BIP

BLENDED INTENSIVE PROGRAMME DE ERASMUS+

CIDADE DO ACOLHIMENTO

HOST CITY

ARQUITETURA ISMAT

2022 ¹⁸/₂₂ JUL

URBANIDADE FLUTUANTE

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URBANIDADE FLUTUANTE

Instituto Superior Manuel Teixeira Gomes | Mestrado Integrado em Arquitectura
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Host City: The Programme
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The Blended Intensive Programme BIP – Cidade do Acolhimento | Host City is framed within the precepts dictated by the Higher Education Mobility Handbook. In the current case, *"Host Citiy"* a multinational training program supported by a multidisciplinary curriculum, designed to promote the mobility and meeting among institutional partners, both established and newly formed.

True to the innovation effort that generically supports the Blended Intensive Programmes of the Erasmus + universe, this training program, to be developed both as online and in person environment, is structured to sustain the approach of a difficult social challenge: how to host the several waves of migrants – refugees and others – in a costal urban structure, simultaneously facing the challenges connected to a sudden and unplanned increase of its population, the harmonious integration of different ways of life within the local culture, and the change of the urban and rural landscape.

BIP *"Host City"* is one more phase of a continuous labour of investigation and proposals developed by MIA-ISMAT. It's integrated in a cycle of international workshops, where this problematic has been approached. It constitutes a moment of learning based on investigation, according to research *by design* program, which will address the process of metamorphosis of the city that is flexible, permanent but structurally reversible, respecting the local identity and simultaneously originating a future capable of, from a concrete location, providing a dignified and qualified living to its population - natives and outsiders.

It is also understood that any contemporary result should be supported in natural based solutions; to understand and promote a circular, sustainable society. It should propose ways of dealing with global challenges, in which stand out climate change and the predicted ocean level rise.

Beyond the available sources and the permanent keeping up with the state of the art, BIP *"Host City"* is supported by a series of investigations, both finished and in development, which gave birth to doctorate thesis, integrated masters' degree dissertations.

Host City

1st phase of the blended intensive program [online]
6.may.2022
On-line conference with the MIA-ISMAT senior students' presentation of the projects in development - Presentation of the work developed by the students within the scope of the BIP theme, to prepare the work to be developed in the workshop.
20.May.2022
On-line conference with the UNICH senior students' presentation of the projects in development - Presentation of the work developed by the students within the scope of the BIP theme, to prepare the work to be developed in the workshop.
30.May.2022
On-line conference with the US senior students' presentation of the projects in development - Presentation of the work developed by the students within the scope of the BIP theme, to prepare the work to be developed in the workshop.

2nd phase of the blended intensive program [in person]
18 – 23 July 2022
Workshop in Portimão [ISMAT]
Lectures by: José Carvalho [ISMAT] + Josep Peréz Muñoz [USevilha] + Massimo Angrilli [UPescara] + Domenico Potenza [UPescara] + Silvia Coverino [GUC]

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[U-SEVILHA] Tomás Castro Alcántara+ Penelope Trujillo + Mário Diaz + Mariam Diaz + José Fajardo +António Palomino

[01]
Acondicionamiento de la margen derecha del rio Guadalquivir entre los puentes de San Telmo y de Triana. Sevilla
Conditioning of the right bank of the Guadalquivir river between the San Telmo and Triana bridges. Seville
José Manuel Pérez Muñoz + José María Morillo Sánchez
PhD Architects
Escuela Técnica Superior de Arquitectura. Universidad de Sevilla.

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Resumen
Intervención realizada por mrpr arquitectos con la intención de recuperar desde concepciones contemporáneas el espacio de la margen derecha del río Guadalquivir en el tramo delimitado desde el puente de San Telmo hasta el Puente de Triana que en el proceso se fue reduciendo quedándose en el tramo que va desde el Kiosko de las Flores a la Comisaría de policía -el lugar ocupado históricamente por el muelle camaronero-, integrándolo en el tejido urbano mediante un itinerario y un lugar de estancia y mirador, que intensifique la relación con el medio, enriquezca la experiencia visual y espacial de la zona y acceda a la lámina de agua, permitiendo registrar con comodidad este área de difícil y en algunos puntos, restringido acceso, conservando y respetando las peculiares características topográficas, urbanas, sociales e, históricas del lugar, -desniveles, registros transversales y vegetación de ribera.

