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Bachelor in Architecture, UIA, Puebla, Mexico
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MEXICO: RE-VISITING MODERNITY

Re-thinking Social Housing from Mario Pani's Urban Utopia

Since early last century social housing development has taken place in the midst of a slow historical evolution almost uninterrupted. Various transformation processes resulted in different ways to understand it and inhabit it. This development came into being, together with the evolution of cities and expanding the territory. Historically the social housing and the environment had an essential role in the arguments of the architects of CIAM, as they were considered as the core of urbanism as a social cell.

The fact that the urban project of the modernity impacted a bit late to Mexico, there made it coincide in its beginnings with the decay of the postulates of the international style, which transformed Mexico City towards urban development, regardless of the fact that, in the subsequent years it was temporarily considered as a crime of the modernity.

Finally with the passage of time, apparently it was not.

While at present Ellen Dunham - Johnes raises the concept of retrofitting suburbia in The United States, and in Netherlands is proposed the concept of the urban densification with; Netherlands Fabulosly Compact. In the particular case of Mexico City, I try to respond the problematics of contemporary social housing; taking Mario Pani's concepts as a point of reference In a Mexico that inhabits the present, redefining modernity.

Though Josep Maria Montaner affirms that the modernity has been left behind, the links that tie us with last century continue being of usefulness for the formulation of new paradigms that give response to the challenges that collective contemporary housing is facing.



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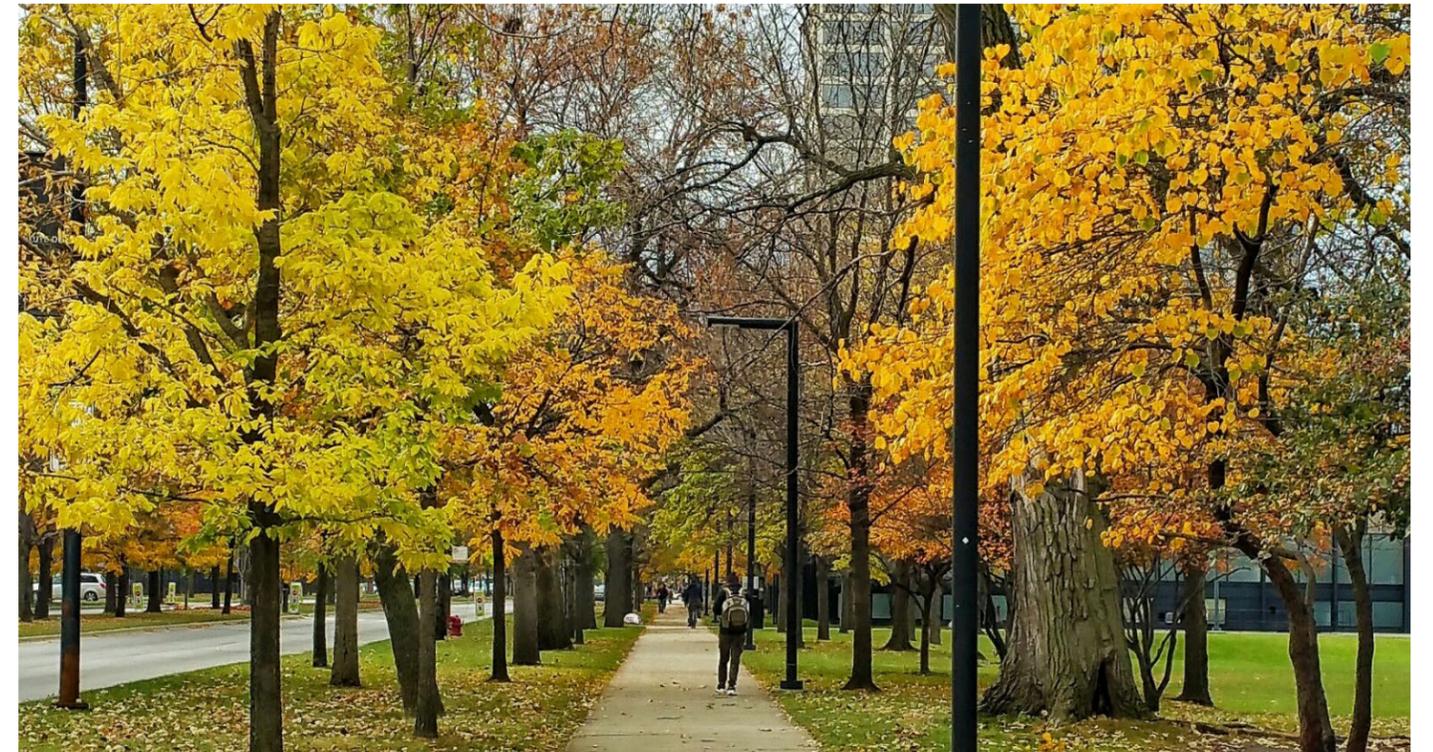
Master of Landscape Architecture, Illinois Institute of Technology, USA

RESEARCH INTERESTS:

Biophilia, Restorative Environments in Urban Settings, Mediums of Nature-Simulation, Transitional Cultured-Nature, Humans' Responses to Environmental Stimuli, Stress and Restoration, Observations and Interpretations

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Photograph by Ahmed Hassan 2015

TRANSITIONAL CULTURED-NATURE

The Role of Biophilic Restorative Environments in Stress-Reduction Among College Students

