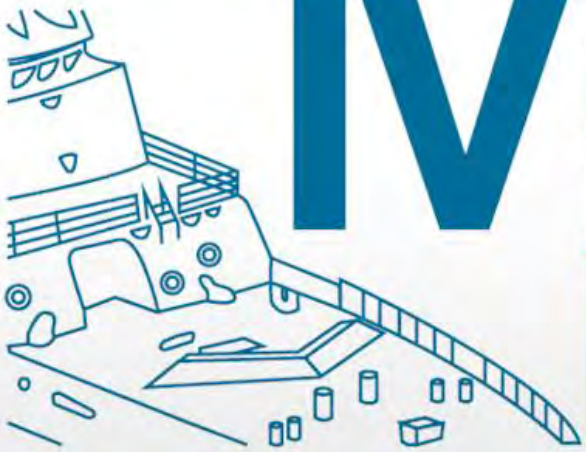


IV CONGRESO INTERNACIONAL DE DISEÑO E INGENIERÍA NAVAL

11 - 13 DE MARZO DE 2015

Seastead floating city. Innovative development of a new model of offshore city.

1. Introduction
2. Memories
3. Development
4. Results
5. Conclusions

Introduction

MEMORIES

- Floating habitat investigation
  History (lake cities, big cities built on water, futur projects, utopic cities,
- Conclusion
- Entrepreneur (Seasteading) Ecomonic model

DEVELOPMENT

- Methodology
- Requirements identification
- Study design restriction
- Definition of typological volumes
- Internal functional analysis

RESULTS

- Re Settings
- Desing of housing typologies

CONCLUSIONS

Memories

Middle Age Bridges

- Hotel Dieu Bridge, Paris 1499
- Pont Vecchio, Florence 1345
- Rialto , Venise 1588

Inle lake, Birmanie

Since 1359 by Intha (Tibero Burman)
Surface area:44,9 ft2 / 116 km2
Average depth: 4 to 12 ft/ 1,5 m to 3,7m

- Self-sufficient farmers
- Lot of small village arround

Village Kompong Phluk, Tonle Sap. Cambodia

Surface Area: 1000 ft2 / 2700 km2
Ecological hot spot 1997 by Unesco

- 1,5 million resident aprox
- Large Fresh water
- Fishing industry

Ganvie, Benin

Established XVI y XVII

20000 people, the largest lake villa in Africa
- Fish farming
- UNESCO world heritage, 1996.

Titicaca lake, Peru

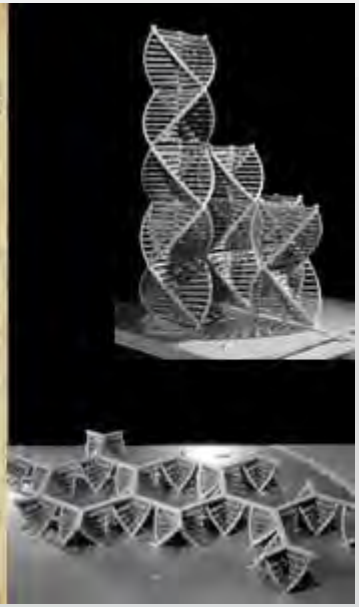
Created begin of XXI

Uros community, lives in Puno Bay

- Floating island created by Typha
- Open kitchen
- Bird and guinea pig breeding center

Sea city 1971 by
Hal Moggridge for
Pilkington Glass Company

Helix city 1961 by
Kisho Kurokawa. Japan



Palm Jumeirah, United Arab Emirates

Created in 2005

The greenstart by Waterstudio

LilyPad by Vincent Callebaut

Galethee by Jacques Rougerie

1977, underwater house

Turbine city, Norway by On Office

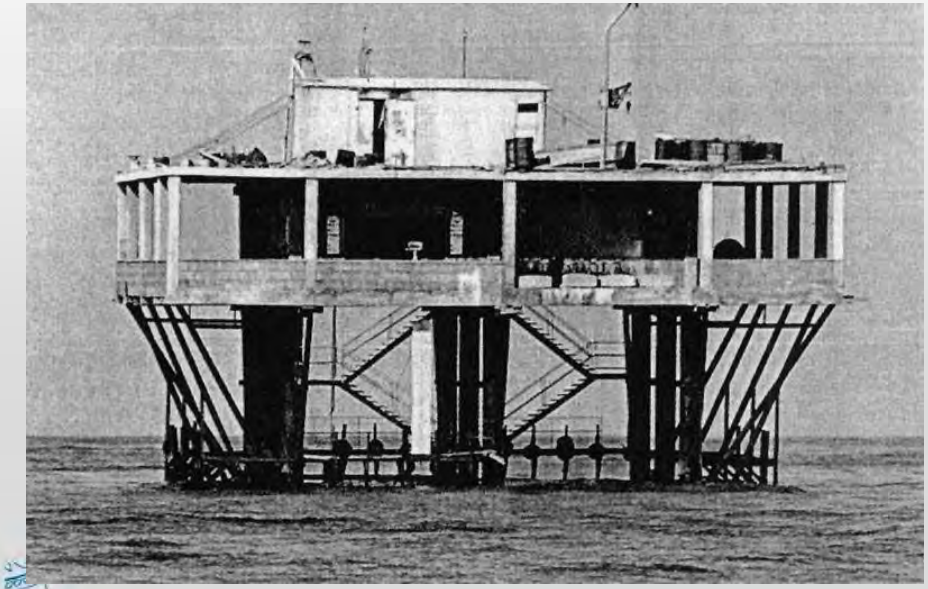
Area: 31500 m2/ 339000 ft2

49 Turbines, each rated at 8 MW

Sustainable energy

Republic of Rose Island " l´Isola delle Rose" or " Insulo de la Rozoj"

- Built by Giorgio Rosa and declared 24 June 1968
- Micronation, placed in the Adriatic Sea
- 6,8 MN / 11 Km from coast of Rimini
- 400 m27 4300 ft2
- 13 February 1969 the italian navy destroy the platform with explosive.