Palabras clave: Sevilla; Betis; lugar; *waterfron*t; muelle; camaronero

Abstract
Intervention carried out by mrpr architects with the intention of recovering from contemporary conceptions the space on the right bank of the Guadalquivir river in the section delimited from the San Telmo bridge to the Triana bridge, which in the process was reduced, remaining in the section that goes from the Kiosko de las Flores to the Police Station -the place historically occupied by the shrimp dock-, integrating it into the urban fabric through an itinerary and a place to stay and a viewpoint, which intensifies the relationship with the environment, enriches the visual experience and spatial of the area and access the water table, allowing you to easily search this difficult area and in some points, restricted access, conserving and respecting the peculiar topographical, urban, social and historical characteristics of the place, -slopes, registers transversal and riparian vegetation.

Keywords: Sevila; Betis; place; waterfront; dock; camaronero

Introducción
La margen derecha natural del rio Guadalquivir se consolida como ribera formalizada a partir del siglo XI, pues ya consta en el año 1022 del carácter urbano de Triana; sin embargo, no fue hasta 1171 cuando comenzó su delimitación. Es indudable que anteriormente Triana estuvo ocupada -al menos desde la época romana- por actividades de pescadores, barqueros, pequeñas alfarerías y por un comercio fluvial incipiente. La antigua vereda que por allí discurría con la construcción del puente de barcas y el castillo se fracciona en dos partes. Una la trasera de la calle Castilla y la otra comprendida entre el Altozano hasta los Puertos. Es tras la conquista cuando este último tramo, al que nos referimos aquí como el origen de la calle Betis, comienza a

Figura 1_Barrio de Triana Ca, 1931-1933. Fototeca Municipal, archivo Sánchez del Prado.

Figura 2_Torre del Oro desde el muelle camaronero. Fotografía Lucien Levy 1882

poblarse por el creciente auge de la navegación y el comercio. La calle que se va formando por una serie de casas paralelas al río se cita por primera vez como calle del Rey en el Padrón de 1431. Su nombre ha fluctuado entre "calle", "acera", "vera" u "orilla del río" (1433 a 1691), hasta el actual de calle Betis que data de 1859.

La calle alcanzó su cenit durante el comercio con las Indias que la convirtió en la más importante del arrabal, y donde abundaron los edificios notables, las hospederías, casas de baño, lugares de divertimiento... etc. y donde se acogían a los componentes de las flotas, todo ello con independencia de su gran actividad industrial y comercial concentrada más en la zona de los puertos. La pérdida de aquel comercio, la desaparición de la Cofradía de Mareantes y las crecientes crecidas del Guadalquivir acabaron por arruinarla. Fue en el mes de junio de 1787 cuando se dio principio a la construcción de un gran murallón sobre pilotaje que evitó que cayesen muchas casas de su orilla, cuyos cimientos habían sido abatidos por las aguas de tal modo, que en algunos parajes apenas si podía pasar una persona. El murallón que partía desde la habitación del resguardo del puente se continuó en años sucesivos hasta la calle Duarte construyéndose en su longitud **dos muelles con rampas** (figura 1) que permitían llegar hasta los barcos con las bestias que transportaban los efectos de embarque y desembarque y que aún se conservan en la actualidad.

De esta forma quedó entre el río y las casas un espacio capaz de paso para tres coches pareados. El resto de la calle no necesitó de esta obra de defensa por encontrarse las casas más separadas de la orilla.

En el siglo XVI existían dos muelles en la orilla de Triana, uno el muelle de mulas o muelas de donde el 10 de agosto de 1519 partió la expedición de Magallanes con el objetivo de abrir una ruta comercial con las islas de las especias por occidente, buscando un paso que comunicara el océano Atlántico y el océano Pacífico, -que derivó en la primera circunnavegación del planeta- y otro aguas arriba de este punto, que se siguió manteniendo hasta mediados del siglo XX **el muelle camaronero** (figura 2).