College students are vulnerable to many stress-related stimuli during their higher education years. Stress levels among college students are serious: according to the American College Health Association (ACHA) - National College Health Assessment (NCHAII) (2014), the overall level of stress was rated as more than average by 43.2% of undergraduates and 47.4% of graduates, and it was rated as tremendous by 10.6% of undergraduates and 13.8% of graduates. This critical problem not only decreases students' academic performance (ACHA-NCHAII 2014), but also causes several health conditions due to stress association with serious symptoms ranging from emotional distress, muscular pain, stomach agony, and headache to the severity of suicide and violent behaviors (APA 2011). Considering the evidence-based physiological, psychological, and emotional benefits of humans' contact with nature and mediums of nature-simulation (e.g. Ulrich 1993–2008;

Loftness and Snyder 2008), biophilic restorative environments are desperately needed to mitigate students' stress and maintain their well-being. Academic campuses, by their natural, physical, and spatial qualities, may either provide these restorative opportunities or intensify students' stress. In view of the proven benefits of contact with nature as a restorative "positive distraction" (e.g. Ulrich 1991–2008) and the "social ecology of stress and restoration" (Harting and Kylin 2003; Harting, Bringslimark and Patil 2008), this research studies the potentials of transitional cultured-nature to function as an on-campus biophilic restorative environment by investigating its ability to reduce students' stress. In the context of academic campuses, mediums of transitional cultured-nature are not destinies by themselves; they are the intermediate outdoor spaces that emerge from both the fabric of the built environment and students' cycles of activities during their college life.



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EDUCATION:

Undergrad Degree, B.Arch., 1995-2000, Damascus University, Syria.

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RESEARCH INTERESTS:

Tall Building technology, Investigating the limits and possibilities of integrating local urban Identity within the contemporary aspects of tall buildings

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RECONCEIVING VERNACULARS

The Integration of regional urban patterns within tall building design, towards achieving a sustainable development (A vertical perspective of the city image)

Developers and City Regulators remain the leading stakeholders in tall building development, yet local vernaculars should not be overlooked, nor the necessity of regional “urban life” should be denied.

The research will first investigate the current design potentials and limitations against the Structure/Architecture interdisciplinary approach, in order to select applicable vernacular patterns within tall buildings as a “Vertical” urban entity. Then it will investigate essential legislative and market terms such as; Setbacks, FAR, GFA and GCA, footprints, Height Limitations, Building Facilities, Parking Requirements, fire and Life Safety, and their impact on the subjective sustainable planning.

The research will propose possible incentives that the regulator can offer developers and planners to overcome the boundaries of construction cost, business needs, profitability and market rational.

Furthermore, in view of the leading role of the structural systems for tall buildings during the decision-making process of design, the research will also investigate the applicable

architecture vernaculars in general and adoptable urban patterns in particular within the framework of structural and construction rationales; the area of investigation will include some of the following area in Tall buildings:

- The Definition of Urban Identity and regionalism and its relevant vertical application (for office building, for Residential buildings, for mixed use!
- Long Span structure in tall buildings for Atria, podiums and courtyard typologies
- Superstructure for Vertical urban spaces, landscape experience and vertical transportation (Nodes, paths edges and landmarks)
- Parameter structure for porosity to light, heat, air and breeze
- Construction Materials and techniques for a passive approach in building systems.
- Optimizing density, Demography and built-form aspects for city resilience! And finally:
- Legislator incentive’s; (rethinking the politics of space and building regulations (Setbacks, FAR, GFA and GCA) Height Limitations, Facilities, Parking, and Egress).



ANAT MOR-AVI

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Practical Architecture- Israel 1984
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Empowering learning and working environments.
Architecture as an educational generator.
Space stimulates creativity.
The third teacher

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ARCHITECTURE FOR CREATIVITY

The evolvement of Lexicon for empowering learning & working environments

These days, when the relationship between the learning environments and k-12 students' academic achievements has been demonstrated to be intrinsically linked, an important link by educators is being established between education and architecture.

The drive of today's globally education system is to encourage creative thinking and empower the student as an individual. Innovative, democratic and active learning should be supported by groundbreaking and innovative environments, which empower and stimulate learning and become tools in the hands of educators and students.

The new paradigm of learning instead of teaching encourages the development of new, non-traditional patterns in designing educational and professional environments. Moreover, in our modern, technology-filled and interconnect world, there is growing need for creativity and collaboration.

The aim of the research is to offer a new perspective of understanding recent changes in school design and working environments terminologies by reviewing their

development over the years and analyzing potential future trends in the field.

These recent changes have a cultural and social impact on our global society and will be explored through different lenses while focusing on several major concepts as bonding with nature, freedom, collision and collaboration.

Therefore, this analysis will contribute to the understanding of the potential role of architecture by suggesting new approach to rearranging the school structure and the terminology to reinforce collaboration among all members of the community, empower the uniqueness of each learning environment and create more opportunities for creativity.

My goal is to form a set of non-traditional, innovative design patterns which lead to the creation of spaces that encourage empowerment and intellectual growth.



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COMFORT IN TROPICAL HIGHLAND CLIMATES

Improvement of housing quality through courtyards in Bogota-Colombia

This dissertation studies courtyard buildings in Bogotá, Colombia. As deficit in the quality of new social housing test current solutions, residential typologies based on courtyards can be thought as solution for improving indoor environmental standards.

