

Conference Paper

Campus developments China Versus Middle East

Gisela Loehlein

Xi'an Jiaotong-Liverpool University

Abstract

Campus developments are great social cultural and economic indicator for how a country views education on the one side and on the other what value architecture has in this. The paper is assessing the key stakeholder. The impact education has on the community and economy. Architectural designers are driven by their own design as well as economic ambition. The architectural choice of campus designs in the UAE is driven by internationalization drive. China seems to be more driven by internal flexibility and drive to have a symbolic architectural expression of the campus.

Keywords: Campus design, architecture, sustainability, UAE, China

Corresponding Author:

Gisela Loehlein

Gisela.Loehlein@xjtlu.edu.cn

Received: 15 March 2019

Accepted: 25 May 2019

Published: 20 November 2019

Publishing services provided by
Knowledge E

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Selection and Peer-review under the responsibility of the Architecture across Boundaries Conference Committee.

1. Introduction

University campus design for architects and architectural academics straight away link campus design to the psychological relationship between academic pedagogy and spatial expression. This paper provides a comparative overview of campus developments in UAE and China to understand the architectural developments and the difference in foci.

2. Campus Case Studies

2.1. UAE

The United Arab Emirates only exists in its current set up since 1971. The higher education institutions only set up since 30 years, with UAEU and Ajman University as one of the first higher education institutions in the country. The UAE currently devotes approximately 25 percent of total federal government spending to education. The overall literacy rate is 90% [1].

The success of the educational institutional offering through the university city expansion by HH Dr Sultan Al Qassimi through the set up of American university in Sharjah led to the expansion of the higher education market in the UAE. The most well known

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universities have architecturally set on a classical style of architecture to instil and create history.



Figure 1: American University of Sharjah.

The Directorate of Public Works (DPW) and to HE Sheikh Khaled bin Saqr Al Qassimi, was charged to look after the Higher Education portfolio in Sharjah. During my time in DPW and AUS, I looked after the three new campus developments (Agricultural, Marine and Sustainability focused campus developments) in addition the expansion of the Medical college i.e. construction of the teaching hospital, the Business School at AUS, the renovation of the College of Art, Design and Architecture. At Rochester Institute of Technology in Dubai I was charged to develop a vision for the new campus in Dubai Silicon Oasis. Rochester Institute of Technology in Dubai Campus development together with was Polis Architecture Front in 2013 [2]. The design was developed over a long weekend and formed the basis of the new campus development plan and enabled the marketing and financing of the same.



Figure 2: Polis Front Architecture, RIT- Dubai, UAE, 2013.

The final project constructed is a much more commercial proposal, also more classical again in order to elude to history and lineage of academia in the UAE.

Whereas the sustainability focused campus in Sharjah was a direct answer to Masdar City development in Abu Dhabi, that focused on environmental design and energy saving, The Sharjah campus focused on a holistic sustainability approach to education



Figure 3: Polis Front Architecture, RIT-Dubai, UAE, sections, 2013.



Figure 4: Polis Front Architecture, RIT-Dubai, UAE, interior, 2013.



Figure 5: Under construction RIT-D, campus architect RIT (NY), Dubai, UAE 2017 ([3]).

and academic community. Architects are directly appointed by the government. The selection of the architecture firms is based on a vision of internationalization or key VIP local architecture firms.

GHD, Australian architecture firm, was appointed for designing the campus in Sharjah, design consultations took place with Higher Education Advisor Dr Amr Abdelhamid at University of Sharjah. The series of meetings weekly ensured the tailoring of the design to the requirements set out for the campus development.



Figure 6: ATKINS, Masdar urban planning proposal [[4]].



Figure 7: GHD concept board [[5]].



Figure 8: GHD master planning [[6]].

The design was approved by HH Sheikh Sultan Al Qassimi of Sharjah in 2008. The translation of the project into practice was suspended due to the economic correction of 2008/09.