Hoy en día no queda vestigio alguno de este último espacio, salvo unos cuantos noráis diseminados por la zona que hablan de su pasado marinero.

Contexto

"En el paisaje fluvial urbano se reconocen la ciudad y la naturaleza. El río se convierte en cultura cuando penetra la ciudad. La ciudad se abre a la naturaleza a través del río" (Pellicer, 2002 p. 283).

En la actualidad la orilla de la calle Betis constituye uno de los espacios libres más peculiares y significativos de la ciudad, tanto por su valor histórico como por ser un referente visual del barrio de Triana pero, paradójicamente, a pesar de su singularidad, dicho espacio se encuentra infrautilizado, debido fundamentalmente a dos factores, sus condiciones topográficas y la difícil o nula accesibilidad de la zona, al estar ocupada por concesiones administrativas hosteleras que dificultan y, a veces no permiten, la permeabilidad del espacio (figura 3).

Figure 3_Calle Betis, la margen derecha del rio Guadalquivir a su paso por Sevilla entre el puente de Triana y el puente de San Telmo. Fotografía Jesús Granada

Dentro de éste tramo de río se encuentran dos zonas claramente diferenciadas, una que va desde el puente de Triana hasta la calle Duarte y la otra desde esa misma calle hasta el puente de San Telmo.

La primera se caracteriza fundamentalmente por la imponente presencia del malecón (iniciada su construcción en 1.787 para proteger las viviendas de la actual calle Betis de las avenidas del río) y sus rampas de acceso a los embarcaderos que desembocan en un paseo estrecho de reducidas dimensiones y difícil tránsito por donde recorrer, a cota de la lámina de agua, el tramo de río que va desde la demolida Comisaría de Policía hasta el puente de Triana conectándose por debajo del mismo con el Paseo de Nuestra Señora de la O.

La otra banda que va desde la calle Duarte se configura como una gran masa arbórea dispuesta sobre un terreno de fuerte pendiente, en donde en su parte superior, sobre una franja plana a cota de la calle Betis, se disponen distintas concesiones administrativas hosteleras que rompen la continuidad de la misma y desvirtúa la imagen de paseo o bosque de ribera que hasta hace relativamente poco tiempo mantenía cuando era puerto o muelle camaronero. La accesibilidad a la lámina de agua es aquí aún más difícil que en el caso anterior debido al vallado de las concesiones, a la frondosa vegetación y las fuertes pendientes que existen una vez sobrepasada la franja plana antes mencionada. Si bien el proyecto inicial corresponde a todo el ámbito descrito (figura 3) la obra ejecutada se ubica en la intersección de las dos zonas tan diferenciadas y se presenta dicha actuación como una oportunidad de introducir un nexo de unión entre ambas, propugnando así una continuidad en el paseo de ribera, tanto al nivel de la cota de agua como a nivel de la calle Betis (figura 4).

Objetivos, intenciones y planteamiento del proyecto u obra_Principios para el desarrollo sostenible de las áreas de "waterfront" urbano

La redacción de los principios que aquí se exponen, corresponde a la actualización efectuada en 2008 con motivo de la celebración de la Exposición Internacional de Zaragoza (España), que estuvo dedicada al tema del agua.

Estos fueron aprobados por primera vez en el contexto de la "Global Conference on the Urban Future" (URBAN 21) celebrada en Berlín en el año 2000, con ocasión de la Expo 2000 World Exhibition.

Figure 4_ Calle Betis, la margen derecha del rio Guadalquivir a su paso por Sevilla entre el kiosko de las Flores y la Comisaría de policía. Antiguo muelle camaronero

01. Asegurar la calidad del agua y el medio ambiente.
02. Desarrollar la relación entre los "waterfronts" y la estructura urbana.
03. Respetar la identidad del lugar.
04. Promover la diversidad de actividades, tanto en tierra como en el agua.
05. Garantizar el acceso público al waterfront.