In Bogota, due to the absence of regulations, poor indoor conditions of thermal comfort are commonly tolerated. Therefore, housing units are characterized by insufficient living and open areas, with no possibilities of expansion for users who suffer of overcrowding and cohabitation.

Courtyard residential buildings are studied in the context of a temperate climate like Bogota (4° Lat. North 2600 m a.s.l.- 8530 ft a.s.l.), where daily ranges are more significant than seasonal ranges: the daily variation in temperature can range from 68° F (20°

C) during the day to 37° F (3° C) at night. If typologies based on courtyards for new social housing in Bogota are implemented, then better indoor environmental quality and higher occupant satisfaction will be achieved.

Without previous studies related to thermal comfort in residential spaces in Bogota, this research explores the performance of a typical housing social units through data logger measurements and surveys. Based on this experiment, physical and digital modeling area carried to imagine sustainable developments based on courtyards that can guarantee appropriate indoor conditions and meets the demand of urban growth and energy resources.



CYNTHIA VRANAS

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THE ARTS AND THEIR INTERRELATIONS:

ARCHITECTURE, MUSIC AND DANCE IN THE 19TH C. FRANCE

Dance, music and architecture are distinct forms of art that have influenced and complemented each other throughout the centuries. Their paths of evolution have overlapped, dissected and diverged, and it's within their dynamic interrelations that we can gain important insights. They can reveal how political, social, economic and religious conditions can largely shape artistic expression, but they can also show us how the arts have influenced each other in profound ways. In the design and construction of the Palais Garnier (1875) we see all these dynamic interrelations come to life. Built during a time of great upheaval, the Palais Garnier reflects the social and technological advances of the age, but also displays dance and music's new emphasis on fluid lines, expressive emotion and the collaboration of many art forms to achieve a greater artistic result.

I believe this research will reveal important relationships between the arts, and unearth connections that have influenced their growth and stylistic changes. If we accept that behind a superior building, ballet or piano piece there is an organization – perceptual, emotional and constructive – it seems evident that tracing their evolutions and comparing their influences will sharpen our understanding of architecture and these arts. My hope is that this new information will encourage collaboration between artists, and address the way architects understand theater design (beyond a historical survey). My focus is on all aspects of theatrical presentation: stage and set design, lighting, acoustics, theater shape, and its décor, as a series of relationships influenced by dance and musical score – all of which can enhance the experience for the audience and the performer.



DAN WHITTAKER

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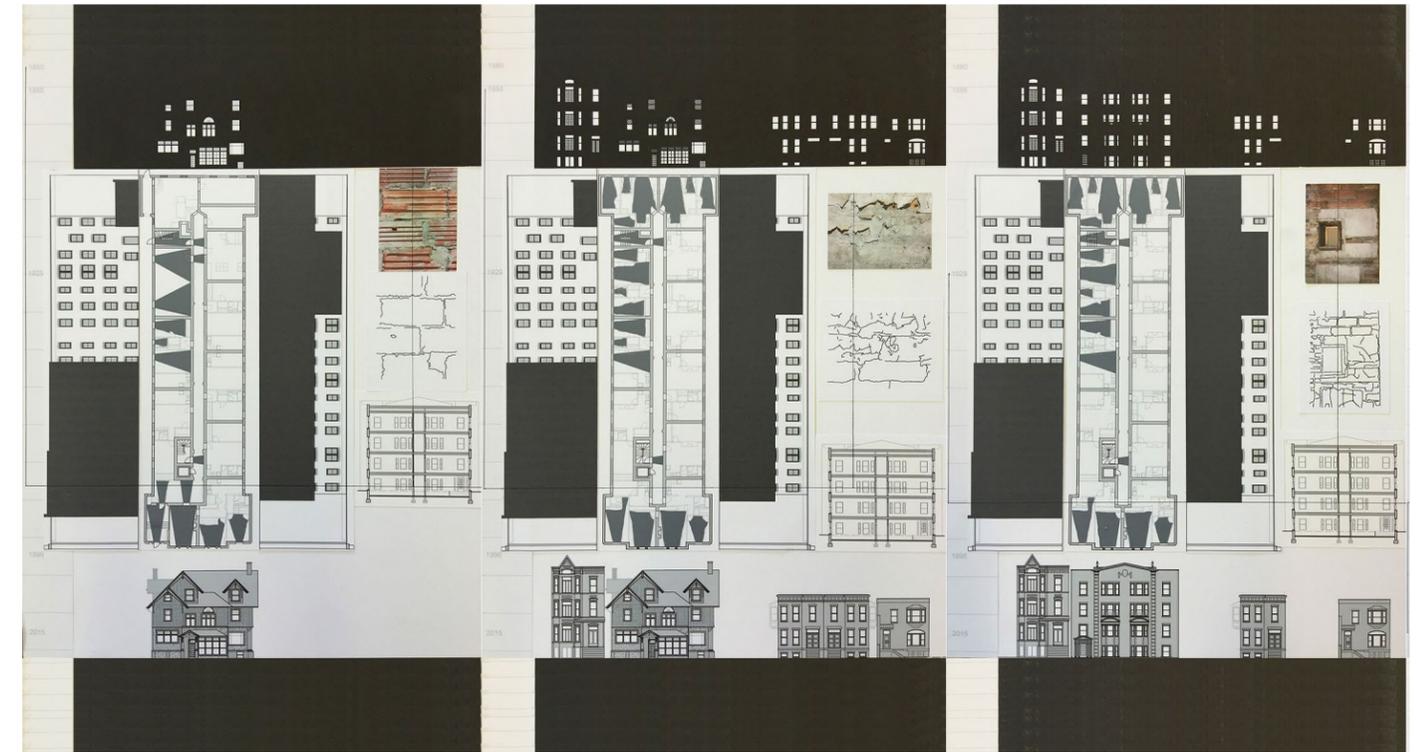
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ARTISTIC PROPRIETY AND EXCLUSION

