



hybrid FUTURES

New DEN-CITIES +

Supported by
Digital Blue Foam

DBF

Post pandemic township design competition

<https://uni.xyz/competitions>



Imq 1: An aerial view of a traditionally planned metropolis

Premise

Cities have been a culmination of all the good things we desire to be in a comfortable habitat. This culmination has brought access to not only services but this vast human-to-human network that eventually lead to evolving as knowledge hubs. This **pandemic**, however, has changed the **fundamental perception** of a city in many ways and especially the density it offers.

These times have seen **massive shifts** from a lockdown like environment, that isolated us from the outdoors - to workplace/classroom level shifts of working entirely in remote. This earmarks the fact that in a way we don't need 'cities' anymore, we can live pretty much anywhere now which is visible in the extensive global migration nowadays. These times also revealed **how poorly our indoors and neighborhoods** are prepared for a pandemic level threat.

Is this the end of the urban?



Img 2: A street view of 19th century public scape.

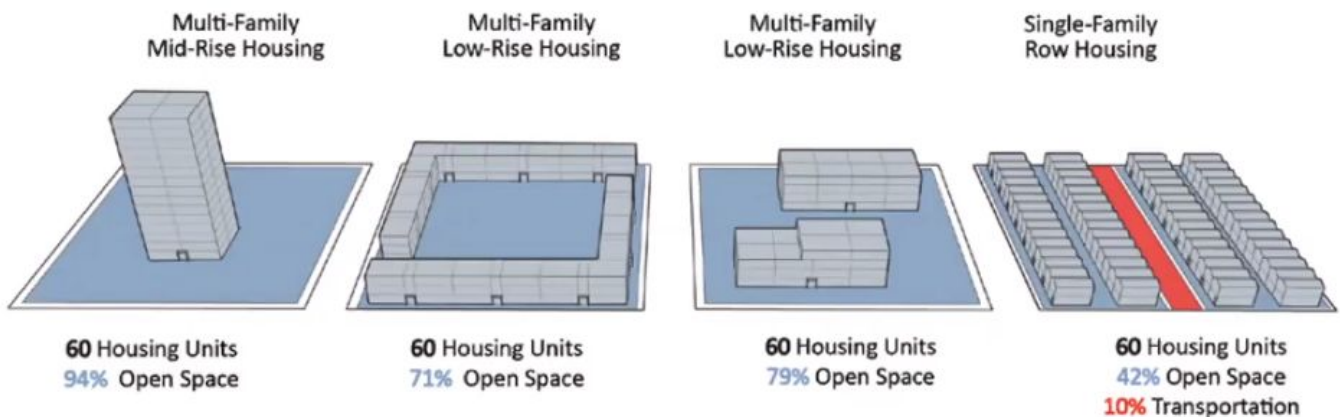
Urban Equation

Through decades cities have been **under constant question** for their **pros and cons**. This is not the first time where the **'ideology of urban'** has come into an existential question within the larger architectural discourse.

The 19th century saw epidemics like Cholera and Spanish flu, which had a very similar impact to our society. The **cities** were the **only way** possible to provide excellent **healthcare** services and access to fundamental necessities like **clean water** and **sanitation** at such a mass scale.

And even in today's context, **not all cities suffered**. This evolving pandemic is well handled by countries like South Korea, Taiwan and Singapore despite the density.

The evidences certainly doesn't add up 100% against urban, but **can our cities evolve by realigning against these potential threats** that impair the civilization?



Img_3: An image illustrating density and crowding as two different phenomenas - By Ann Forsyth

Density ≠ Crowding

Density is usually misinterpreted with crowding which can not be 100% accurate. Consider an example above. A small community hall can have a lot of crowding even though it has alot of land around it. An apartment can be half empty if its occupants are mostly using it as a second home. Hence it is inconclusive to state building density = crowding. Crowding is a much much local phenomena.

This establishes a city as a place, full of micro parcels which may be poorly or well planned even if we use density as a bench mark. Most of whiich, is based on classical planning theory and functional demands against costs.

If all it takes is one good model to make our cities functional again, what can we do to find a mid ground? A model that enable enough public life for the people inclusively, while maintaining a certain degree of distancing to ensure cities are not totally impaired?

Our cities need an overhaul especially with so much of pressure on environment and over burdening on planet resources.