06. Facilitar la colaboración entre el sector público y el privado.
07. La participación pública como elemento de sostenibilidad.
08. La recuperación de los "waterfronts" son proyectos a largo plazo
09. La revitalización de los "waterfronts" es un proceso continuo.
10.   Las operaciones de los "waterfronts" proporcionan beneficios a través de redes internacionales de conocimiento.

En este proyecto es fundamental la consideración del principio 03, en que para respetar la identidad del lugar dice que "El patrimonio colectivo, configurado por objetos, paisaje y naturaleza, deberá ser utilizado como punto de referencia para dar carácter y significado a las operaciones de recuperación de los "waterfronts", y al principio 05 de garantizar el acceso público al "waterfront" que: "deberán ser accesibles física y visualmente, tanto para la población local, como para los visitantes y turistas de todo tipo de edad y nivel de renta. Los espacios públicos deben construirse con niveles de alta calidad, que permitan un uso intensivo de los mismos" (Wasserstadt GmbH de Berlín, 2000).

Objetivos

Con independencia del respeto general y particular a los principios anteriormente mencionados se establecen los siguientes objetivos concretos y adecuados a las características del lugar.

01. Protección y puesta en valor de todos aquellos elementos de interés, tanto arquitectónico, histórico, paisajístico, urbano y todos aquellos que definan el ámbito y de sus relaciones entre este y resto de la ciudad.
02. Ordenación general del frente fluvial, con un compromiso de articulación entre la ciudad consolidada, y el río, entendiendo éste como la calle ancha de la ciudad.
03. Control de los usos, evitándose los usos degradantes o inadecuados, tanto en las márgenes del río como en la lámina de agua.
04. Incrementar la utilización de aquellas márgenes con bajo nivel de uso, mediante la implantación de equipamientos y servicios deficitarios en la ciudad.
    05. Mejora de la accesibilidad a la margen desde diferentes puntos, eliminando todas aquellas barreras existentes y estableciéndose nuevos registros, pudiendo para ello eliminar instalaciones y otros elementos que obstaculicen, visual y físicamente la relación con el río.
    06. Establecer, en toda su longitud, un circuito peatonal de ribera que permita la accesibilidad, disfrute, mantenimiento y conservación de sus orillas.

Planteamiento del proyecto

El contexto de un proyecto, el lugar, el entorno en el que está envuelto, es mucho más amplio que el pedazo de ciudad o de terreno sobre el que se va a asentar. (Soriano y Palacios, 2001, p. 137).
El proyecto pretende recuperar desde concepciones contemporáneas, los dos tramos claramente diferenciados dentro del ámbito, al mismo tiempo que dotarlos de un nexo de unión entre ellos, un recorrido, fundamentalmente a la cota de la lámina de agua que permita registrar con comodidad este espacio libre de tan difícil acceso (figura 5 y 6). Dicho recorrido se plantea en el tramo del Malecón como una gran peana a los pies del murallón existente, con las dimensiones adecuadas para poderlo transitar y a cota del embarcadero más cercano al puente de Triana, y esta peana se complementa con otras plataformas flotantes o fijas dispuestas a distintas cotas que funcionan como lugares de estancia en posiciones más privilegiadas dentro de la lámina de agua evocando las embarcaciones y barcos varados en esa orilla del rio a principios de Siglo. (figura 7)
El otro tramo del recorrido, desde la calle Duarte, donde se sitúa la comisaría de Policía, hasta el puente de San Telmo tiene un carácter distinto, no tan lineal, más sinuoso, introduciéndose por el bosque de ribera, sorteando las edificaciones a mantener y permitiendo una visión matizada de la orilla del rió, entre la espesa vegetación, terminando en un embarcadero donde se ubica la taberna del puerto con un gran pantalán flotante por delante del restaurante Río Grande.
Si en el tramo del malecón la idea fundamental es potenciar la rotundidad y la imagen del mismo, aquí la intención es recuperar el bosque de ribera desde posiciones claramente contemporáneas, en donde las no eclécticas ni románticas edificaciones actuales aparezcan como elementos puntuales de pequeña escala dentro de una gran masa arbórea. (figura 8)