The Insatiable Allure of the Rarified Anti-Contextual Object, A Society Star-Architect and the Future Development of the Private Museum in Lincoln Park, Chicago

Totemic objects provide tangible evidence marking the epitome of what was valued and celebrated in past civilizations. Contemporary repositories of collections of these fragments attempt to re-tell forgotten stories and occasionally address suppressed narratives for the edification of the visiting voyeur. The traditional rôle of the institution of the public museum has been put into question as new private gallery spaces have entered the res publica and displaced orthodox methodologies concerning educational control over the dissemination of history, long-held by the establishment as sacrosanct. The dissolution of clearly defined boundaries between nations and colonial-era ownership claims by states versus museums blur the intentionality of assertion of expertise- and thus control- over objects bearing representations of knowledge of the past. This obfuscation of realities of contemporary provenance and possession has resulted in conflicts

concerning explorative versus exploitative procurement of historic artifacts, removed from one public domain for alternative examination in another, typically more economically resourceful and lucrative private dominion. This thesis explores the broad range of issues the private gallery is subjected to when entering into the foray of the public domain. Specifically, the pragmatic, programmatic and tactical issues are explored for the purposes of creating a theoretical framework for the emergence of a new institution containing artifacts from displaced civilizations with ceremonial practices no longer prolific in original situ. How shall a new era of propriety reign in a transitional space traditionally held to be anathematic to the passage of time? What relevance does a private repository of antiquities have upon the enlightenment of a population far derived, and some would argue, far divorced from entrenched nationalism embodied in today's pluralistic society?



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DAYLIGHTING IN RESIDENTIAL HIGH-RISE

An Architectural Approach to Energy Efficient Building Design in Chicago Loop

Climate change has become increasingly apparent today. It is obvious that there is an effective relationship between climate change and urbanization. Manmade contributions to the climate change in urban areas have been altering the chemical composition of the atmosphere. This global problem, which has been recognized universally, causes the air quality corruption. Since the average temperature goes up in the world, it effects ice sheet melting, precipitation change, and sea level increases, all of which threatening to world-wide public health.

One of the most important reasons of the climate change is the increase in CO₂ levels due to emissions from fossil fuel burning and energy consumption because of daily human activities. The increase of energy consumption in residential areas displays the necessity of energy conservation. People who have an active

role in building projects, particularly architects and designers, are responsible for achieving this necessity. Efficient solution methods should be suggested with proper material and construction components. Also, energy efficient design will reduce and prevent excessive use of energy in our daily life.

This research tries to achieve the following goals such as to improve the total energy performance of residential areas, to maximize the presence of natural light in the space, to reach the optimum daylighting strategies, and to integrate them into all building control systems while maintaining visual comfort.



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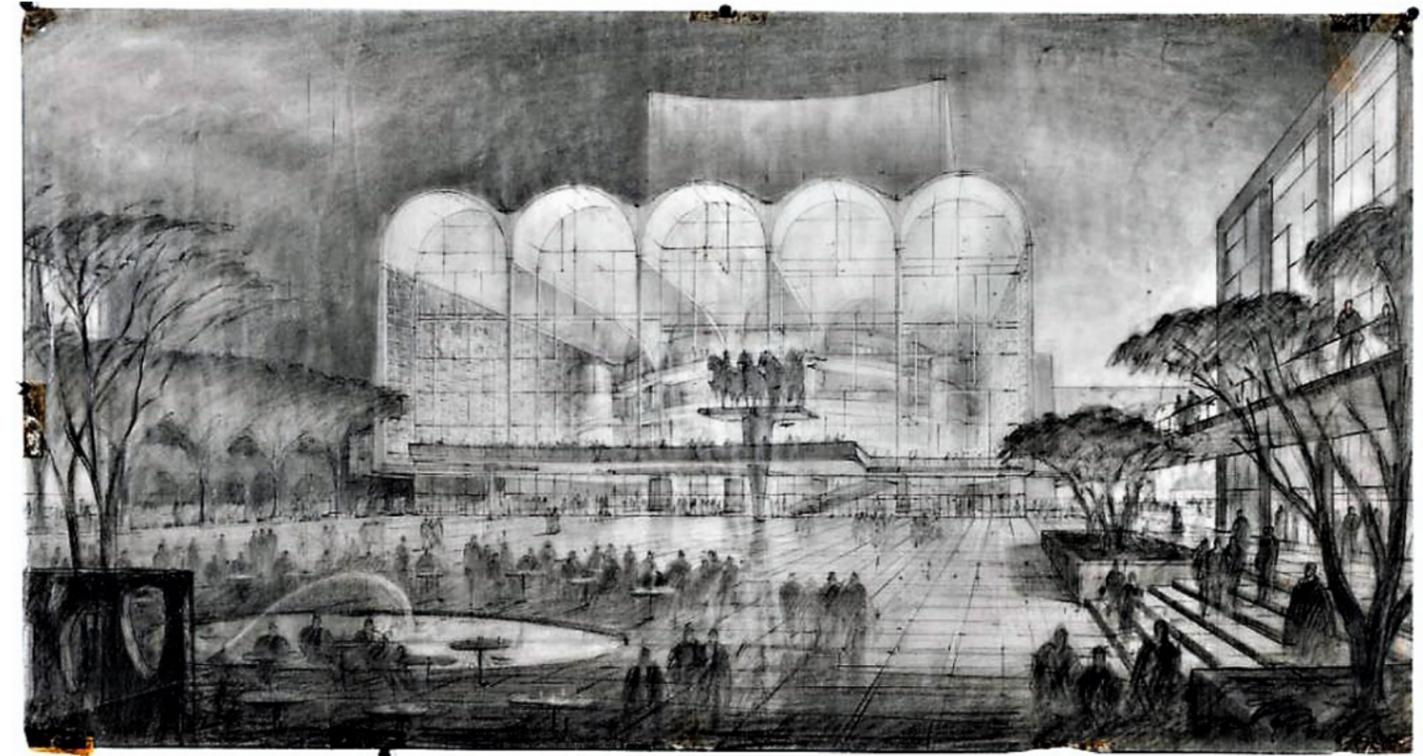
M.Arch, Theory, History, and Criticism of Architecture, PROPARG-UFRGS, Brazil