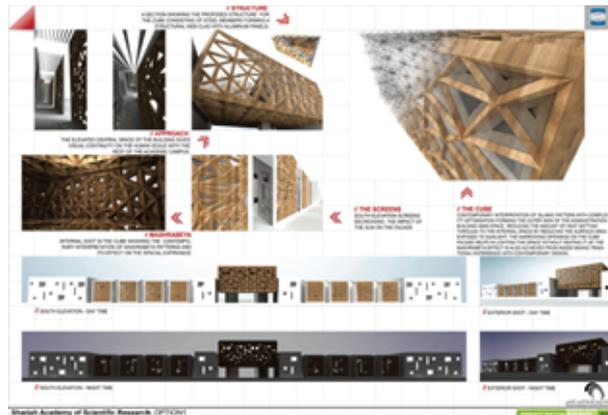


Figure 9: GHD, Central building.

2.2. China

China has a long history of education from the teaching of Confucius from over 2,500 years ago, and with the foundation of western style universities at the end of the 19th century for example Beijing University. The recent focus on higher education, and the international joint venture universities combined with a goal to increase international student numbers to surpass the British international students proportionally, is at the heart of the higher education scene in China. New campus developments focus to reflect innovation and modernity through the chosen architecture.

XJTLU new campus in Taicang is following the successful setup in Suzhou. The end-user being XJTLU the client to the architect is the municipality. The design of the campus was decided through a design competition, HPP was awarded the design. Series of 3-4 meetings were held between the end user, municipality and the architecture firm. The design is equal in size to the Suzhou XJTLU campus, the design is inspired by the syntegrative educational model diagram, with a series of main school buildings, central public buildings and park and adjacent sport and student residential facilities.

The new campus will provide a platform to launch the next generation of higher education knowledge transfer platforms that link between academia and industry, preparing the next generation of graduates to be practice linked, innovative and adaptable to be ready to face the challenges of the next generation. [[8]]

3. Commonalities and Divergence

Common between both developments is that both the emirate of Sharjah and Jiangsu province are re-known for their cultural and education developments through their history. A recognition of education and research are the key factor to ensure economic

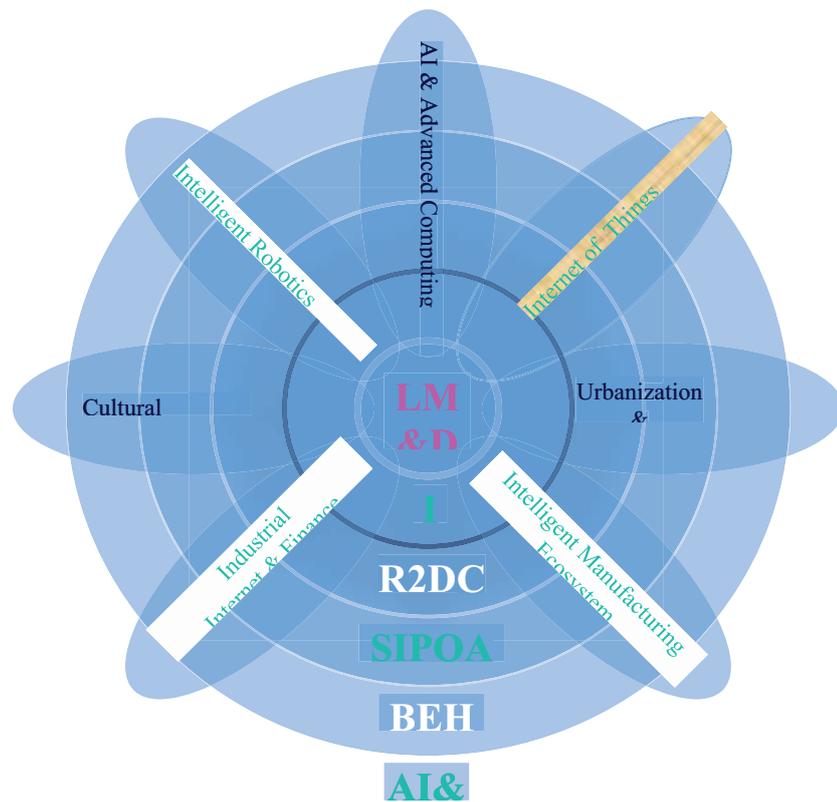


Figure 10: Diagram of XJTU campus [[7]].