If 2 out of 3 people globally will live in cities by 2050,

**What will be the best way to
get there sustainably?**



Img 4: An aerial view of an urban metropolis

Brief

How can we **rethink city fundamentally** not by a complete overhaul, but **smaller functional models**? How can we create a jigsaw of such functional architectural modules that make life go on despite of such threats around? How can **indoors be extended to a neighborhood** where isolation is not as bad because of a colony designed with strategic overlaps? How can **densities be reinterpreted** in cities where **healthy living** (physical, mental and social) becomes a top priority?

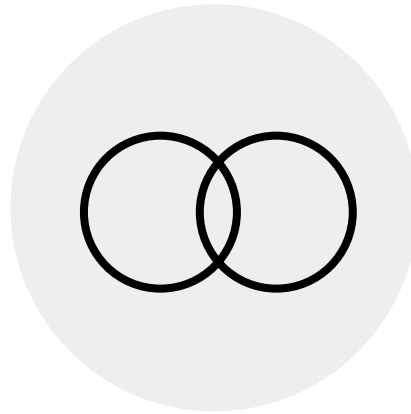
In a future where remote working/learning is an established as a reality, where commute itself is completely abolished from our daily lives, how will our neighborhoods be?

Design brief: Develop a zero commute, mixed use residential neighborhood massing concept that is resilient to pandemic impacts and is built for a population that lives, works and plays in the same place.



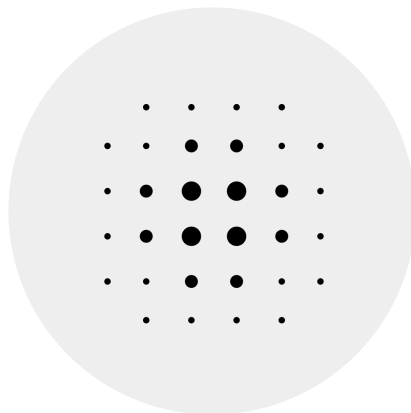
Living Quality

Finding better models of healthy indoor and outdoors



Overlaps

Physical/Non physical spatial intersections that combat isolation



Retractable

Ability of temporary isolation zones without disrupting the system



Inclusive

For vulnerable and sensitive age groups (Children and Elderly)

Objectives

The following objectives can be a point of beginning to conceive this design. Participants can assume their own contexts and users before initiating their design process.



Choose any 1 Site Location

Consider the site as empty before beginning the project. Also site boundaries are approximate for this exercise instead of absolute.

All three options feature developmental zones in some of the **densest cities in the world**. However, each city has a radically different history and timeline.

For **New York City**, even though it ranks youngest among the three, the vast majority of land has already been fully developed with reusing parcels and reimagining uses becoming the status quo.

With **Shenzhen**, China's rapid development has increased the need to finish developing districts and improve existing connections in the establishing megacity.

Cairo, as the oldest city, faces the greatest change in development as priorities have shifted to creating an entirely new system for its population in New Cairo by building from scratch.

All three cities have immense density but greatly different trajectories and goals. **How can we reimagine each site's relationship to density while balancing their cities trajectory and growth?**



20%

Office & Commercial

This will include co-working and leasing spaces for fulltime residents fragmented into tiny work areas across multiple levels.



50%

Housing

This will include Studio, Two and Three Bedroom flats - Schematic plans for these have to be furnished.



10%

Leisure

This can include dedicated facilities for leisure like cinemas, indoor sports areas, shopping areas, etc.



20%

Health/Education

^{Updated!}
This will include facilities like gyms, kindergartens, day care centers, parks, multi utility grounds or distanced fitness activities areas.