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Wallace K. Harrison, Modern Architecture, Monumentality, Baroque, Brazilian Modern Architecture, Postwar History

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WALLACE K. HARRISON

Modern, Monumental, and Baroque, with special attention to a Brazilian Connection

Wallace K. Harrison (1895–1981) was an American architect rewarded with the AIA Gold medal in 1967. His works are mostly concentrated in New York, and especially funded by the multi-millionaire Rockefeller family. The instigating part of his career happened when the values of modern monumentality were incorporated, and translated afterwards, on his towards distorted shapes, artisanal materiality, and a paradoxical intimate expression.

There is a slight reinterpretation about the monumental during the euphoria and anxiety that pervades the postwar period, in which apparently the controversy baroque technique and reinterpreted vernacular housing spatialities seem to be enlightening suggestions. An theoretical emphasis on the Brazilian modern architecture is constructive due to its notoriety and approximation with the American architect, which still relies mythological, or superficial at least, on historical discourses.



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HIGH-RISE IN COM- FORT:

Enhancing the Performance of the Building Enclosures through Integrating the Passive Solar Parameters Towards Sustainable Vertical City, the Chicago Loop.

In the years of the pre-modernization, architects was designing a place for dwellers' comfort in natural ways. But, in the years between the First World War to 1980s, architects ignored the environment from the built-environment. So, the emitted carbon dioxide into the air became dramatically the permanent gradient of the cities. However on the eve of 1970s, the oil crisis warned planners to change the way of building a building. This time was reconciling of architects with nature took the vernacular lessons from the past and utilized them across whose designs. According to the US Energy Information Administration (eia) in 2013, "homes built in 2000 and later consume only 2% more energy on average than homes built prior to 2000, despite being on average 30% larger." This report clearly indicates the significance of the lifestyle conduction versus sustainable achievements throughout the last 3 decades. Although the ghost of the incorporation age and materiality culture is beyond than a shadow

to be immediately lightened, some efforts under sustainable attitudes are so thought-provoking to be tracked deeply for keeping whatever we could do. In carbon dioxide emission, the residential sector is located on top of the list of greenhouse gas producers (42%). To decrease the percentage, controlling the building envelopes through design solutions is desired. In doing so, the passive solar systems, solely, is not able to solve the issues in economical ways. So, integrating the technology into these systems applies a new method in creating the bigger matrix of parameters. This research aims to develop the methodologies have been initiated before to enhance the performance of the enclosures through passive systems in highly dense district of the cities. As the vertical urban legendary in the US, Chicago loop has been chosen for this study to share the outcomes with follower communities throughout the globe.



