

X-PLOR
ARCHITECTURE
of **X** the
APOCALYPSE



Using Space Technology to colonize earth again after Apocalypse

<https://competitions.uni.xyz>



Img_1: Caption of the image here.

Premise

EARTH is a doomed planet and if humans do not act fast, humanity faces going down with the ship, Professor Stephen Hawking warned in his last book.

Hawking predicted that the earth would turn into a giant ball of fire by 2600 and humans would need to colonize another planet or face extinction. However, many possible scenarios of anthropogenic extinction have been proposed; such as human global nuclear annihilation, biological warfare or the release of a pandemic-causing agent, overpopulation, ecological collapse, and climate change.

Hawking's thoughts were similar to SpaceX and Tesla CEO Elon Musk. He said that there will be an "extinction event" if humans stay on Earth, according to an article in the journal New Space.

Whilst there is a notorious race that burst to colonize space and the celestial bodies in it. It is almost the same technology developed for that purpose that could save us here on earth after the apocalyptic event to survive through any dystopian future.



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Question?

Life exists on Earth only because it balances unsteadily in a delicate and fragile way but precise. Our atmosphere, proximity to the sun, and countless other proper conditions not only permit living things to survive and evolve but also thrive.

But what if one day we woke up and found that Earth is inhospitable to anything resembling life anymore as we know it.

The life on this planet likely won't cease until billions of years from now. But, depending on the scientists and astrophysics, it could also happen tomorrow or anytime in between.

At that time could space technology we develop to colonize other planets be useful to re-colonize earth again? It is dystopian but realistic that someday we will have to deal with our mother Earth as an extra-terrestrial planet



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Issue

Extreme Conditions Scenario

An extreme environment is a habitat that is considered very hard to survive in for life forms due to its considerably extreme conditions such as:

- Scarcity of Oxygen in the atmosphere with high levels of toxicity in the air
- High levels of radiations (Alpha, Beta & Gamma rays) due to possible nuclear catastrophic event.
- Lack of Flora and Fauna.
- Extreme temperature fluctuations between day and night
- The rise of Sea levels due to melting of ice on both North and south poles.
- Contamination of Earth water bodies with continuous acidic rain showers
- Lack of sunlight due to heavy cloud cover



[Img_1](#): Caption of the image here.

Brief

It is your mission if you choose to accept it, **to design a self-sufficient, closed loop life support system that can support regenerative life for the minimum viable population (MVP)**. The MVP for this competition is **160 human beings** on any location on earth after the extinction level event where any location on earth will be as extremely harsh environment as any extraterrestrial planet.

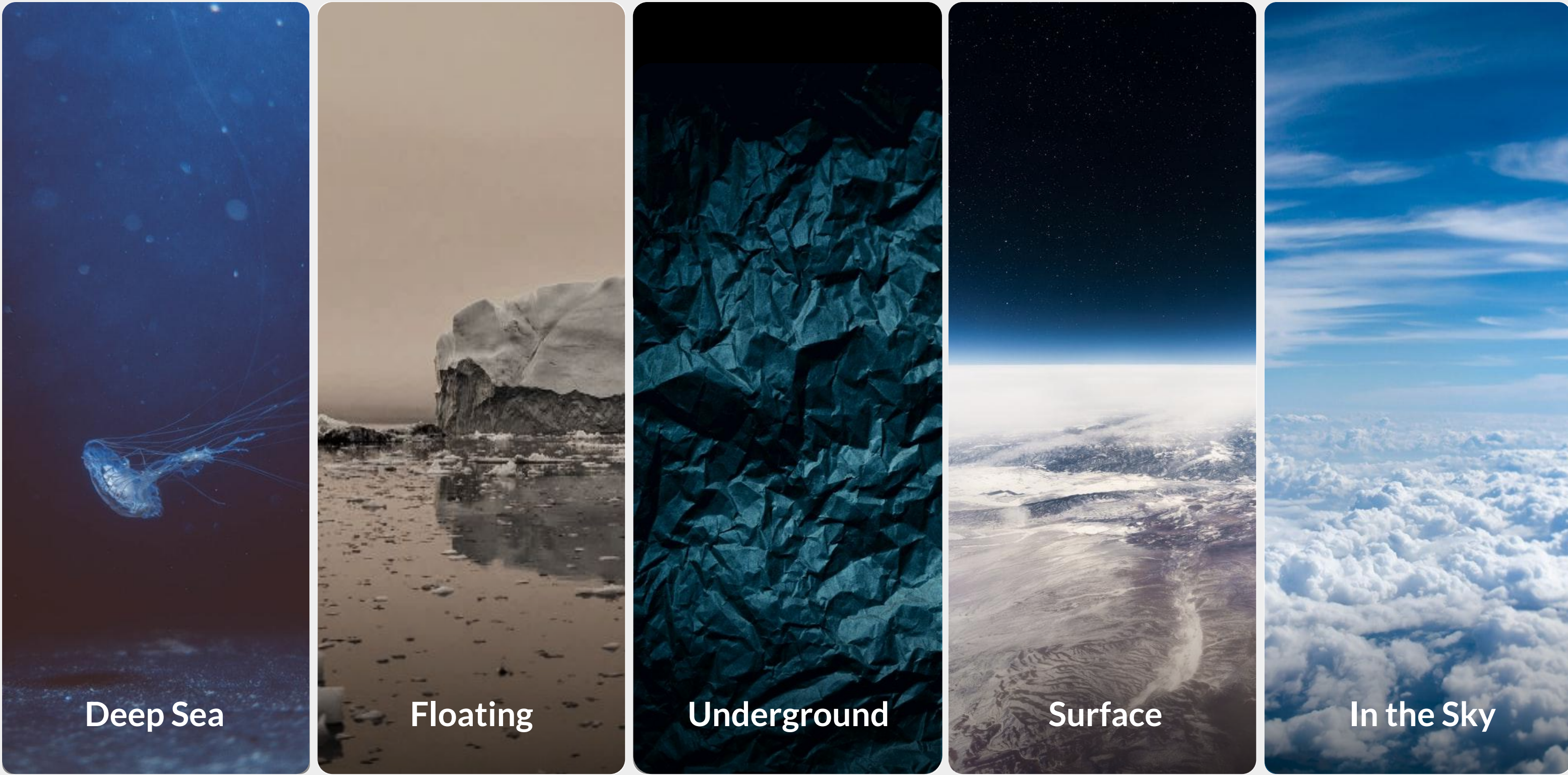
Using the space technology but this time on earth. Dealing with earth as an extraterrestrial environment after apocalyptic event. If we have the technology to colonize Mars, That will be the same technology that will save us when the extinction level event (either it is manmade or natural) will happen.