Program Distribution

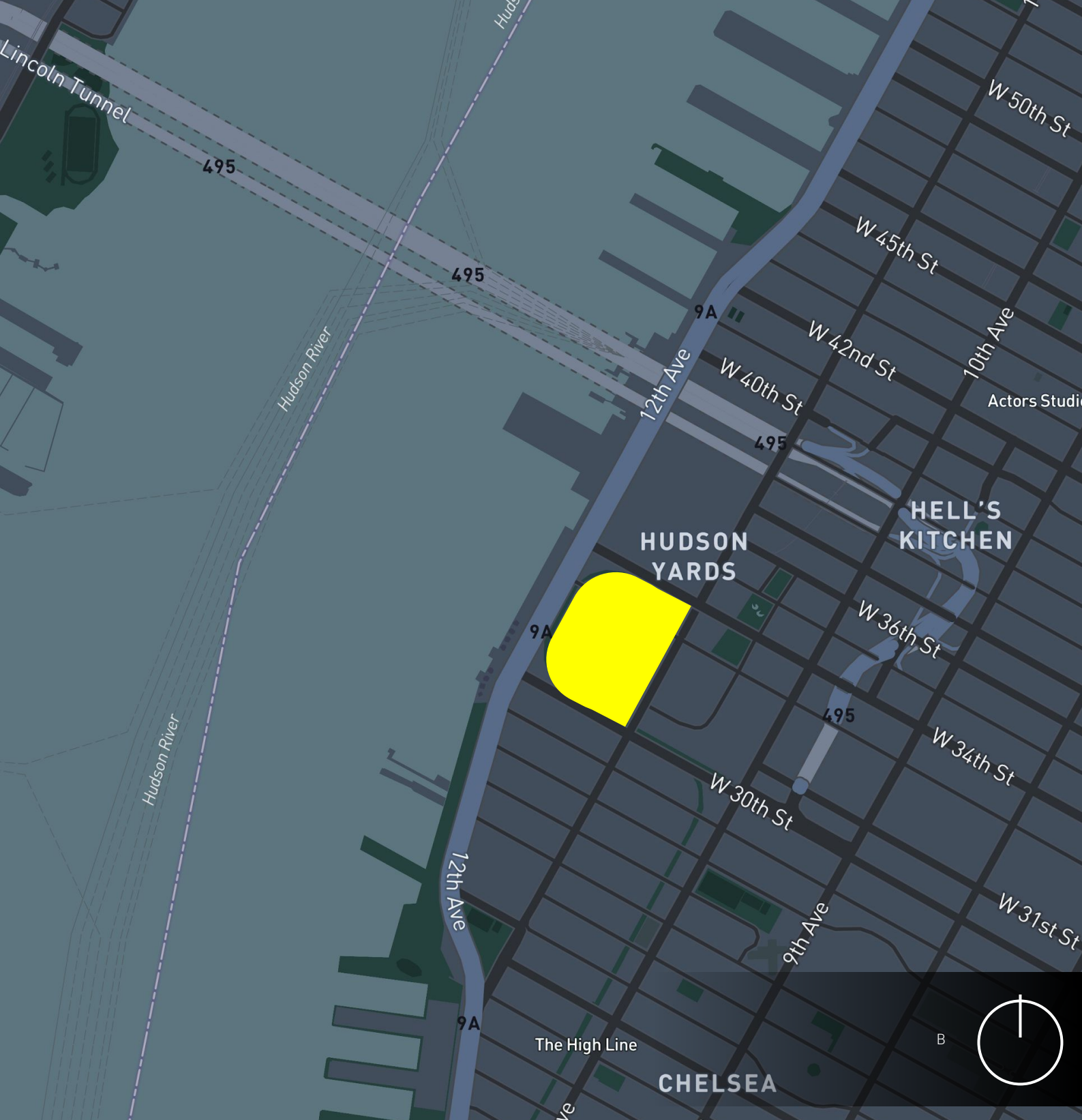
The following programmatic outline is the point to begin your design at. The programme can be adjusted in the digital blue foam tool (as shown below) to achieve a habitat model that is synchronous to the above distribution.





Context

The challenge focusses on a land parcel in an **urban metropolis** and looks at a site to emulate its test case on the next page. The site belongs to a developing urban neighborhood with a green/brownfield development for this mega project.