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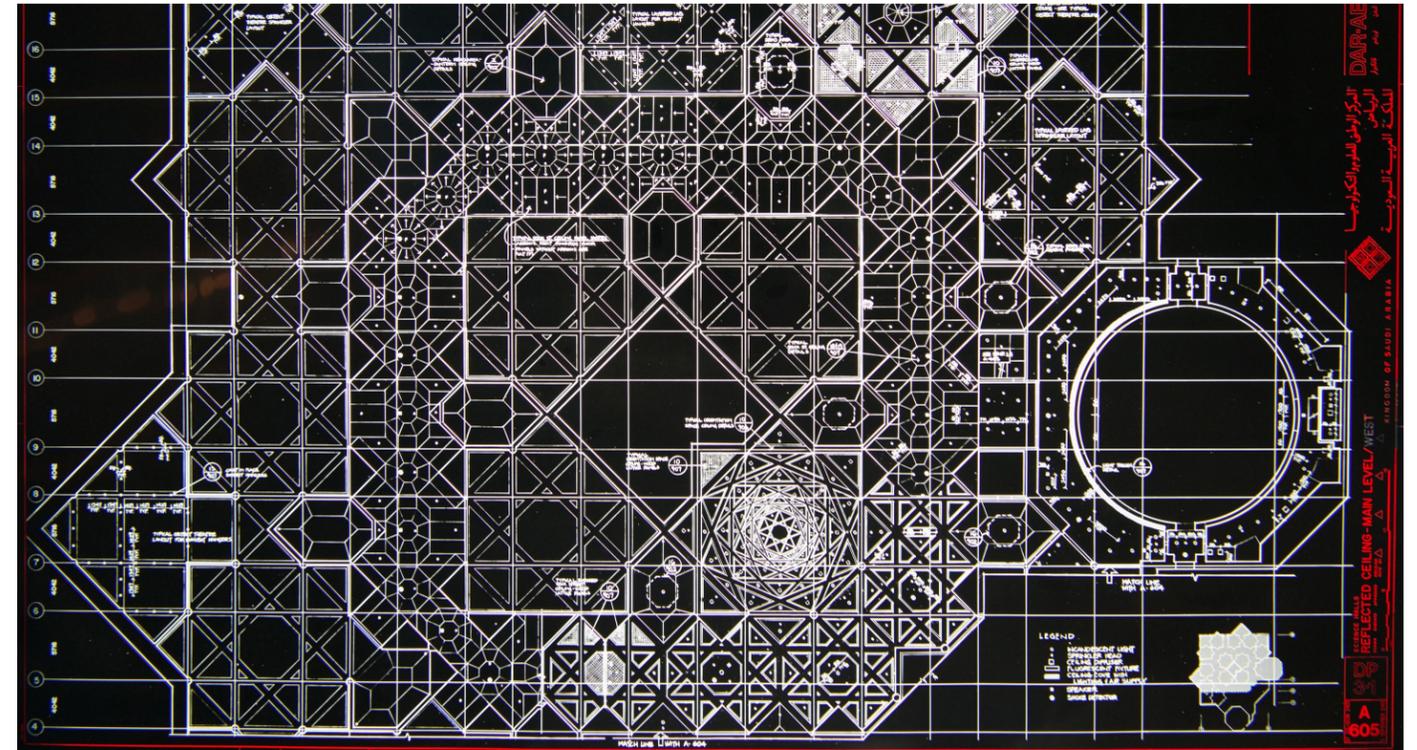
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MODERNISM IN SAUDI ARABIA

North American Exchange of Oil and Architecture 1963-1985

Facing the construction recession ensuing from 1973 energy crises, North American architects sought to find opportunities globally. This strategy was not unlike that of oil companies when they realized demand for oil for industrial nations is bound to increase. In both instances, the global point was Saudi Arabia which was among the chief architects of OPEC. The capital that flowed into Saudi Arabia following OPEC oil embargo was employed to embark on a major wave of modernization, predominantly at the hands of north American institutions. North American architect practicing in Saudi Arabia had to overcome serious technical and cultural challenges. However, the institutional and physical infrastructures laid down by American oil companies, north American architect found a more suitable environment for their practices in Saudi. Modernist Architect who were interested in revising the project of modernism and expanding its vocabulary, found an

interesting elements to work within the Saudi Arabia Context. Sandboxed from western media exposure, Saudi Arabia provided an experiential ground to explore matters of global practice, representation national identity, interpretation of varied regional subcultures with their own vernacular architecture. How modern architecture in Saudi is related to institutions, practices and influence of the Saudi-American oil industry? How that relationship and the practice of architecture in Saudi between 1960s and 80s translated to the practice and disciple of architecture? My dissertation explore these question within the charged socio-political climate of the period and the context of revision of architectural modernism.



MOHAMMED ALI KHESROH

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ENGAGING AUTONOMOUS SPECIES

A study in the search of a new autonomous construction method to serve as a new design methodology in extreme environments.

The research describes an iterated system, which explores the concept of a surveying, deploying, self-assembling robotic swarm system within an extreme environment, in a virtual robotics platform named, VREP. The pure geometries that are the basis of this species, through study of locomotion in Fauna and energy transformations, produce several iterations of the proposed robot. The created species are used to generate a process in which the robotic swarms are able to make initial scans of landscapes using a series of visual and proximity sensors attached to each exposed face, in order to determine proper deployment zones for the making of a research facility. The explorations in locomotion and transfer of potential to kinetic energy would allow the geometrically pure robot to hop, flap, walk, flip or turn in order to move to achieve the desired location.

The intent of such swarming nature of the robots is to create cohesive unit of operation that is able to overcome the journey of deployment and remove the need of site surveyors and construction workers in order to initiate and construct a research fa-

cility. In that manner, the robots then would become the very building blocks that constructs these research facilities and are able to be repurposed to meet certain environmental concerns such as a light construction footprint, reusability and the provision of certain amenities.

With SDA (Survey, Deployment and Assembling) robots, the research will explore the steps needed in order to attain a functioning process from landing and deployment, to surveying and construction; encompassing difficulties and potential opportunities of this proposal.