Figura 5_Maqueta del Proyecto inicial. Tramo Puente de San Telmo Puente de Triana. Fotografía mrpr arquitectos

Figura 6_Fotomontaje del Proyecto inicial. Tramo Puente de San Telmo Puente de Triana. Fotografía mrpr arquitectos
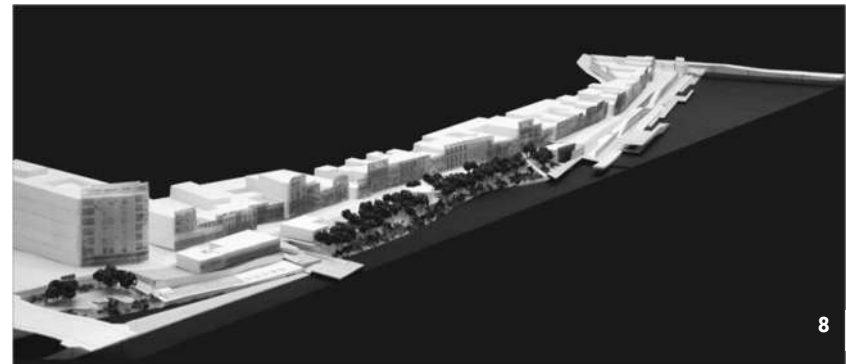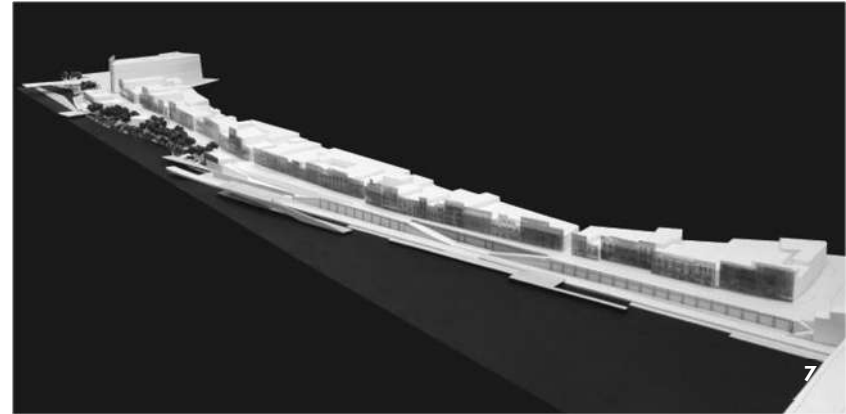
Figura 7_Maqueta del Proyecto inicial. Tramo Puente de San Telmo Puente de Triana. Fotografía mrpr arquitectos

Figura 8_Maqueta del Proyecto inicial. Tramo Puente de San Telmo Puente de Triana. Fotografía mrpr arquitectos

Figura 9_ Nuevo muelle camaronero. Vista desde la calle Betis. Fotografía mrpr arquitectos

Al tener que reducir el tamaño de la intervención y ceñirnos al tramo entre el Kiosko de las Flores y la Comisaría de policía -históricamente **el muelle camaronero** y nombre que recibirá el espacio público- (figura 9), la propuesta mantiene los mismos argumentos proyectuales, se integra en el tejido urbano mediante un itinerario, que intensifica la relación con el medio, acceda a la lámina de agua, y permita registrar con comodidad este área de tradicionalmente difícil acceso, que conserve y respete las peculiares características topográficas, urbanas, sociales e, históricas del lugar, -desniveles, registros transversales y exhuberancia de vegetación. (figura 9)

Dicho itinerario, que enriquece la experiencia visual y espacial de la zona mediante una relación sensible con el entorno, tiene un carácter no lineal, sinuoso, amplia la calle Betis dilatando sus límites, se introduce sinuosamente por la espesa vegetación del bosque de ribera, sortea la arboleda y permite una visión m atizada y perpendicular desde los miradores propuestos de la orilla opuesta que contrasta con la sorprendente y nítida perspectiva que se va haciendo presente al descender por la suave rampa hasta la plataforma inferior, una superficie plana, etérea, de líneas rectas y precisas que funciona como mirador y lugar de estancia. (figura 10 y 11)