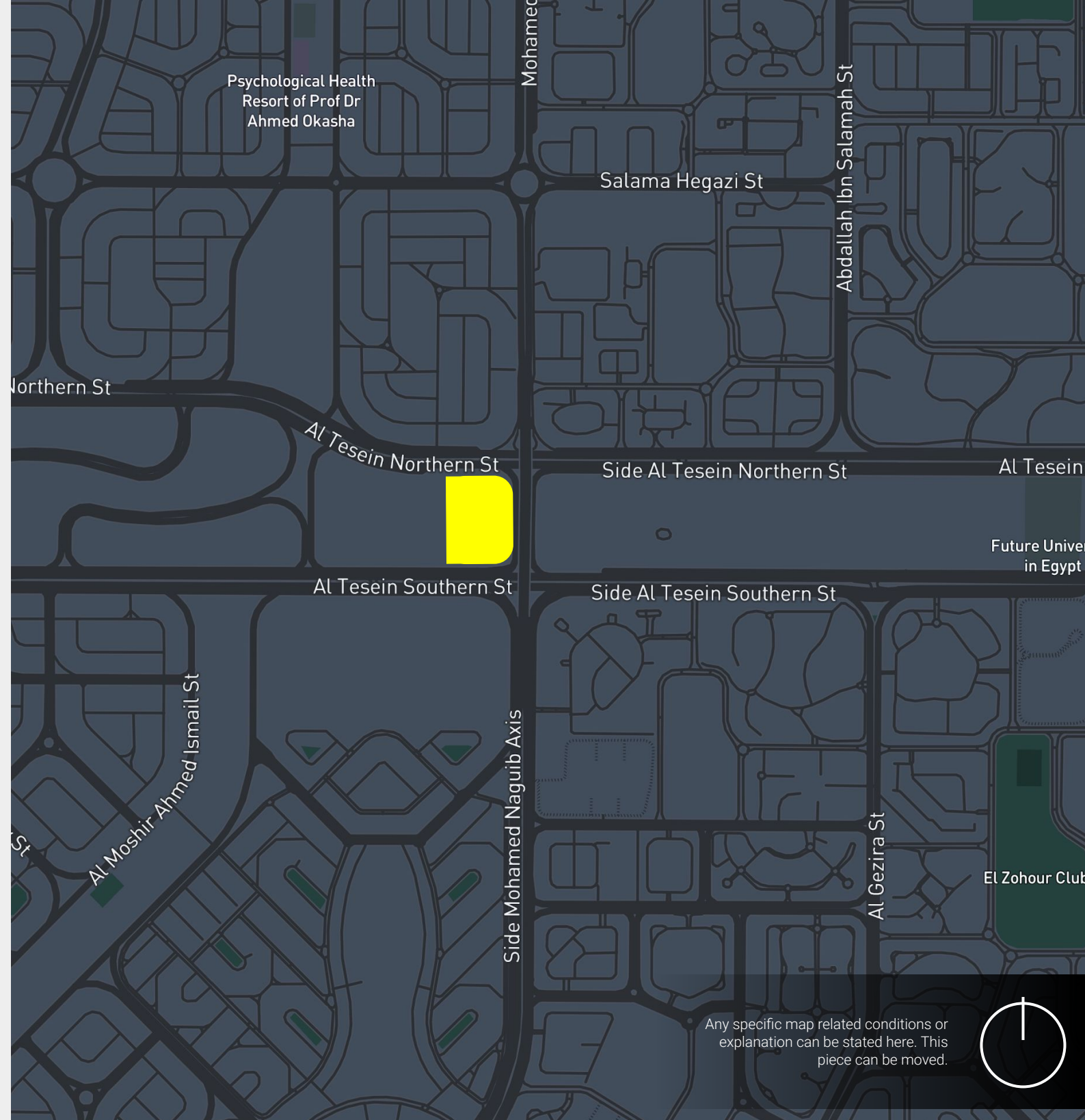


Option 01

Hudson Yards, New York City, USA

Site | 61,727sqm. | Subplots : 6 or more | FAR: 3

Hudson Yards, New York City, USA Located in Midtown Manhattan, Hudson Yards is a new development area that is built on an historic railyard. Connected to the newly constructed Highline, Hudson Yards is poised to become a new center of commercial and residential activity in the financial hub of the USA.



Option 02

First New Cairo, New Cairo, Egypt

[Site](#) | 64,628 sqm. | Subplots : 6 or more | FAR: 3

First New Cairo, New Cairo, Egypt On the outskirts of Cairo, New Cairo is an ambitious governmental project to develop an entirely new city to ease overcrowding in Egypt's capital. With residences and businesses just beginning to sprout, the city does not seek to merely connect to existing ecosystems but instead create its own.



Option 03

Qianhai, Shenzhen, China

[Site](#) | 62,691sqm | Subplots : 6 or more | FAR: 3

Qianhai, Shenzhen, China With Shenzhen being one of the newly established economic centers of China due to the explosion in electronics and tech, Qianhai development area seeks to create a new community on top of reclaimed land to help serve increased economic activity between mainland China and Hong Kong

Step 1: Open the **design site** on <https://beta.digitalbluefoam.com>

Step 2: Refer to [short tutorial](#) to familiarize with the tool.

Step 3: Input **axis** or **parks** based on your design demands.

Step 4: Hit **play** to **generate** design options automatically - **Pause** on an option **that fits**.