REM Island (Reclame Exploitatie Maatschappij / Advertisinf exploitation company)

- Built in the republic of Ireland in 1964
- Pirate broadcasting star on August 1964
- On 12 december 1964 they ended broadcasting
- One year later they became TROS to 8 june 2006.
- (Televisie Radio Omroep Stichting)

Fort roughs SEALAND

- Dimension: 51 x 27 m / 168 x 88 ft
- 2 columns : 18 m /60 ft tall, 7,3 m / 24 ft diameter, 9 cm / 3,5 inches thick, 4500 Ton
- One of the naval fort to the World War II
- Located 11 km from Suffolk
- Built in 1942 and occuped since 1967

DEVELOPMENT

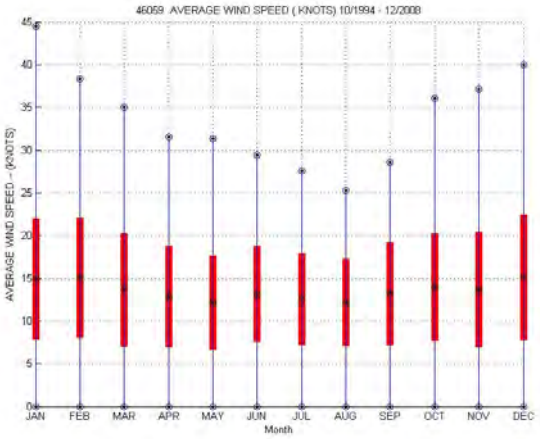
Functional requirements	
Accommodation	400 people in about300 ft²
	75% people in about 600 ft² to 2 person.
	25% people in about 900 to 1200 ft² to 3 or 4 person.
	40 guest in spaces 120 to 180 ft² per person.
	10 crew people in simple private spaces
Public Areas	2 levels combining interior area of less than 100000 ft²
Service spaces	Reception
Commercial spaces	Stores
	Supermarket
	Coffee shop and restaurant
Structural requirement	
Static load	> 94 pounds ft² internal spaces
	Considering accumulation of ice snow or warer covers
Equipment and safety requirements	
	Accommodation Sikorsky-61helicopter
	Compliance with fire codes, alarms
	Bridge command and control
	Spring for receipt of vessels and recreational space

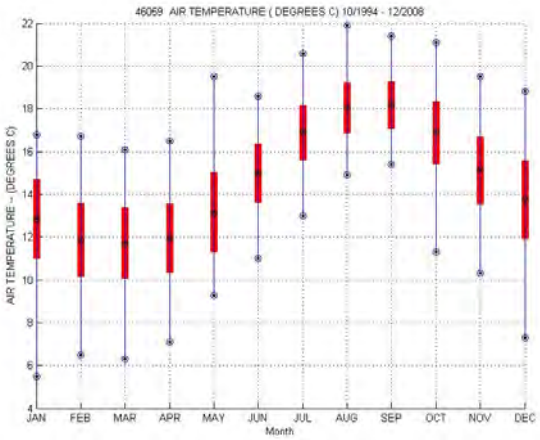
Study design restrictions
Location

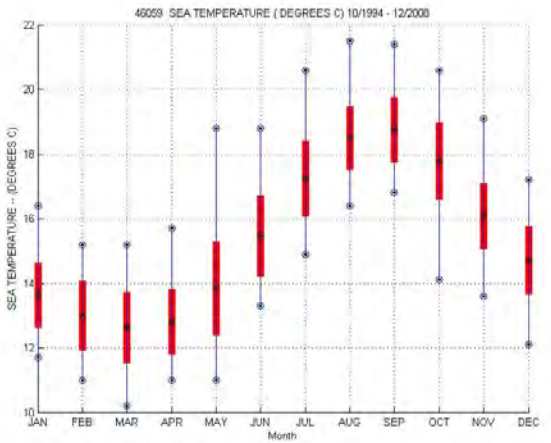
Far than 200 MN from the coast

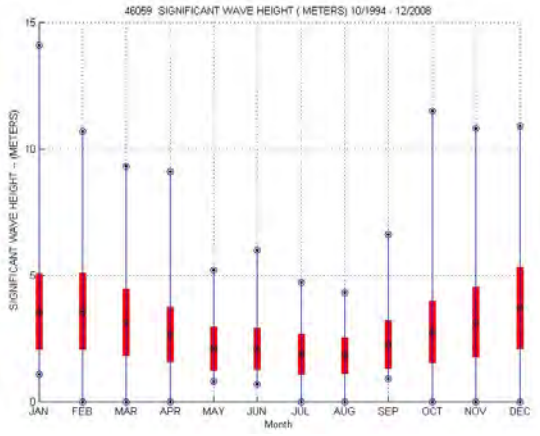
Conditions

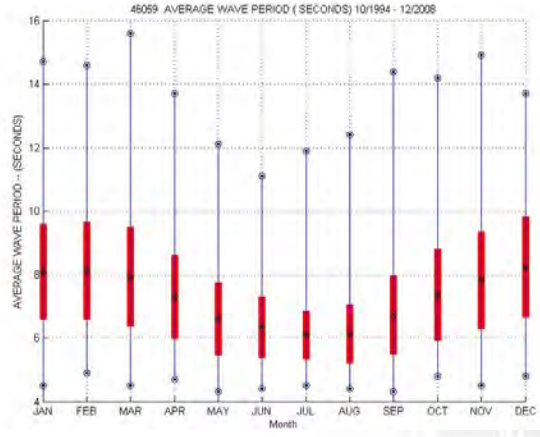
Station 46059 by NOOA (National Oceanic and Atmospheric Administration)