Si a la cota de la lámina de agua la idea fundamental es potenciar la rotundidad y la imagen del paseo configurando registros paralelos a la orilla que, en un futuro permitan continuar este incipiente paseo fluvial en la margen derecha de la dársena, en la cota superior la intención es recuperar el bosque de ribera, en donde tan solo aparezcan pequeñas aberturas transversales -como los accesos a los pantalanes del antiguo puerto camaronero-, que horaden la gran masa arbórea y se relacionen visualmente con la plataforma inferior, presentando todo su conjunto desde la orilla opuesta una sutil, liviana y delicada intervención donde el protagonismo lo adquiera el bosque de ribera (figura 12).

Ramón Queiro, describe la idea de la intervención como: "La reflexión histórica de la vinculación con la lámina de agua" y se resuelve mediante:

"La búsqueda del registro de la lámina de agua como espacio de esparcimiento a través de una suave rampa y la dilatación de la calle Betis a través de un sistema de plazas-mirador que se asoman al río elevadas, rememorando los pantalanes históricos del muelle camaronero." (Queiro, 2016, p. 193)
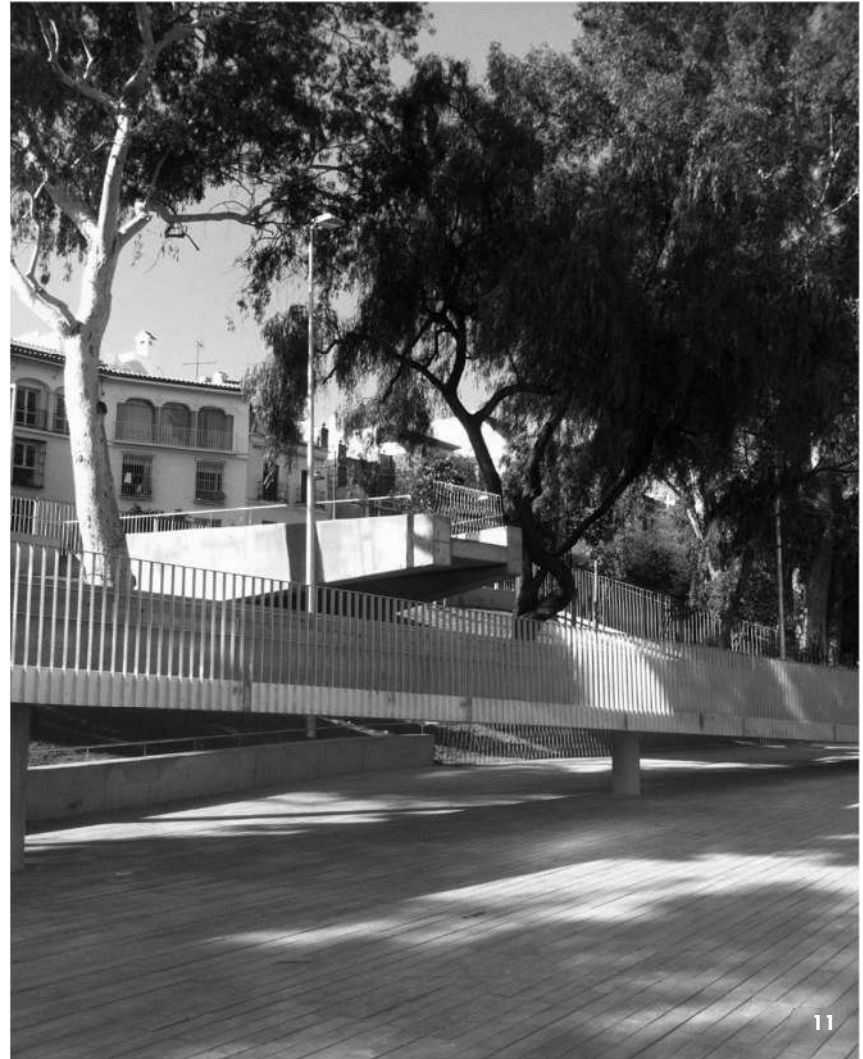
Figura 10 y 11_ Nuevo muelle camaronero. Vista desde la plataforma inferior. Fotografía mrpr arquitectos

