

Biophilia in Architecture for *Better Living*.

https://**competitions**.uni.xyz



Img 1: A representative image of humans' innate desire to connect with nature. Source

Premise

The Biophilia hypothesis outlines a fundamental tendency in human beings to be attracted to nature and emulate its processes and structures in everyday life. More broadly, human beings subconsciously seek connections with other forms of life, due to our evolutionary dependence on it for survival and personal fulfillment. How this idea is relevant in daily life can be seen in the way humans travel and spend money to sightsee in national parks and nature preserves, relax on beaches, hike mountains, and explore jungles.

Some biophilia advocates believe that humans have developed a lifestyle far removed from what may be considered natural, and biophilic design may foster happiness and well-being among us. Thus, when applied to architecture, it is indeed a welcome call for more sustainable and human centric design. This is especially true given the rapidly deteriorating living conditions in cities.



Img 2: An example of the application of Biophilia in interior architecture in an attempt to produce more pleasing environments. Source

Biophilia and Architecture

Biophilia in buildings, when applied correctly, serves much more than mere aesthetic. Especially in workplaces, biophilic design has yielded tangible positive impacts on employee productivity, well being and mental health. It has also been proven to reduce stress and enhance learning, apart from aiding in improving patient recovery times in hospitals, reducing crime rates in residential areas, and increasing learning ability and test results in schools.

Among its many intangible benefits as well, it is believed to have engendered an appreciation of nature and natural habitats in humans.

However, despite the proven advantages, the proliferation of Biophilia as a practice, especially in residences where we inevitably end up spending the most time in our lives, remains severely limited.



Img 3: The Bosco Verticale in Milan, Italy, an example of Biophilic architecture sustained within its relatively concrete surroundings. Source

Issue

Modern lifestyles seem to have not only taken a toll on our mental well-being, but our cities as well. As a result of the density/space paradigm, most of them have transformed into vast concrete jungles, resulting in increasingly reduced avenues for human interaction with nature. Despite its immensely therapeutic impacts, the only building typology that seems to be acknowledging Biophilia's transformative role in building design are workspaces and offices. That too, a select few.

A working individual may be spending a majority of his/her time at work, but their homes are where an individual spends the most time out of their lifespan. Our habitats are where we seek physical and emotional respite. They serve as havens where some of the most important events of our lives take place. However, within the current urban and economic scenario, most of us make do with only a single residence throughout our life, that too one lacking natural provisions that constitute a better quality of life.



Can Biophilic principles in **Architecture** and **Design** aim to improve **quality of life** in **modern cities?**

Img 4: Tacuri House in Quito, Ecuador by Gabriel Rivera Arquitectos. Source



Img 5: The Park Royal in Pickering, Singapore, one example of the many biophilic buildings in Singapore. Source

Brief

The challenge is to design a residential tower with 75 housing units on the site provided, incorporating biophilic design principles. The size of the unit is homogenised to a 2.5 BHK unit (2 Bedrooms + 2 Bathrooms + Hall + Kitchen + Study) so that the design's clear impetus is on biophilia.

The design is intended to improve the quality of life of its residents, while providing them more opportunities to personally engage with nature in a bout to improve their mental health and relieve stress. More so, the design challenge urges designers to look beyond simply designing towers with vertical vegetation. A common misconception about Biophilia is that it is simply designing buildings with greenery. However, it is more than just bringing the outside in. It's about making and strengthening a connection with many aspects of nature through natural light, views of nature, plants, natural materials, textures and patterns, all of which holistically combine to create a biophilic design. This is what the challenge wishes to manifest.



Humans | Nature

The primary function should be to help humans connect more with nature.



Building | Nature

The building should look to reflect the essence of nature in its make, ala form, materials, finishes etc.



Sustainable

Sustainability in design and construction methods is an underlying objective of Biophilia itself.



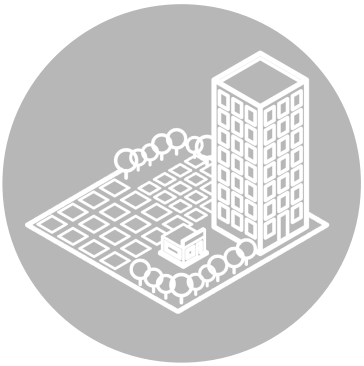
Therapeutic

The building should look at overall well being and rejuvenation of its residents.

Objectives

The above objectives can be a point of beginning to conceive this design. Participants can assume a mixed demographic and family size before initiating their design process.

Site Plan



Residential Tower(s)

The constituent consisting of the residential blocks. Could be one or multiple as long as ground coverage conditions are satisfied. **No restriction on form.**

Services

Municipal provision of water and electricity may be assumed, but local hubs for their distribution (and HVAC units) need to be designated through **block diagrams only.**

Community Spaces

Spaces for congregation (open or enclosed) and community gathering/activities. Need not be detailed.

Landscaping and Natural Features

In keeping with the core concept of Biophilia, open common landscaped spaces need to be designated on the master plan.

Typical Floor Plan



Unit Cluster(s)

A typical, repeating floor plan consisting of a cluster of multiple homogenous dwelling units.

Space Layout

The interior layout of the individual unit with the desired space program (2BHK + Study).

Furniture and Provisions

Their placement and position Indicating requisite usage of the spaces provided.

Vertical Transportation Cores

Including appropriate staircases for emergency egress, and a lift bank.