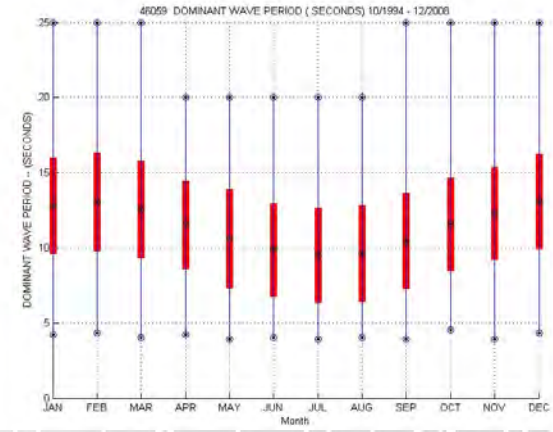




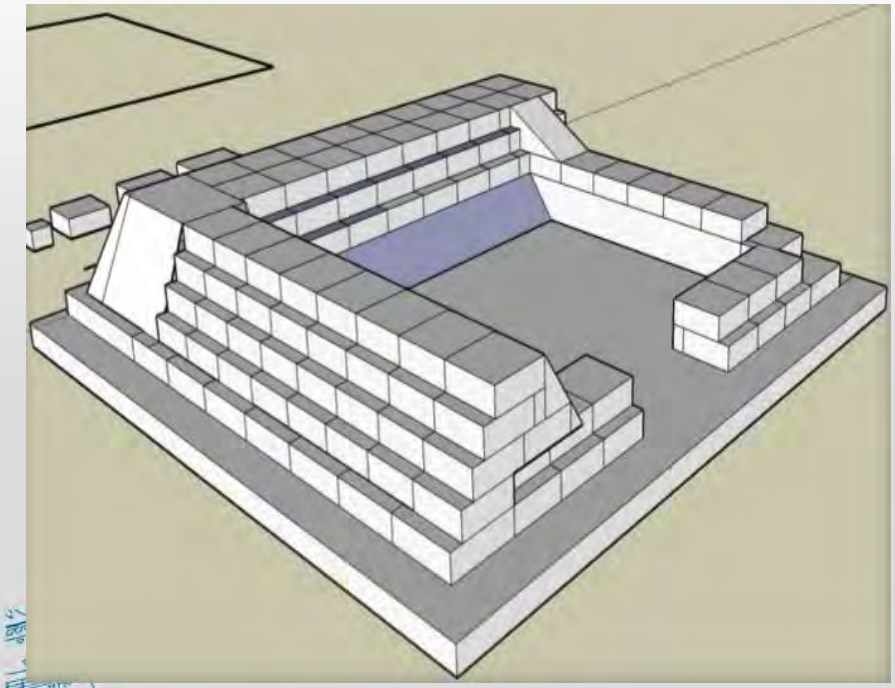


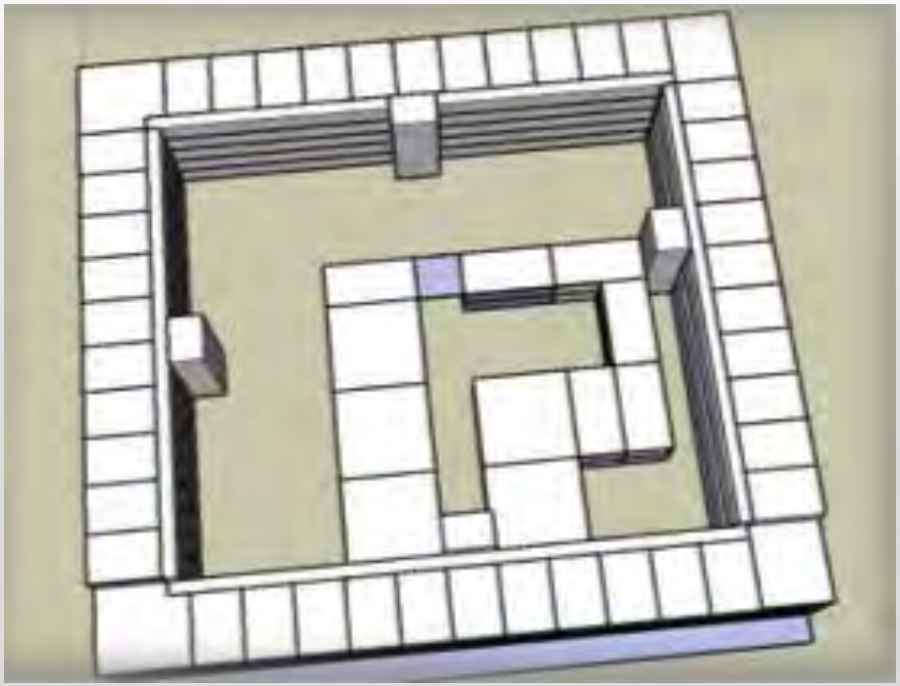




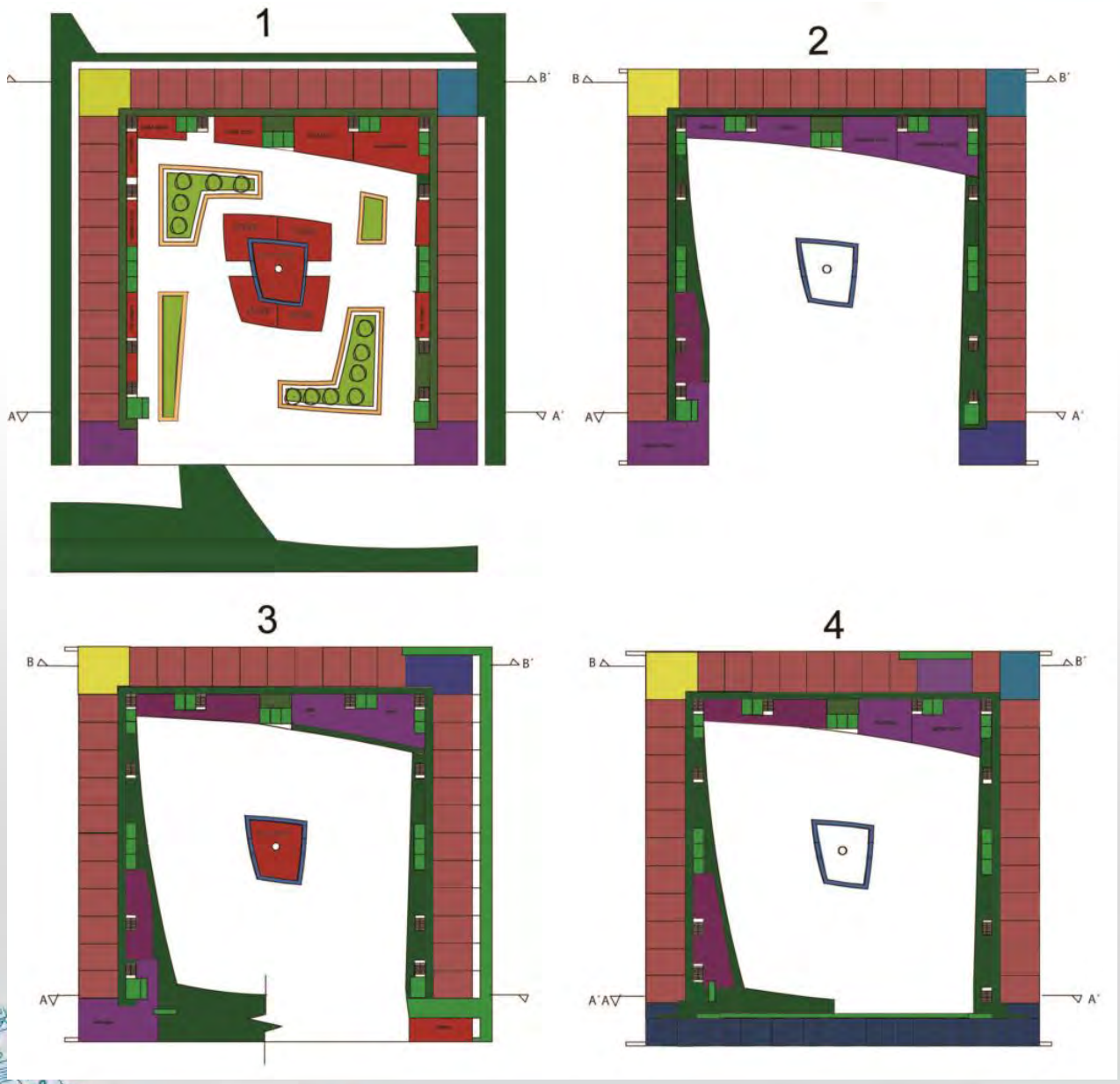


Typological Volumes

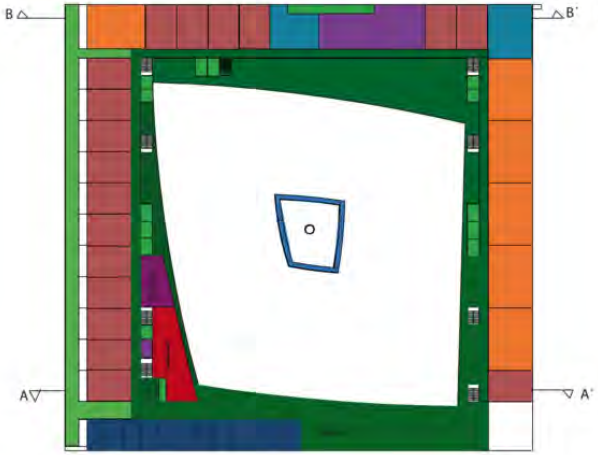




Rezone


1
2
3
4
A
A'
B
B'
A'A
Housing module type 1
Housing module type 2
Housinf module type 3
Housing module type 4
Trade
Equipments
Circulation
Permanence

5



