, journalism publishing centre, with any other building that might serve the media in general.

As media cities can be defined as large, planned, highly developed urban areas designated specifically to concentrate media and creative industry production [3]. By concentrating media and creative industry activity to relatively small urban locales, these media cities are acting as global media hubs that are attempting to create a knowledge-led 'buzz' that helps to develop and foster creative industry activity [4].

In the kingdom of Saudi Arabia, especially Jeddah there is no place for the television programs to be broadcast from, also in the kingdom people are missing the main concepts of media, as there is no place to produce this kind of documents, no cinemas, theatres, auditoriums or any other place that broadcast media in the kingdom. Media branches are hard to find them all collected and located in the same place. Therefore, this study proposed a Media Complex project to develop in Jeddah, Saudi Arabia.

### CASE STUDIES

The two main case studies and two thematic cases are included in this study. The three main case studies are Vakko Fashion and Power Media Center as well as Columbia College Chicago Media Production Center. The two thematic cases are Busan Cinema Centre and Hong Kong Design Institute.

### Vakko Fashion and Power Media Center

The Vakko Fashion and Power Media Centre located in Istanbul, Turkey have been built to accommodate two Turkish sisters companies, which are Fashion House Vakko and Television and Radio Company Power Media (Turkish MTV) (Figure 1) [5]. The Vakko Fashion Center and Power Media Center transformed the abandoned skeleton of an unfinished hotel project in Istanbul to create one of the most significant new additions to Turkey's contemporary architectural buildings.

The building is clearly divided in two parts; the first one is the radio and TV production centre, which is mainly located in the underground floors with a direct vertical circulation from the ground floor and with another entrance accessed from the parking space, and in the ground floor there is an outdoor core that is directly connected to the production centre. The Radio and TV production centre is located in the underground floors for a specific reason, which are the designers wanted to permit the natural sunlight to enter these areas for the technical issues that should be considered during the podcasting and filming stages. The second part is the offices, meeting rooms and the show rooms, which are located in the upper 4 floors, connected to the main entrance and the underground production centre with the main central core [5].

### Columbia College Chicago Media Production Center

Columbia College Chicago Media Production Center is owned by the Columbia college in 1600 South State St, Chicago, USA, and it is an education facility which teach students what is media and its line of production and what are the behind scenes steps and aspects (Figure 2) [6]. This centre is completed starting from classrooms, computer labs, sound stages, up to the minute editing facilities, which allows the students to see and experience the real work environment while they are still students. Beyond this building exterior beauty, it is a GOLD LEED certified building, having a green roof garden which creates energy and is serving as natural insulation for the roof. This centre is envisioned as an interdisciplinary meeting ground for students and faculty from film, television, game design, acting and other departments [6].

The building was built in a way to help the students to learn media from each and every corner in the building, even the lounges and the rest areas. The main issue the designers thought of is to have different levels and stages that is a direct translation for the stages taken for any media production films. The main issue the designers considered is the environmentally sustainability, which lead the building to be certified as a golden LEED building. As 50% of the building roof is used as a green roof area planted with vegetation in order to reduce the energy consumption. Another thing is the treatment of the exterior façade with the coloured glass strips that are known for the television background and images colours radiations. Columbia College wanted a professional quality media teaching facility that would encourage interdisciplinary collaboration among students and faculty [6].

Like film, the building uses spatial layering and oblique compositional lines to create depths of field and light is used to give "deep focus" and to animate movement across, through and within the framed views. As one walks through the building light and perspective are manipulated to create spaces similar to great cinematic ones. Sound and vibration isolation from urban noise and adjacent train tracks was an important part of the technical criteria met by the design. In addition, special attention was given to perfectly flat floors for rolling cameras, low velocity air for quietness during filming, and durable surfaces for students moving large carts and lights into spaces [6].