Deliverables

Participants must note that all site level provisions can be given in a single block placed either on the surface, in the basement (depending on the nature of the function of the facility) or incorporated within the main tower. Additionally, apart from the residential facilities, the rest of the provisions only need to be earmarked/designated on the masterplan and not detailed.



Hong Kong, China

Officially called the Hong Kong Special Administrative Region of the People's Republic of China (HKSAR), the city of Hong Kong is identified as one of the densest cities to live in around the world. The special territory has become one of the world's most significant financial centres and commercial ports. Hong Kong ranks highly in terms of infrastructure development and the Human Development Index, having one of the highest per capita incomes over the world. With a highly sophisticated network of road and services, it is also commonly known as the city with the **highest number of skyscrapers** in the world.



Img 6: Aerial view of the Kowloon Bay

Kowloon Bay

The Kowloon Bay area consists of the body of water and the city named so, located at the east of the Kowloon Peninsula and north of Hong Kong Island. The city has primarily been built on reclaimed land, and the bay too has undergone massive reclamation of land from the sea. The bay was roughly divided into two by the 13/31 runway of the former Kai Tak international airport (closed in 1998 and now occupied by a cruise terminal), jutting out into the sea and occupied by the ocean on three sides. Kowloon Bay Depot, the first MTR depot, is also located in the area.

The area is among the more affluent and prosperous areas of Hong Kong city, and its skyline, particularly near the shore is dotted with numerous skyscrapers belonging to high profile business conglomerates, along with a few housing towers.



Img 7: Aerial view of the site.

Site Plan

The city of Hong Kong has a very high built to open density with a number of skyscrapers in nearly every block, and the site so chosen in the Kowloon Bay area reflects exactly that. The rapid development that Hong Kong has experienced has rendered the city into a concrete jungle with increasingly shrinking green pockets. The site so located thus proves to be an interesting testing ground for Biophilia in architecture. Its proximity to the South China sea and its vantage prove to be perfect to harness closeness to nature for the welfare of its residents.

Guidelines

You have to deliver an architectural outcome on the following site, based on the given outlines.

• Recommended number of sheets/presentation images/boards:

5 (Five) of size **[2362px** x **3544px]** or **[400mm x 600mm** in **150 dpi]** in portrait digital format (**JPEG only**).

Minimum 3 (Three) & **No maximum sheet limit.** Each image should be less than **15MB.** (Do not submit PNG format)

Minimum requisite submission are sheets/boards + Cover image containing:

• Site plan (Compulsory)
• Typical Floor Plan
• Key conceptual sections x 1 (Minimum)
• 3D views x 4
• Cover image / Thumbnail of size 2000px x 1000px or larger in aspect ratio 2:1.
• Answering 6 FAQs #
• This is the link for new file sizes, here.

#The FAQ's have to be answered as instructed in the FAQ document in the 'additional resources folder'.

Deadlines

Discover the competition schedule and deadlines on the competitions page or on this link - Schedule.

Resources

This competition contains additional resources that contains a set of files useful to complete the competition submission. This folder is made available on your profile dashboard automatically as soon as you register.

This additional resources folder of this competition contains: Submission Format files in PSD | AI | InDD, FAQs, High Res maps, High res site images, CAD file of the site plan, and Literature on holistic implementation of Biophilia.

Rules

+ The competitions is open for **students and professionals** from all the disciplines of design.

+ The team limit for this competition is **4 members maximum per team.**

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+ You can register more than one team but they have to be registered separately.

+ Ensure that the final sheets submitted **do not include your name or any other mark of identification**. Your submission is linked to your user account which stands as your identification.

+ This is a design **ideas challenge only.** There is no built commission/realization associated with the problem.

+ In case of publication in yearbook we will reach out separately for selected entries.

Pro-Tips

+ Use exploded views to discuss multi levelled conceptual models better.

+ Mention sheet number on corner of every sheet.

+ Plagiarism of any idea / form / design / image will be disqualified with a notice.

+ All the sheets or images will be viewed on a digital device. **e.g.** Laptop screen or projector. Uploaded sheets or images will not be physically printed for evaluation. The submission hence should be prepared for digital viewing only.

+ Submit JPEG images only. (PNG will not function)

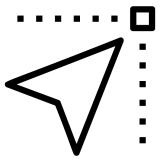
+ Learn



Awards

Grants of up to a total of **20,000$** can be won on this challenge. Learn more about the full conditions on the competition page here.

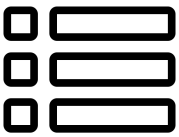
The entries will be judged by an international jury of the competition on the following criterions:



Presentation
The fundamental to a good entry is a good presentation.



Concept/Idea
Quality of thought and intent in pre-design phase.



Spaces/Programme
How the spaces are calculated and ordered.



Design Outcome
The final architectural outcome of the solution.

Judging Criteria

The judging panel can also add other criterions based on their internal discussions - which will be in line with the problem statement. Participants are advised to fulfil above given criterions first in their design.

About

Classroom Competitions™

Classroom Competitions serves as a part of UNI in the realm of **learning and portfolio building oriented design exercises.** It intends to give opportunity to young students to explore their design skills in refreshing problems similar to their curriculum. It aims to bring in challenges based on fundamentals of design education. Classroom Competitions embarks on the idea of creating fundamental design challenges to enhance the learning experience and education. It is a research initiative dedicated to providing opportunities for students of design schools from all domains to explore the ideas that go beyond the restrictions of usual architectural discourse.

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