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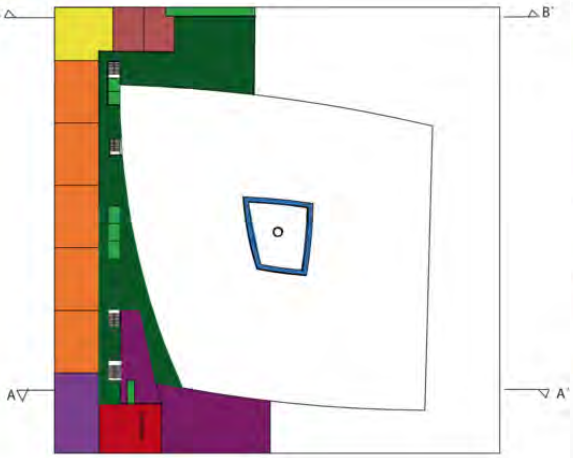
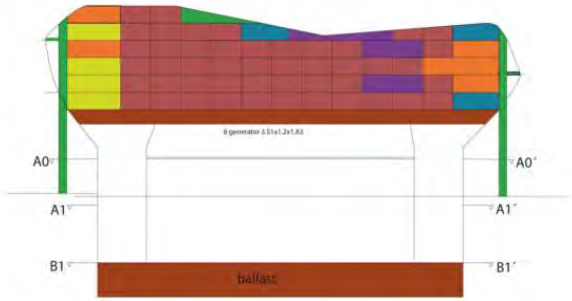
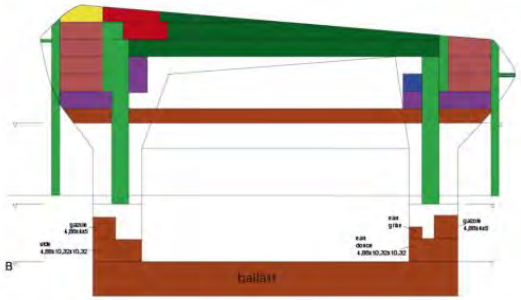
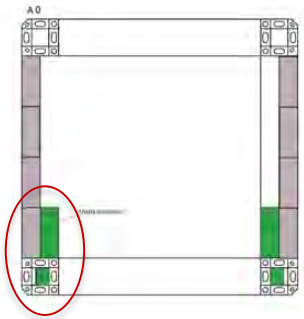


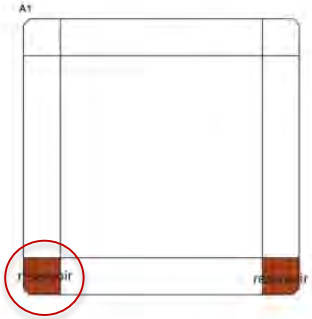
- Housing module type 1
- Housing module type 2
- Housing module type 3
- Housing module type 4
- Trade
- Equipments
- Circulation
- Permanence
- Hotel