Figure 1. Vakkho Fashion and Power Media Center [5]

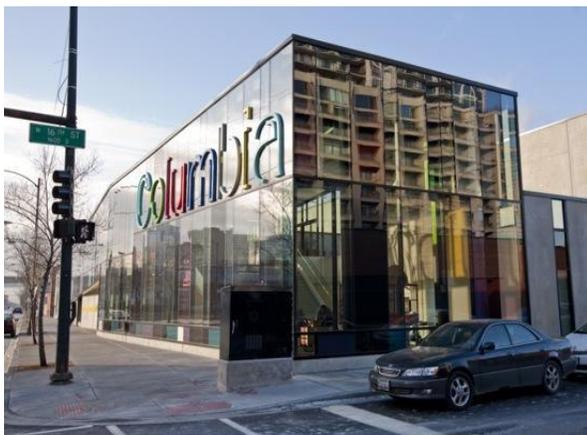


Figure 2. Columbia College Chicago Media Production Center [6]

#### Busan Cinema Centre

COOP HIMMELB(L)AU's design for the Busan Cinema Center and home of the Busan International Film Festival (BIFF) provides a

new intersection between public space, cultural programs, entertainment, technology and architecture creating a vibrant landmark within the urban landscape (Figure 4) [7]. Imbedded in the architecture the lighting surfaces serve as a communication platform for the content of the Busan Cinema Center. Light as art, which is at the very nature of cinema, creates a unique and memorable atmosphere for the public urban plaza and architecture of the BCC. Media, technology, entertainment and leisure are merged in an open-architecture of changeable and tailored event experiences. The result is a responsive and changing space of flows acting as an urban catalyst for cultural exchange and transformation.

LED lights glow from behind the canopy's glass underside, creating a rainbow of colours over the heads of visitors and guests arriving across the public square at the front of the complex. The dynamic LED lighting surface covering the undulating ceilings of the outdoor roof canopies gives the Busan Cinema Center its symbolic and representative iconographic feature (Figure 4). Busan Cinema Centre is built in a magnificent important location, which is overlooking the APEC Park and river beyond. This building is becoming a landmark for Busan city, because of its unique structure and treatment that made the building the centre of attention and eye caption iconic building for the whole city. This building was just the start to create the most important proposed project for Busan city open network of public programs [7].

#### Hong Kong Design Institute

Hong Kong's new design institute by French architects Coldefy & Associés, Architectes Urbanistes features a glazed box raised seven stores above the ground on four lattice-steel towers that rest on a sloping, grass-covered podium (Figure 5) [8]. The building is located in the Tiu Keng Leng area, to the north east of Hong Kong Island, in the Sai Kung District, adjacent to the Tseung Kwan O area and junk bay. The urban context of this area is mainly residential and commercial area. This building may provide the community with a meeting place by making its sports areas and auditoriums available; at the same time, it will bring an energy to the social life of the area by the presence of 4, 000 students within the campus, the numerous exhibitions and activities organized around the urban space it has created.

This building design concept is an inspirational one, as it is relating our life cycle to the education process and levels. Everyone is born knowing nothing which is represented by the earth, after that step by step humans start to learn and entre some different stages during their life time and this is the education levels. In order to reach heaven humans have to work and live going through a lot of different experiences and once they reach it is their dream, and this is represented by "the sky", humans peck point, after they receive education [8].



Figure 4. Busan Cinema Centre [7]



Figure 5. Hong Kong Design Institute [8]

**SPACE PROGRAM**

This project is mainly divided into 3 main parts: the education, the filming production and the cinemas.

**Technical requirements and acoustics needed**

There are 2-3 stories allocated for education part, where mainly for offices and classrooms, also equipped with natural daylight. The sound should reach each member of the audience with equal amplitude without any echo. Suspended ceilings are required for sound reflection and absorption also rear walls lined with sound absorbent material.

Shooting studios is the main core of the project, and it is the connection point between all the departments. The educational institute shares with the production centre which sometimes can be accessed by public. There will be different types of studios with different sizes to accommodate different needs; it is also supported with all required facilities such as reception, meeting rooms, make-up, hair dressing and green rooms, power source, vision control, audio control, director and producers rooms, workshops and storages as well as loading areas. Regarding the acoustic aspects, the sound insulation system should be installed in all the rooms. Doors and windows should have an insulation treatment, which will result in having no connection to the outside world. The shooting studios should be isolated from the outside noise as well as the natural light. The critical heights of the studios as the hanged systems are used, such as dolly system, cameras and tripods and the lighting system. Some of the walls should absorber, diffusers, slotted bass absorber, bass trap as well as the mounted ceiling absorber is required.