Figure 11: HPP XJTU Taicang Campus design XJTU, Taicang 2018 [13].

growth and long term economic stability and flexibility is another key point in both fast growing and expanding nations. The business relationship structure of architects, client local governmental and end user being the university itself is similar. The size of the developments are comparable between the Sustainability Campus design in the UAE, RIT-D in Dubai and the Taicang development for XJTU in China. In both cases the governmental entities are selected top architectural firms.

In the UAE the architecture firms were directly appointed and met weekly with the client and end-user, weekly, whereas in China the architecture firm was selected via a competition process and the client, end-user the architecture firms rely more on their experience. The project is developed in fast track via BIM/ Revit in a cross disciplinary manner that allows cost and design control throughout every single stage of the development. In the case of RIT-D the end user i.e. RIT-D managed to convince the government, instead of the initial appointed designer, to switch to their in-house campus design team that resulted in more of building rather than architectural design in the end.

In China, typically architectural firms are developing the conceptual design development at which stage the projects are typically handed over to a local design institute for detailing, tendering and construction supervision, which is one of the main reason for detailing being not to international level since the team changes from a selected VIP office to a semi government – commercial orientated enterprise. This fact combined with up to now only very limited use of BIM and REVIT which could provide more commercial and up-to-date detailing and cost and design tracking and more efficient interdisciplinary design development, leads to currently fast project development but not necessarily as efficient nor to the international standards in regard to detailing, sustainability or longevity of the projects due to issues of maintenance that are overlooked by the design to construction translation approach. The fact that the architects' firms are merely paid for the concept development created in this particular instance a low commitment to tailor the project to the end user and merely focuses on the fulfillment of the clients set out agenda.

4. Opportunities

The time and cost spend in purpose adjusting a design no doubt reduces the profit margin of an architectural firm versus design a contemporary archetype. In the view of academia and architecture it is always preferred to tailor a project as closely as possible to the end user unless the projects demands an ongoing flexibility for use, BIM / Revit is a true enable for this and the regular meetings in the UAE ensure this.

...'Design needs method. The starting point for each design is the needs of the future user, the environment and the client. The art lies in combining these requirements with the technical and functional requirements (legal certainty / planning approval, technical feasibility, ...) and developing an excellent architectural solution therefrom.'...[[9]] as

Antonino Vultaggio, partner from HPP states; ...'In the end, there is only one thing that counts: producing an excellent architectural solution.'...[[10, 11]]

Utilization of BIM /REVIT would enable China to better translate the design to project situation and negating the impact the change of design team from Concept to development design no doubt has so far resulting in a building design rather than architecture design focus.

The divergence from an observation point of view is that in the UAE the focus on iconic and branding seems to be in the foreground achieving a legacy of education. In China the symbolic innovation and future role of education stands in the foreground taking the design of the campus from the diagram of the campus mission, reflecting future society and is proud to be contemporary. Architecture as a mirror of society reflects and deflects. The difference of the architecture will inform the graduates and base setting can only be compared in a retrospective.

Acknowledgement

I would like to thank DPW, Sheikh Khaled Bin Saqr al Qassimi, AUS, DPW, GHD, HPP, Polis Front Architecture (Gergely Csikvari, Noor Alarcon, Raya Saad, Islam Mohammed Hassan, Mona Azadian, Abdulrahman Hadid)

Conflict of Interest

The author has no conflict of interest to declare.

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