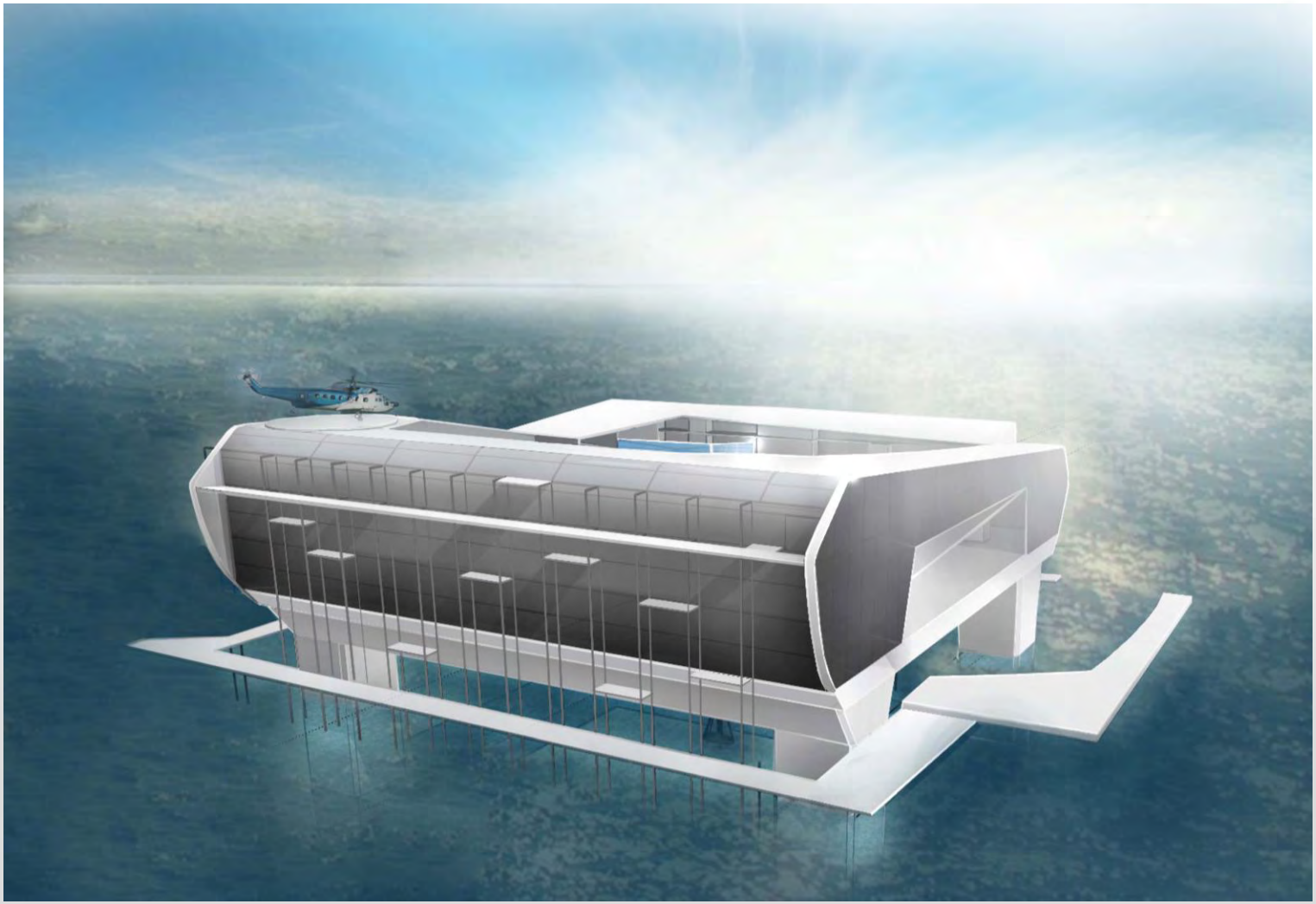


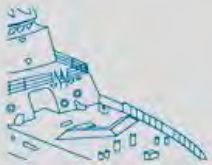


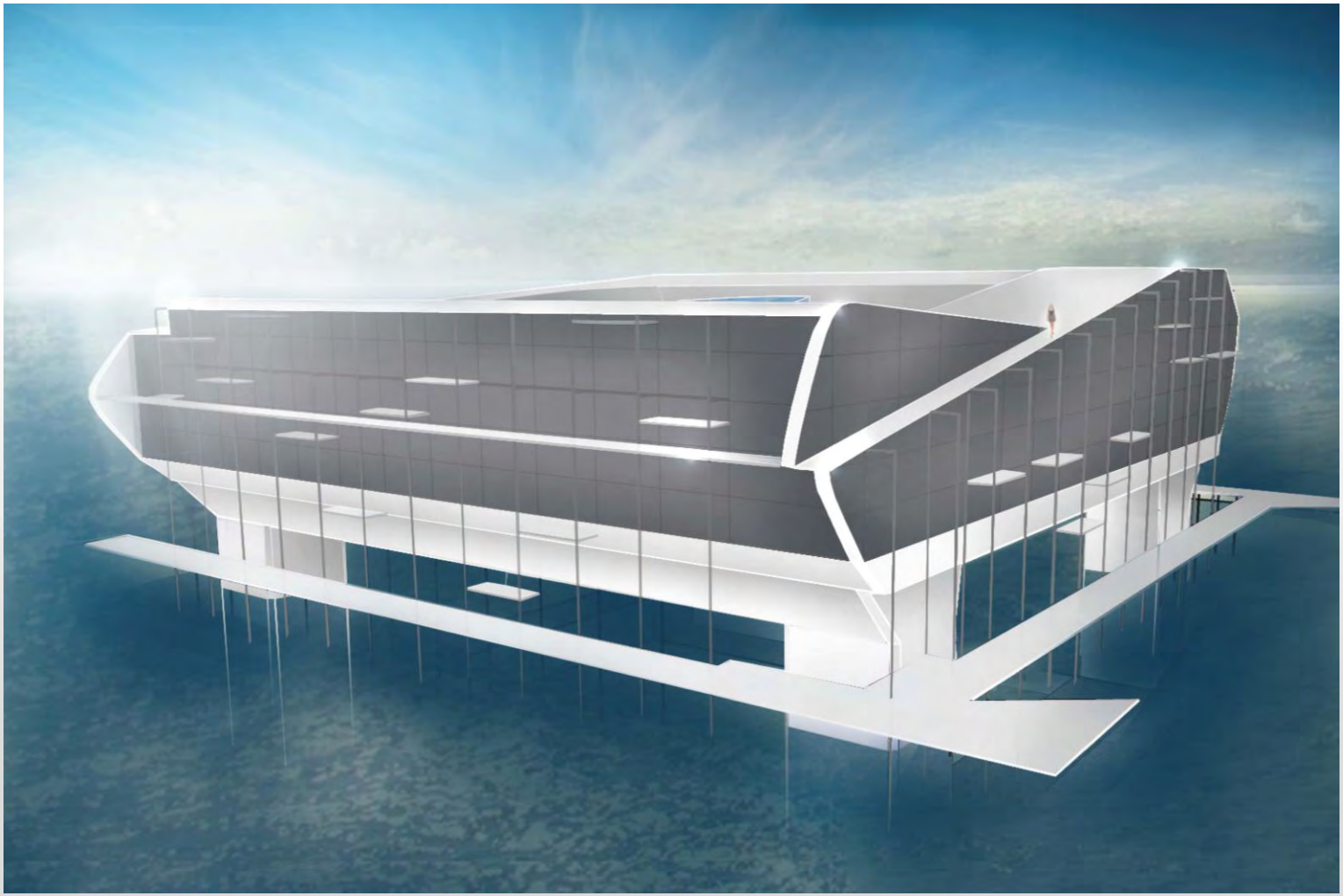
- Housing module type 1
- Housing module type 3
- Housing module type 5
- Housing module type 2
- Trade
- Equipments
- Circulation
- Permanence
- Hotel
- Techique space
- Ships parking