The cinemas should have no outside light other that emergency lighting. Walls and callings are made from non-reflective materials and not in too bright colours. The viewing angle from the first row of seats to the centre of the picture should not exceed 30 degree. The floor gradient is achieved by an inclination of up to 10%, or by the use of steps with a maximum step height of 16 cm and with aisle width of 1.20 cm. The seating capacity varies between 100 and 600 chairs and the car parking space is normally one per 5-10 spectators. This part equipped with technical utilities covered transformer room, medium and low voltage switch room, emergency power batteries, air conditioning and ventilation plant as well as sprinkler system. Cinemas and IMAX Cinema Theatres should not have any direct natural light; it works mainly with artificial lighting. The neighbouring cinemas should be separated with partitioning walls of approximately 85 dB 18-20000 Hz. Acoustic deflecting surfaces on the ceiling with low acoustic delay difference time. The reverberation time can increase with increasing room volume and decreases from 0.8-0.2 seconds from low to high frequencies. The rear wall behind the last row of seats should be sound absorbent to prevent echo. The loudspeakers should be distributed around the cinema so that the volume difference between the first and last row of seats does not exceed 4 dB. The walls and ceilings are made from non-reflective materials and in not too bright colours.

**Program Assumption**

Based on the case studies analysis, ratio of the build-up area to the outdoor area is 60% to 40%. The estimated build up area is equal to 33,326 m<sup>2</sup>, so the outdoor area assumption is 22,217m<sup>2</sup>. Table 1 tabulated the program assumption of this project.

Table 1. Program assumption

N o.	Zone	Gross floor area GFA (m <sup>2</sup> )	Net Area GFA X 0.7 (m <sup>2</sup> )	Percent age (%)	Number of floors	Footp rint
1	Cinema	4014.3	2810	12.05	2	2007.15
2	Amenities	1561.4	1093	4.69	1	1561.4
3	Education institution	1012.86	709.0	30.369	3	2363.3
4	Studios	1233.57	863.5	37.02	2	6167.8
5	Administration	2000	1400	6	2	1000
6	Services	3285.7	2220	9.85	3	1095.23
<b>Total</b>		<b>33325.7</b>	<b>23228</b>	<b>100</b>		

**SITE ANALYSIS**

The site proposal one is located in the north side of Jeddah, Obhur Al Shamaliah district, Saudi Arabia (Figure 6). The new master plan of Jeddah city is considering this area to be the new educational centre for the city, as it has some of the main universities which do exist now. The site proposal two is located in the southern part of the city, nearby Jeddah municipality, in al Baghdadiyah Al Gharbiah district, as this area is going to be the cultural hub for Jeddah city (Figure 7). The site proposal three is located in the northern side of Jeddah, in Al Naim district, located on King Abdul Aziz road which is considered to be a residential commercial district (Figure 8).



Figure 6. Site Proposal One [9]



Figure 7. Site Proposal Two [10]



Figure 8. Site Proposal Three [11]

**Selection Criteria and Site Alternatives Evaluations**

These building type requirements should be considered during the site selection phase, therefore the site will be chosen according to some of the parameters that are chosen according to the case studies analysis as well as the building type requirements. The weighting factors are: 4 refer to the most important factor, 3 are the important ones, 2 are the neutral factors and 1 is the least important factor. Table 2 demonstrates the result of site evaluation.

**Table 2. Site Alternatives Evaluations**

No.	Site Criteria		Site 1	Site 2	Site 3
1	Future Development Plans,(WF=20)		18	15	17
2	Surrounding/land use ,(WF=15)		14	13	12
3	Access / Traffic ,(WF=15)		13	12	14
4	Shape/Proportional,(WF=15)		14	14	14
5	Views,(WF=10)		8	7	8
6	Visibility,(WF=10)		8	9	7
<b>Total out of /85</b>			<b>75</b>	<b>70</b>	<b>72</b>

**Selected Site**

Based on the site evaluation result shown in Table 2, site proposal one is considered for this project. This site is located in the northern side of Jeddah city, Obhur district as it is now moving to be one of the most important and potential areas for the city, as it is moving to be a residential and an educational hub for the city.

**Site Historical Importance**

The site is directly located on Obhur street highway and as the Jeddah new master plan King Abdul Aziz Road will be extended over the water bay, which will link the northern Obhur to the rest of the city. Having the site near King Abdul Aziz international Airport and Al Hearmen train station which will give the site a chance to be an important spot to grab the people’s attention and involve with the teaching and technology. Nowadays, Jeddah is expanding to the north aiming to create an international urban identity built on traditional Arabic/ Islamic values. Most of the hotels, business towers, recreational facilities and the educational institutes are located in the north side of the city to serve the people’s needs. The educational institutions such as Batarjy Medical College, College Of business administration and IbnSinna Medical College, while in the future plan King Abdul Aziz University will be establish in Thahban district.