Step 5: **Export/Download** model and **import** into your design softwares (Rhino 3D, Sketchup, etc.)

Step 6: **Borrow parts of design / Develop** on the **concepts obtained** to make your project.

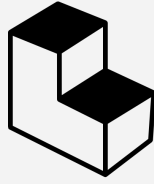
Recommended Workflow

You can borrow partial or complete designs from the obtained model and develop your design on it. Otherwise; you can choose to skip the use of this tool entirely for this competition.

OR

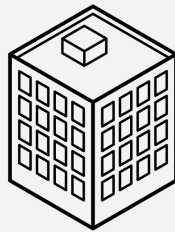
Step 1: Follow design methodology of your liking - the above steps are entirely optional.

Massing Concepts



Discover atleast 2 massing options from Digital Blue Foam - tool.

3D Views



Demonstrate your developed township in **3D** and **concept drawings**.

Details & Features



Illustrate its details and features through sketches, 3D views or blowups.

Deliverables

The design proposal looks at a concept level massing level planning of the township which includes - 1. Massing of towers, 2. Public Spaces, 3. Commercial/Residential/Wellness Zones - Reflecting how the objectives will be fulfilled in this new kind of design. The technical details of dwelling units / services / parking layouts are not expected in this exercise. You may assume data wherever necessary.

Guidelines

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

- Recommended number of images you can submit:

5 (Five) of size [**2800px x 3500px**] in portrait digital format (**JPEG only**).

Minimum 3 (Three) & No maximum image 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)
 - Key conceptual sections x 1 (Minimum)
 - 3 Auto generated Massing concepts from DBF
 - 3D views x 4
 - Cover image / Thumbnail of size 2000px x 1000px or larger in aspect ratio 2:1 (First image).
 - This is the link for new file sizes, [here](#).
-
- Write a article/story in the **Journal section**[#] of the project (of about 700-1000 words) answering the questions given in the Additional Resources.

#Journal Section appears midway in the project submission portal. More instructions in the additional resources.

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, Tutorials for DBF Workflows, Journal Section guide, High Res maps.

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**.
- + 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

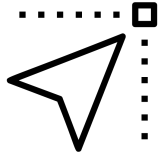
- + Use exploded views to discuss multi levelled conceptual models better.
- + Mention sheet number on corner of every sheet.
- + Plagiarism of any idea / form / design / image will be disqualified with a notice.
- + All the sheets or images will be viewed on a digital device. **e.g.** Laptop screen 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)



Awards

Grants of up to a total of **24,000\$** can be won on this challenge. Learn more about the full conditions on the competition page [here](https://uni.xyz/competitions).

The entries will be judged by a panel formulated by DBF team on following criterions:



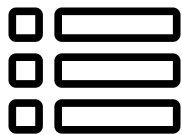
Presentation

The fundamental to a good entry is a good presentation.



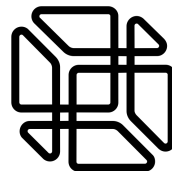
Concept/Idea

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 our partner:

DBF

Digital Blue Foam (DBF) is a company that has created an eponymous software that hunts, gathers and computes contextual data such as climate, program and urban networks to determine the right building configuration using advances in artificial intelligence, generative design, and web-based 3D visualization.

It's vision is to accelerate the world's transition to better, greener cities.

DBF uses artificial intelligence to process project data to generate hundreds of high-quality massing options in seconds. Presented in a visual matrix for easy comparison and selection.

Website: <https://www.digitalbluefoam.com/>

About



Hybrid Futures is a unit block for UNI in the field of Architecture that covers the field of near future architectural thought. It intends to break the barriers of design ideologies that are short sighted and aligns itself to futuristic thought. This arm of Uni banks on growing technological advancements to frame architecture in the megacities of tomorrow. It is a research initiative dedicated to providing opportunities for designers from all domains to explore ideas that go beyond the boundaries of architectural discipline and enrich our built environment; thereby opening up possibilities for promotion of design thought process at a global level.

Queries: support@uni.xyz

Discover other competitions: <https://competitions.uni.xyz>

Facebook: <https://www.facebook.com/unidesigntogether/>

Instagram: <https://www.instagram.com/uni.xyz/>

Discover FAQ's about this competition on our help forum here: <https://help.uni.xyz/>

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Renabling
Spaces through
technology

Available on:
Institutional  AccessTM

<https://uni.xyz>