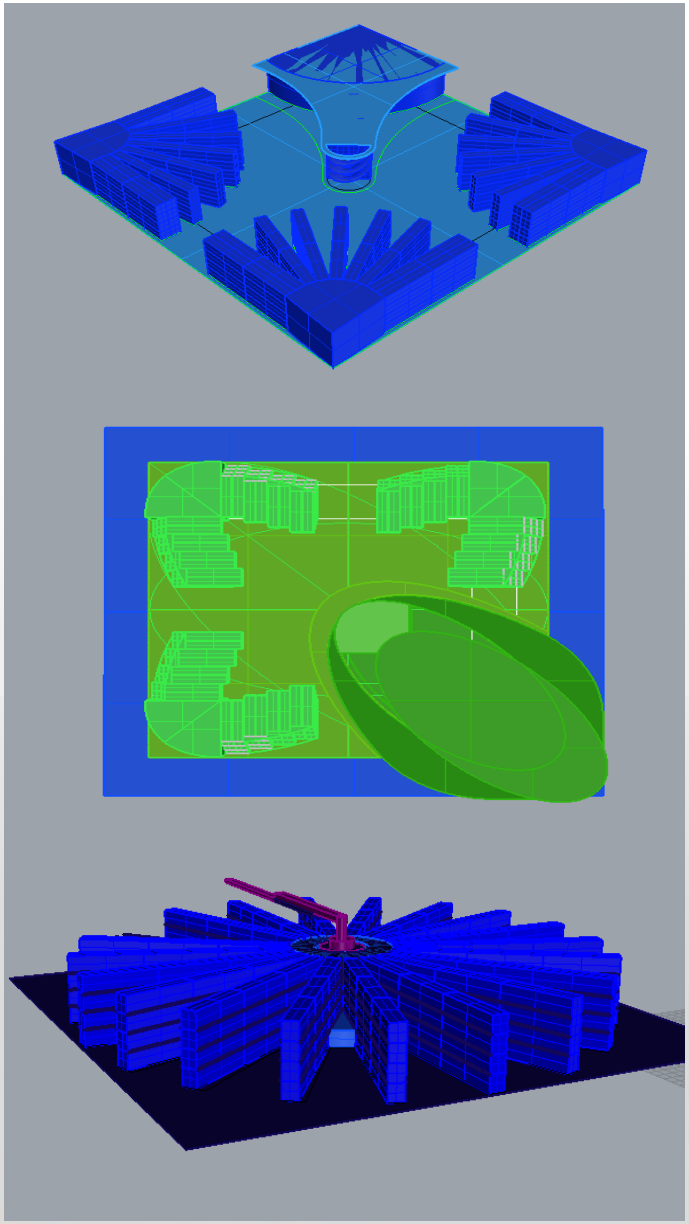












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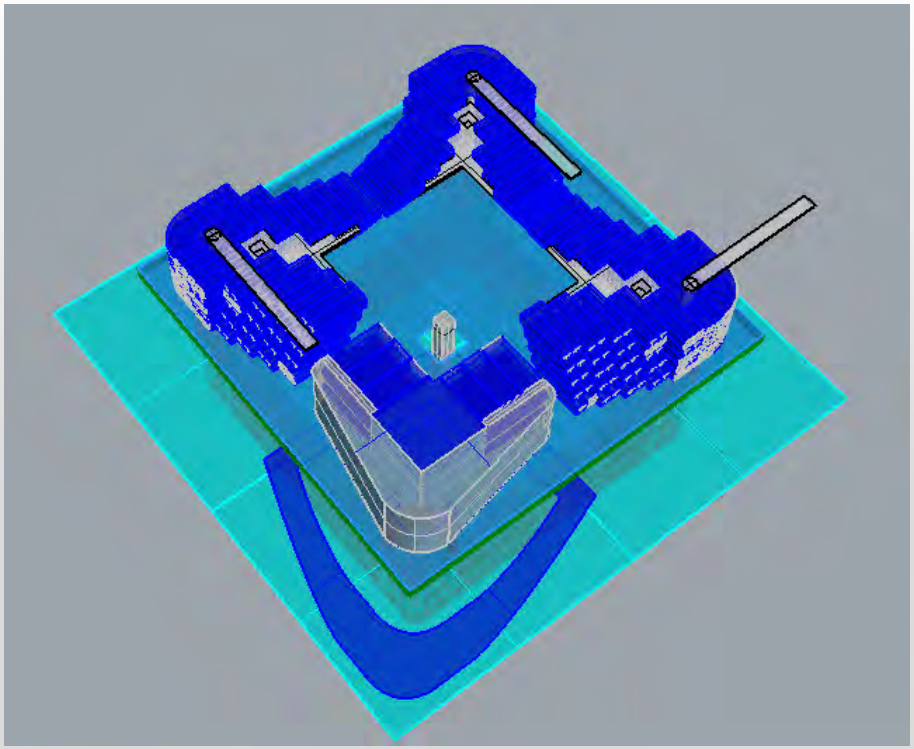
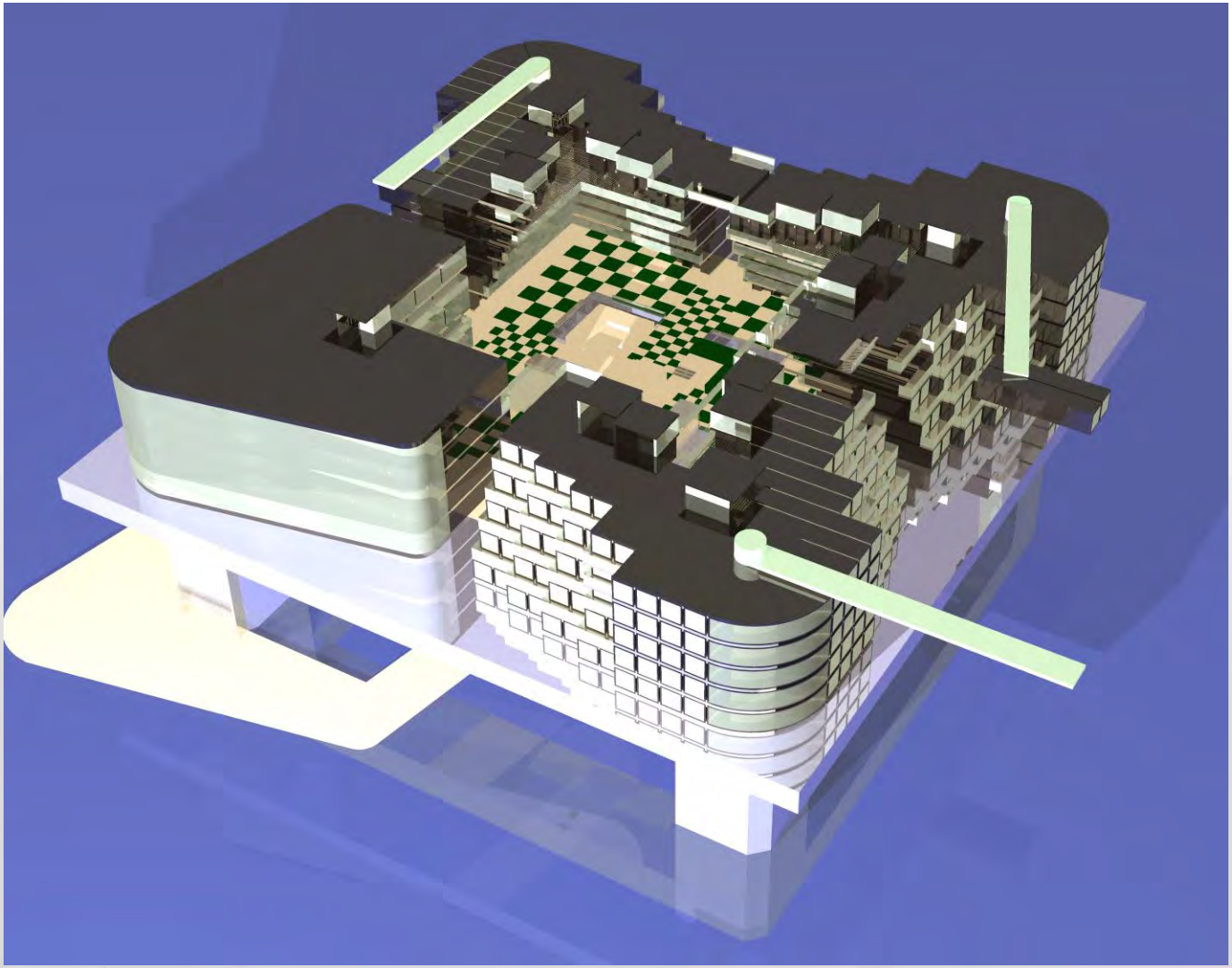


SEASTEAD

7500 square feet of harbor space, are avalaible for water activities, sport, shipping, and passenger unloading.