KARL HAKKEN

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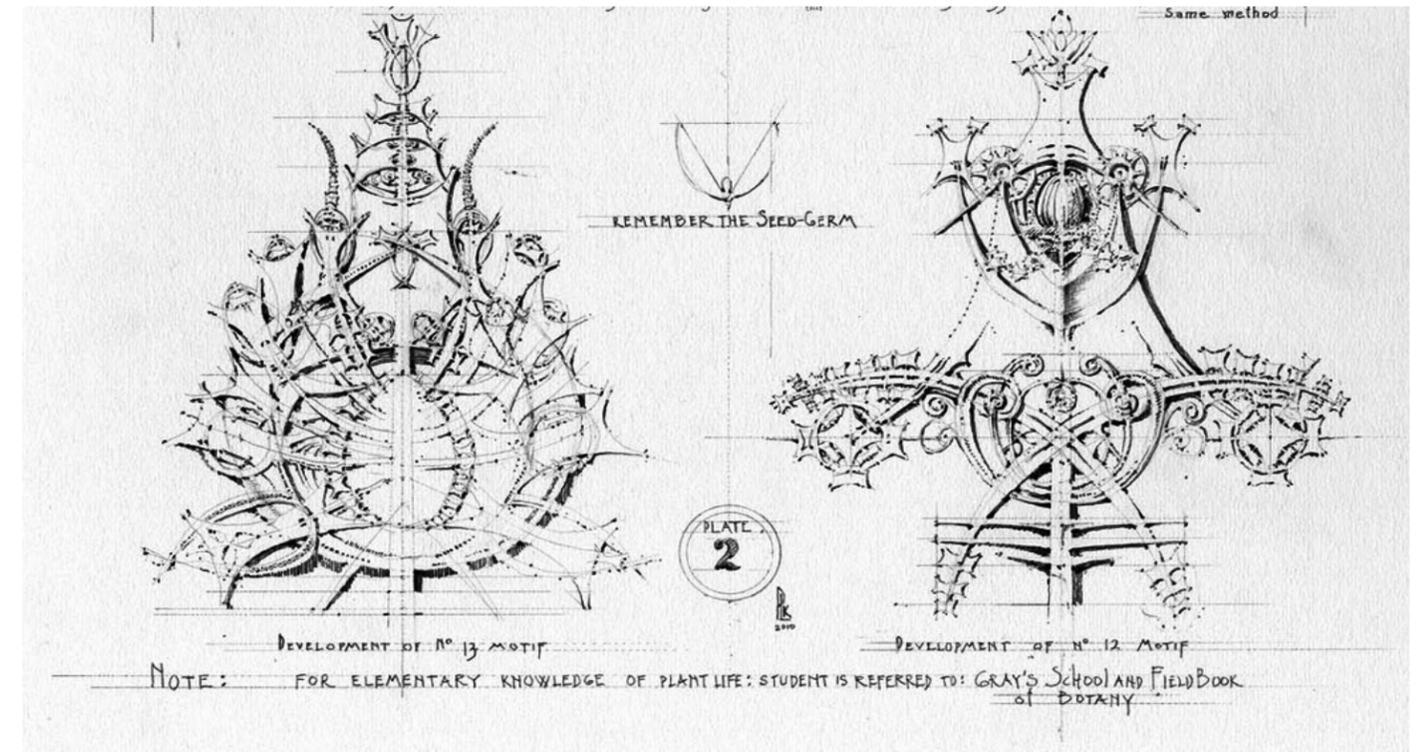
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DARWIN'S ARCHITECTS

How the Theory of Evolution Shaped the Chicago School of Architecture

The naming of epochs has been one of the primary functions by which scholars have made broad distinctions among modes of experience at least since the beginning of the era that we collectively identify as modernity. What is perhaps most interesting about our definitions of epochs is not merely that we all agree to act as if they exist, but that, once established, they are largely taken for granted as part of the broad intellectual lingua franca. One can talk about modernity in art and architecture and assume that, even if they aren't entirely the same, they have much in common with the project of the modern nation state, or the reality of modern appliances, or "Modern Love" (both the subject, and the David Bowie song of the same name).

This is a book about the last time we were certain about an epochal change occurring. Depending on what you believe, It may be the beginning of our current epic, or the beginning of the one before. We largely agree that, thanks largely to the doctrine of Pax Britannia, large parts of the rest of the world, the Victorian era did

occur, and it is most certainly over at some point in the early 20th century. We also largely agree that something called the modern era followed it. Still, we disagree as to whether or not that has been replaced by the Information Age, or one of a variety of other names, like globalization, that still have some currency in contemporary discourses.

This particular semantic distinction, however, is of central importance for what we see as the direction of our collective experiences both then and now, and equally for our aspirations for them in the future. In the practice of architecture, it has been there has been consensus since the middle of the 20th century that architecture reflects the spirit of an age, and may be a signpost on the way to the world changing. Whether that belief is merely a posture endemic to the modern era or it is a facet of architecture that we discovered during that period is a vital question.



NADIA SHAH

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BARCH-Pakistan 1999

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YASMEEN LARI-

Social Sustainability Through Architecture

When people build for themselves we see unique outcomes generated from the builders' efforts and mutual collaboration. This happens due to improvisation based on limited resources, skills, materials, and culture. In such situations we see exemplary cases of adaptation and reuse due to scarcity. These individual acts of construction may appear to be haphazard, but in reality, are innovative responses to actual demands. The emergence of such cities through this incremental design approach sets the basis of 'incremental urbanism', as mentioned in some related literature. The study of 'incremental approach' to planning looks at cities as large complex organisms (systems) composed of smaller components, emerging from the way people shape their habitats within human capacities.