**Site Analysis**

According to the new master plan of the city, the kingdom tower will be built in the district which is adjacent to the site. It’s would be the highest tower in the world, which will improve its surrounding adding a value to the whole district. The other important fact is that the municipality is working on connecting this part of the city to the old city by creating three bridges, which will make the movement easier for all the users. In this area a lot of different academic institutions do exist, such as the Batarjy Medical College, College Of business administration and IbnSinna Medical College. Another advantage is having the airport located nearby and this is convenient for the media centers visitors.

**The Natural Elements Analysis**

Jeddah climate is considered to be high humid and hot temperature in summer, while it is warm temperature in winter. Rainfall in Jeddah is generally sparse. The prevailing wind over Jeddah is from North-West winds due to the location on the shore of the Red Sea these wind are usually moderate winds. While the bad winds come from South-East these winds get actives sometimes and their speed may cause sandstorm and heavy rain.

**Site’s Potentials and Challenges**

Any site in the world would most likely have its own positives and challenging points as there is no site that is perfect for each and every single detail. The site potentials are the site is newly developed area and oriented toward the preferable wind direction. The surroundings of the site are mainly residential with educational facilities, which will cause the building to blend with its surroundings. The kingdom city and the King Abul Aziz Airport are located near to the site. The site have a lot of good views as it is located on the costal line of the red sea, as well as the existing of the kingdom tower which will add a value to the area.

The site challenges are the site is directly located in the costal line should consider the water features during the design. The accessibility of the site in the current situation is limited, but according to the future development it will be good linked to the whole city. The site has only one main road, which will cause to propose future secondary roads for this building also lack of some of the amenities in the current situation of the area.

**DESIGN CONCEPT**

Figure 9and Figure 10demonstrate the selected site zoning diagram. There are total of 3 main entrances to access the main zones namely cinemas, education institute, shooting studio and administration. This project having the main circulation in the main atriums as it connects all the different departments with each other, in the other hand each zone has its internal vertical circulation.

Figure 11 and Figure 12 show the atrium interior day and night view also the main perspective view of the project is shown in Figure 13.

The project is emulating the works of media in taking the user through a journey, which is the process it takes a media work to be produced: from the start point ‘education’ going through the different stages such as the script writing, developing ideas, video tabbing and editing until it reaches the finale product that is presented to the public through the cinemas screens.

The lighting plays an important role in the development of media work, such as how cameras need light to capture an image. This is represented in the project through atrium’s that allows natural light to penetrate into the building and balances the demand of natural and artificial light needed in the space, as the shooting studios building is a dark area which is artificially lighted.



Figure 9. Site zoning diagram

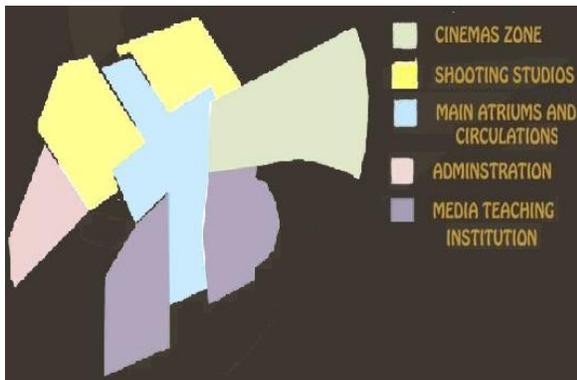


Figure 10. Project zoning diagram



Figure 11. Atrium Interior Day Shoot



Figure 12. Atrium Interior Night Shoot



Figure 13. Main Perspective of the Media Complex

### CONCLUSION

This proposed Jeddah's media complex should really express the technology and represent the high level of technology Hi-Tech and Modernity, but still keeping the city's spirit and values. This project provides the opportunity to educate people to make them expertise in the media production to run their own media city, which will be later on the centre of Jeddah city. This media complex will be the downtown of Jeddah city that have all the education, entertainment and social attraction facilities, which will serve all the people starting with kids, elder people reaching the special needs persons in this society. The zoning of the project consists of cinema, amenities, education institution, studios, administration and others services. The selected site for this project is located at north side of Jeddah, Obhur Al Shamaliah district, Saudi Arabia. This site also draws several advantage compares to others such as potential future development plan, accessibility and oriented in the portion of the site with highest visibility.

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