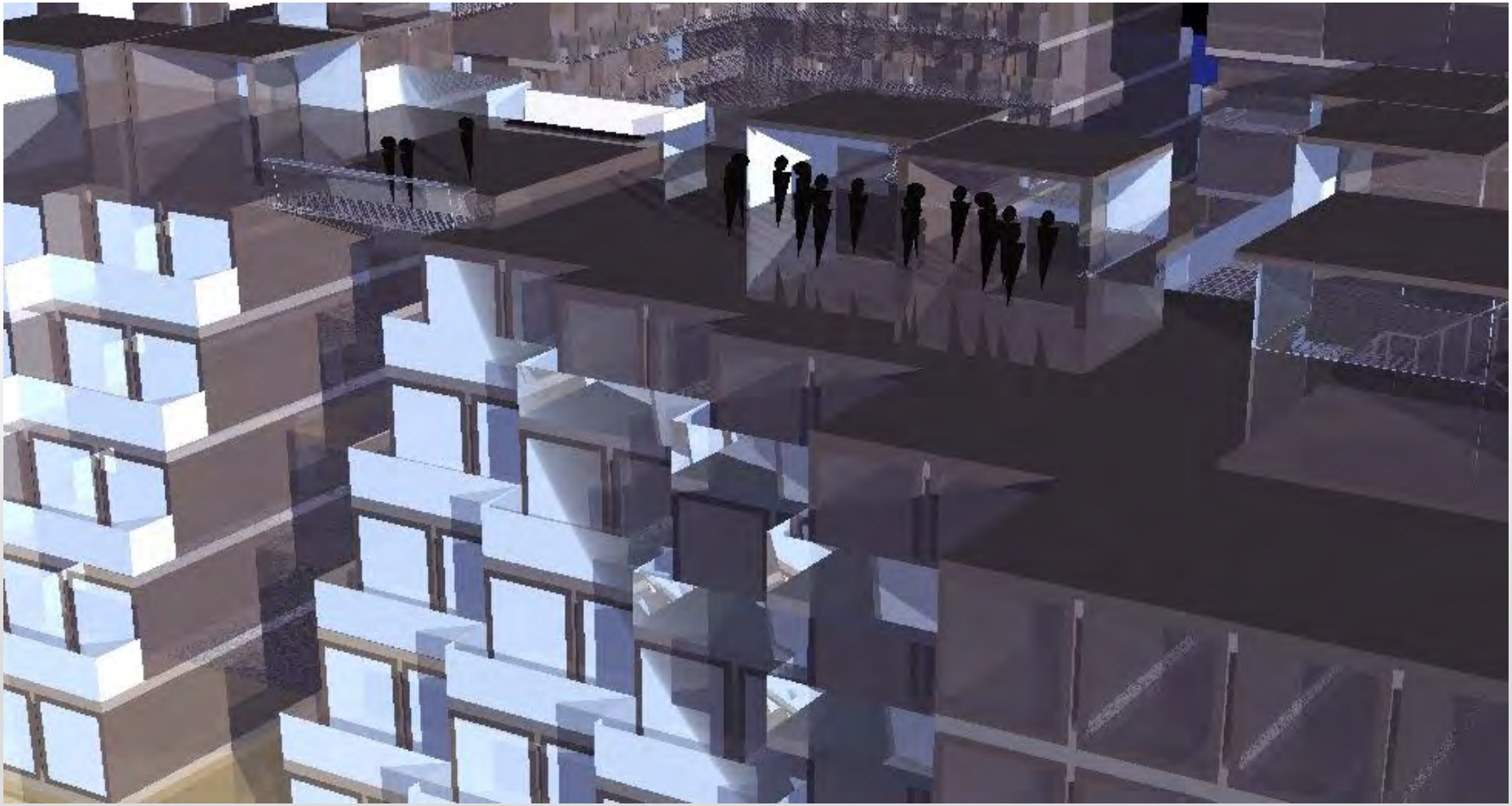


COMMERCIAL SPACE

Each corner of platform, adjoining the residential areas, is designated for shopping, a medical center, library, grocery store and other shop.