My interest in architecture that evolves from human

situations brings me close to the works of Yasmeen Lari, the first woman architect from Pakistan. Lari, after leaving her very successful architecture practice in the city, has built over 45,000 disaster relief structures since 2010. Her use of vernacular building techniques and materials allow the inhabitants to build for themselves. Lari stresses the importance of local involvement on a physical and material level. A monograph on Yasmeen Lari will allow me to discover the architectural possibilities that emerge out of human needs organically and gradually.



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PARADOX IN DEVELOPMENT

Political Economy and Tehran's Socio-Spatial Transformation

Tehran never experienced the organic rhythm of development. This process along with changes in the economic and political conditions of the country has been the dynamic force of dramatic transformation of the urban socio-spatial pattern. This study seeks to address the contradictions, difficulties, and paradoxes that this transformation embodied. Economic prosperity resulted from oil income made possible the extensive program of urbanization and rapid growth of regional business. In the oil-based economy of Iran, the modern city was to facilitate new landscape of consumption adopted from western lifestyle and consumerism culture; in doing so, a revolutionary attitude and radical reforms was imposed on the traditional society in order to legitimize political power and accommodate commercial markets to make the city as a machine for profit. A new architecture and urban form were identified, with modern materials and a variety of patterns inspired from

the art of the past as well as modern influences. However, the dramatic changes in the city, was not an absolute departure from its past traditions, in many cases shows snapshots of paradox and introduces a hybrid form or a third Spaces of the past and present which are interwoven with each other in terms of both materiality and spirit. This study will focus on whose symbols –planned public spaces, city centers, mixed-use tall buildings– and their immediate urban context as well as in the broader metropolitan area where extrapolated at the focal point of Tehran's socio-spatial transformation.



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B. Arch, King Fahd University of Petroleum and Minerals,
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RESEARCH INTERESTS:

Architecture, Contemporary Urbanism, Urban Planning,
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RIYADH: A NEW URBAN MODEL

An Alternative City-Making Process That Will Overcome the Urbanization and Globalization Challenges in Saudi Arabia

The purpose of this research is to identify new urban models for the city of Riyadh, Saudi Arabia. Riyadh is the capital city of the Kingdom of Saudi Arabia with a population of about 5.7 million and a total area of 1,300 sq.km (500 sq.mi). Moreover, according to the World Urbanization Prospects, the population of Riyadh will reach 8 million inhabitants by 2050.

The goal is to investigate alternative city-making processes that can overcome urbanization and globalization challenges. The research will analyze the contemporary urban planning and development processes of Riyadh. In fact, during the past half-century, Riyadh went through a rapid urbanization in search of modernization. As most of the cities in the Arabian region, Riyadh was planned based on western urban planning concept which was known as the Doxiadis Plan. Also, a major drawback was the exclusion of geographic context and local cultural values which should

be part of the urban development. Also, the research will question social, economical and political issues related to contemporary urbanization.

The main question is how a new urban theory can be drawn from the contemporary urbanism in Riyadh, and what are the future urban challenges and opportunities. The new model should be sensitive to regional urban form as a universal urban model is not applicable.



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RE-VISITING THE TRA- DITIONAL SAUDI HOUSE

A New Approach Towards Social and Cultural Sustainability in the Designs of Contemporary Living

Throughout various historic periods of the Middle East, the construction of the built environment has been a result of progression in sociocultural values, religious context, political framework, science and technology, and the progress of society as a whole. In developing countries, like Saudi Arabia, which have been experiencing a rapid rate of urbanization, sustainable concept intervention is essential due to the scarcity of resources. On questions of Saudi identity in the development of housing design, in many cases, this process has meant the inclusion of “foreign elements”; these elements are layered onto the architectural object. The gridiron street pattern and the detached villa-type dwelling unit were introduced into Saudi Arabia, representing the contemporary style of houses and neighborhood design. This new foreign style was originally developed and applied for countries other than Saudi Arabia and which has different climates and social

needs. The prevailing attitudes toward contemporary dwelling has not developed naturally from the traditional concept of conventional Saudi houses, nor has it developed or improved over a long period of time in accordance with regional, social, and cultural needs, which led to absence of social and cultural sustainability implementation in the design of contemporary Saudi houses. In fact, social and cultural sustainability is perhaps the least explored within the mainstream development literature (Galal, K., 2011). In order to protect and improve the quality of living, which lies at the heart of the interaction between the environment, economy, society and culture, this research seeks to re-think the design concept of the traditional Saudi house and highlight its distinctive characteristics and principles as a new approach towards social and cultural sustainability in the designs of contemporary living.



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THE EXPERIENTIAL EDUCATION

The Study of the Students' Learning Outcomes through 2015 IIT Design/Build Project

Design-build courses can create powerful learning experiences for students. This research tries to figure out design-build learning outcomes through the author's observation and the students' interviews about a design-build project conducted in Illinois Institute of Technology's architecture program. Key learning outcomes included: gaining construction knowledge, skills, and values; integrating design with construction; engaging with "real world" problems; developing personal qualities and interests; improving their transition from school to work; Learning and considering others; and sensing architects' social responsibility.

Learning outcomes may be closely linked to the hands-on, holistic, "real world," and collaborative qualities of design-build courses. Additionally, in this particular case, the experiences of anticipation, working together and seeing tangible results appeared significant to the students' experience. Viewing design-build from per-

spective of students creates a compelling argument for how valuable and rewarding design-build education can be. Students experience a wide variety of learning outcomes, and the emotional investment of the students had a large influence on their experiences.