It might be an underwater life boat, a sea level ark maybe, a cocoon shelter dug deep on a subterranean level or even an airborne airtight balloon. Your design today maybe some day's human race ticket to survival to re-terraform earth again.



Earth (Doomed)

Mankind had already developed huge advancements in space colonization. Fortunately we can use same technology and concept in restoring earth again. Study Space colonization strategies and plans to provide you with insights.



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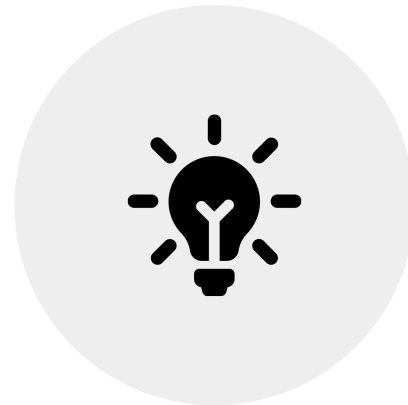
Location

Choose any spot in context of doomed earth based on your research that can be safe and mitigate the extinction conditions on what was known previously Earth.

A few examples can be: **Volcanic tubes** (A form of tunnel caves formed by a volcanic activity, where they are naturally shielded from radiations and acidic rains), OR **Underwater city** that was once a shore city but drowned due to ice melting of North and south Poles (Availability of the infrastructures even if flooded by water) OR **Extremely high altitudes** above cloud cover (Like Mountain Everest)

Note: The above are just suggestions of sites which can withstand extreme conditions, however you can choose any other possible site based on your research.

Objectives



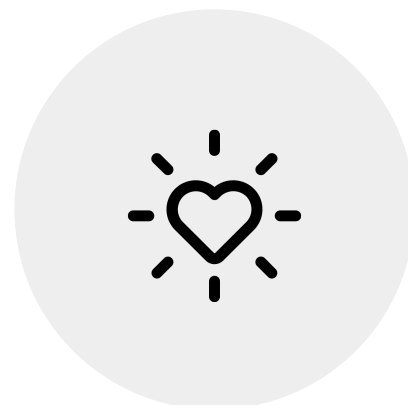
Idea

Underlying thought behind your doomsday habitat



Site

The choice of place and scenario you build in.



Life

How human life is orchestrated inside the habitat.



Working

How the conceptual habitat would function.

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.

Suggested Program

Keep note:

“Optimum systems are not necessarily composed of optimum components”

To create a balanced ecosystem to support mankind life you are free to edit and add to remove some of the program elements according to your research and vision.

- Planting farms (Aeroponics and/or Aquaponics) for 4 types of plants,(Vegetables and fruits for nutrition, Medical plants, Wood plants for construction, Oxygen bomb plants)
- Life supporting system including but not limited to Air recycling station containing (MOXIS) and/or water recycling (WAVAR)
- Sleeping areas (Pods and/or Capsules)
- Research Labs
- Living and exercising areas
- Powering station (Nuclear Batteries, Fusion reactor, piezoelectric, or any other suggested technology)
- Communication center to establish a network with other surviving communities
- Airlocks attached to the entrances with purification and sanitizing area.

The above design programme is open to modifications by the participants.



Submission

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

- A maximum of 4 boards / sheets. – [**2362px x 3544px**] or [**400mm x 600mm in 150 dpi**] in portrait digital format (JPEG).
- Each image should be less than **15MB**
- You can find the preset PSD, AI and INDD template files in the 'additional resources folder' and [here](#).