SOCIAL SPACE

Three open balconies**.** Lie on top of the roof

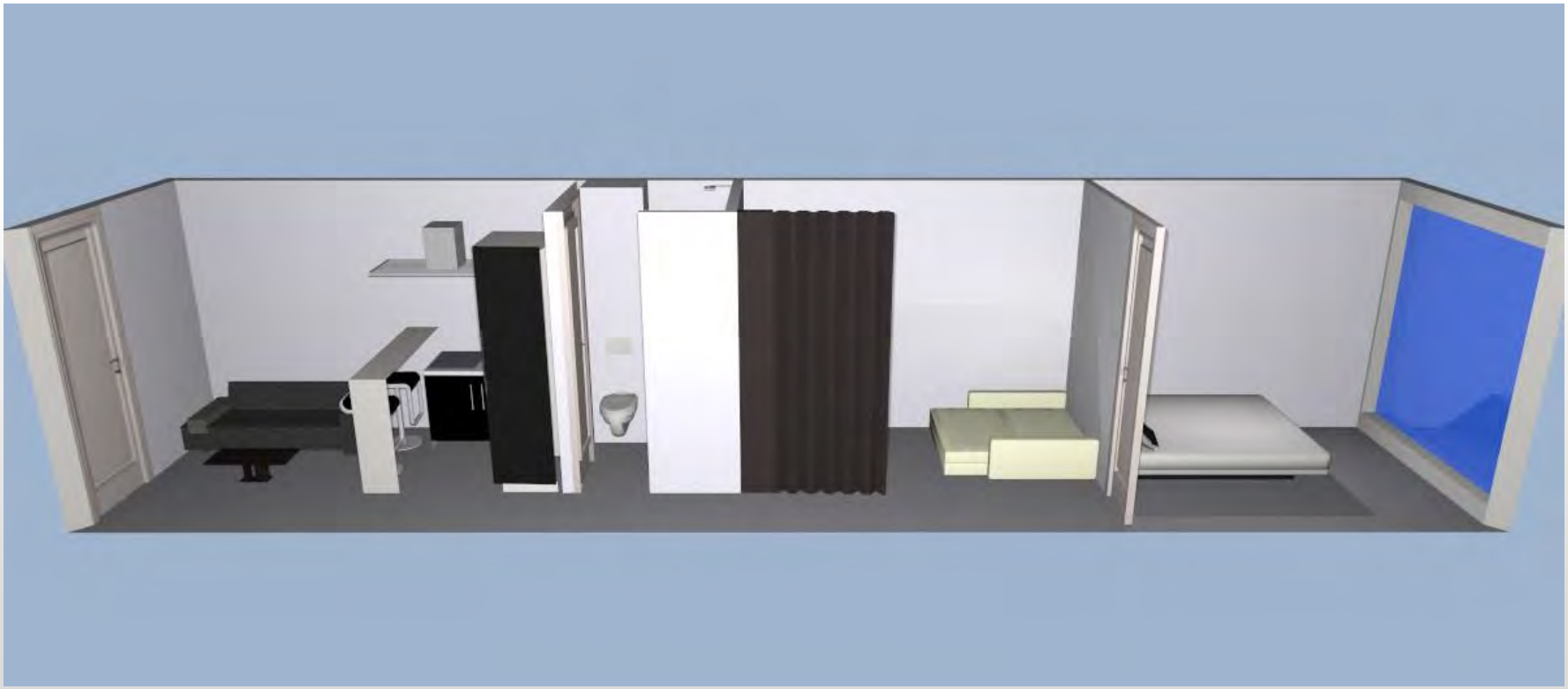


RESIDENTIAL SPACE

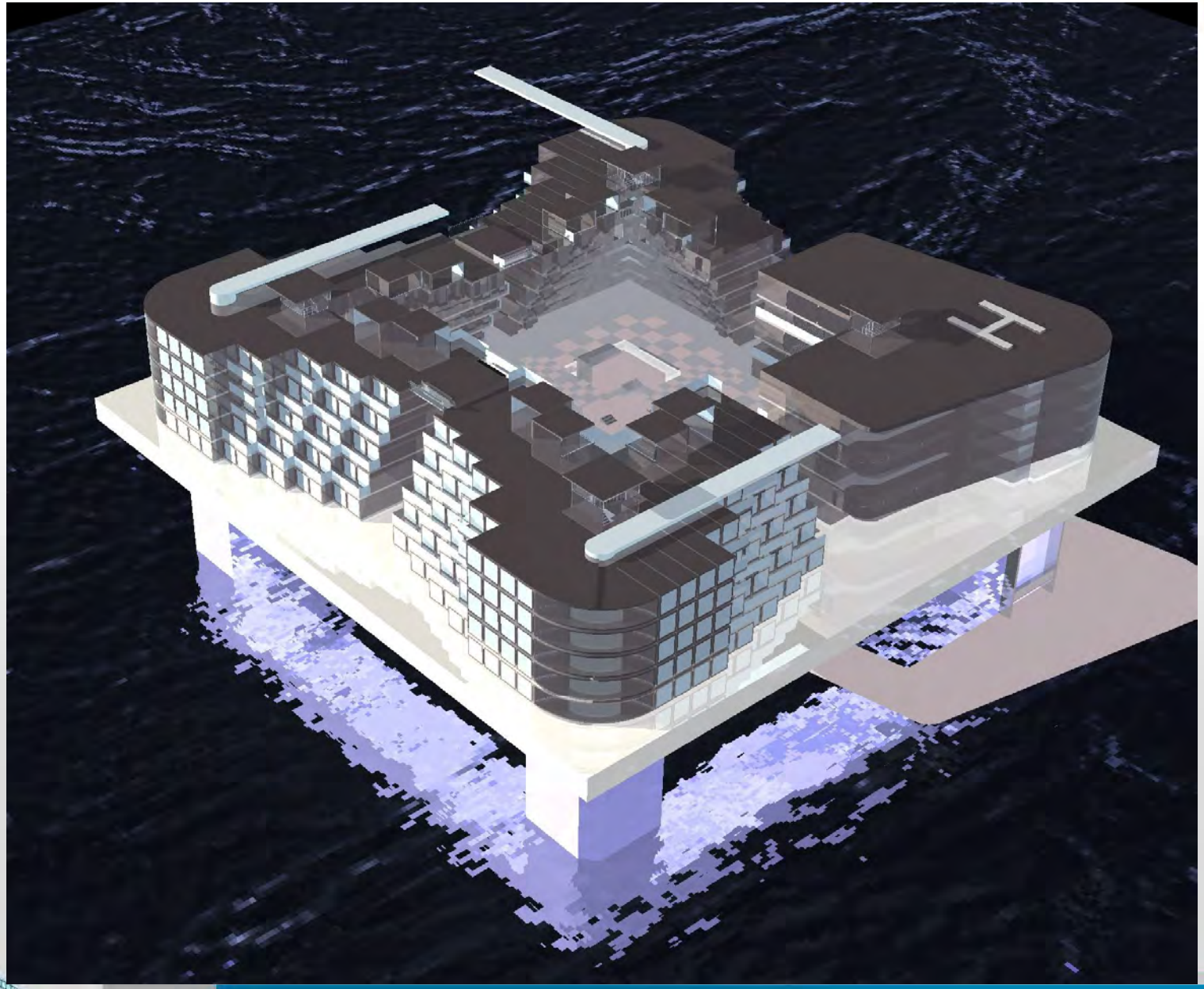
300 Shipping containers, each with area of 280 ft2, take up the majority of the platform space.

TYPE 1

TYPE 2



TYPE 3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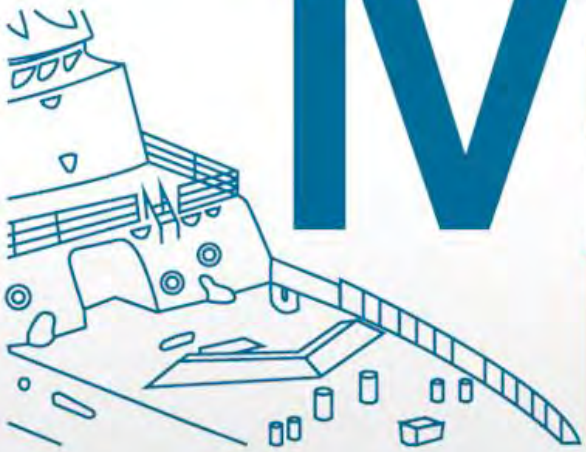
THANK YOU!

If you want to know more, please write to
linast00@gmail.com
Lina Suárez



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