This additional resources folder contains: FAQ Questions

Minimum requisites in the sheets are 3 sheets/boards + Cover image containing:

- A slogan describing your project. This slogan will be associated with your project in order to represent it. (100 characters in English).
- Site plan (Compulsory)
- Key conceptual sections x 1 (Minimum)
- 3D views x 4
 - Procedural, Observational and/or analytical diagrams
- Cover image/Thumbnail of size 2000 x 1000 px or larger in aspect ratio 2:1.
- Floor plans, images, sketches (if any) can be added to support the entry in the form of additional images.
- Answer 6 FAQ questions in the discussion section as given on the 'additional resources folder'.

-
- + The team limit for this competition is 4 members maximum.
 - + Use exploded views to discuss multi levelled conceptual models better.
 - + Ensure that the final sheets which are submitted do not include your name or any other mark of identification.
 - + Mention sheet number on corner of every sheet.
 - + This is a design ideas challenge only. There is no built commission/realization is associated with the problem
 - + Plagiarism of any idea/form/design/image will be disqualified with a notice.

Registration page here: <https://competitions.uni.xyz/architecture-of-the-apocalypse/info/about>

Discover the competition schedule and deadlines here: [Schedule](#)

Rewards



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](#).

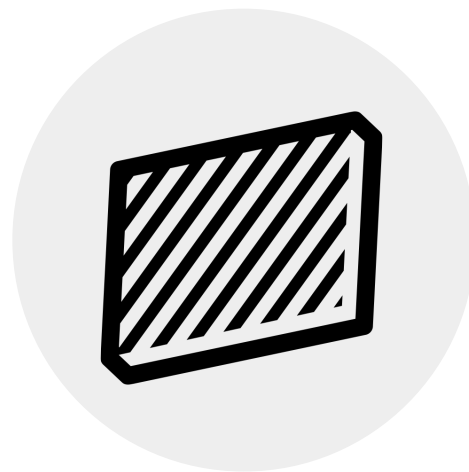
Judging Criteria

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



40 points
Concept Design

What innovations will be used?
The development of the design
structure and How will the
concept work?



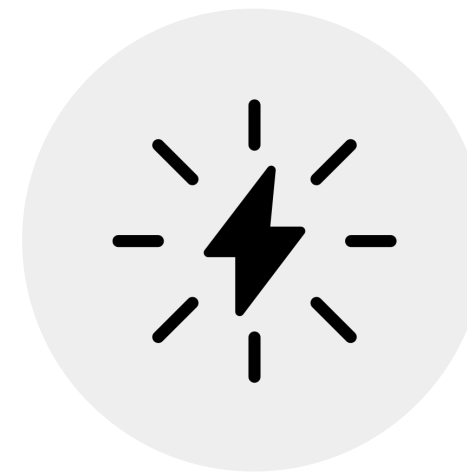
30 points
Site + Material + Systems

What innovations will be used?
What are the quality of site
selected and analyzed in
future?



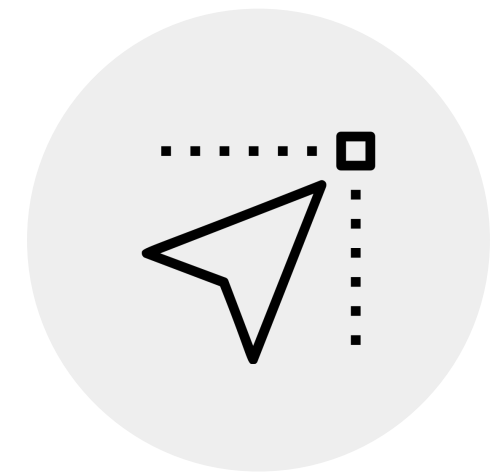
10 points
Human Wellbeing

How can you maintain both
the physiological and
psychological wellbeing like
circadian rhythm, etc?



10 points
Energy

How should the shelter should power
itself in an environment that resembles
extraterrestrial planets after doom of
earth itself?



10 points
Design Presentation

Clarity in design communication,
presentation of ideas and quality
of visualization in the sheets or
presentation boards.

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Curator




Samer El Sayary

Architect, PhD. Mars City Design Ambassador
Samer El Sayary Architects
Lebanon

Samer El Sayary (1978) is an assistant professor of Architecture, researcher and award-winning architect. Over 30 award and prize till the year 2019 from prestigious institutes like Mars City foundation (Los Angeles, 2017), Jacques Rougerie Foundation (Paris, 2018), Kuala Lumpur Architectural Festival (Kuala Lumpur, 2019) to name few, His work has been featured in Discovery channel UK, Dutch TV, California Dreamers, Wired magazine 2017 and L'arca magazine, to name few. He is experimental architect who participated in numerous workshops in 13 different country. He continuously explores the relationship between the past and future trying to redefine it using modern technology. The main outlines of his architectural school could be summarized in three main principles; 1. Digging deep in the knowledge and science accumulated through thousands of years to capture hidden values and intangible strengths of legacy. 2. Rethinking those values using cutting edge technologies to create a state or art architecture that carries the spirit of the past, not in its shape or form, but in its experience. 3. Teaching future generations how to use technology to develop their Heritage.

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What you do today will **save Earth** later.

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