Figura 12_ Nuevo muelle camaronero. Vista desde la calle Betis. Fotografía mrpr arquitectos

Figura 13 y 14_ Nuevo muelle camaronero. Vista desde la margen izquierda. Fotografía mrpr arquitectos

Conclusiones

En 2011 a la pregunta de Anatxu Zabalbeascoa ¿Cómo lidiar con lo existente? para el diario El País de 21 de febrero Emilio Tuñón Y Luis Moreno Mansilla respondían:

> "Lo existente es el marco de actuación del arquitecto. Para la producción de la arquitectura, el respeto a ese marco es fundamental, tanto hablando en términos relativos al paisaje, como a la ciudad o al contexto histórico. Pero es fundamental entender que lo existente no se refiere exclusivamente a una realidad física material, sino que existen otro tipo de contextos más amplios que están ligados a lo intangible… es lo que nosotros llamamos el "concepto ampliado del contexto": la memoria individual y la memoria colectiva, los anhelos de las personas y las necesidades de la sociedad, los lenguajes individuales y los lenguajes universales…" (Zabalbeascoa, 2011).

Entender que el proyecto surge de la interpretación del lugar y, que ese lugar, no es solo el hecho físico, sino que es además lo social, lo cultural, lo normativo, lo económico, lo político, es también la historia y el tiempo, -siempre entendiéndolo como circunstancia o momento -, hace que la operación tenga unas mínimas garantías de éxito pues, para Francesc Muñoz en su artículo *Anatomía de la urbanalización: Arquitectura europea en los waterfronts*, manifiesta que las experiencias más exitosas sobre la regeneración urbana de los entornos marítimos y fluviales vienen de "una estrategia de contextualización, es decir, configurar el proceso de transformación del frente marítimo o fluvial a partir de las características físicas pero, sobre todo, sociales y culturales del contexto local" (Muñoz, 2019, p. 84) evitando lo que él llama un urbanismo de copy&paste o *urbanalización* producto de una globalización malentendida que homogeniza y banaliza las distintas intervenciones (figuras 13 y 14).

Ese entendimiento del lugar coincide con lo que las sociedades demandan según manifiesta Cecilia Galimberti en las conclusiones su artículo: Reflexiones en torno a las transformaciones de waterfronts contemporáneas, y no es más que "la necesidad de una mirada atenta a las componentes naturales y su preservación; como también a la revalorización de las huellas históricas identitarias del pasado de la comunidad." (Galimberti, 2014, p. 35)

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[02]

BEYOND SHORELINES: FLOATING SOLUTIONS FOR CLIMATE ADAPTATION
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BEYOND SHORELINES: FLOATING SOLUTIONS FOR CLIMATE ADAPTATION

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Abstract

The present work is based on a lecture performed in Portugal which aimed to provide designers with general notions on floating solutions through the description of different water-based dwellings and the analysis of a typical floating district in The Netherlands. It also intended to note the importance of Floating Architecture in regard to climate resilience and adaptation strategies.
The dramatic transformations Earth is experiencing due to the rising of temperatures focus attention on innovative solutions. Great progress is being made in relation to water management and infrastructures, creating new previously unthought of possibilities. Solutions are tackling coastal risk in areas threatened by severe weather conditions and sea level rise. Lately, floating cities were mentioned within the framework of adaptation strategies set out by the European Union in order to become climate resilient by 2050. Hence, overcoming the understanding of water as a barrier or rather a hostile environment has prompted research toward new models of urbanization between land and water, becoming a major focus of architecture and design. In this context, the municipality of Portimão, standing on the mouth of the Arade river, represents a case in point to investigate, since its territory is listed among those geographical areas at high risk. It is forecast that the city will be underwater in the next decade and its coastline will change dramatically. Visions of Portimão waterfront by the 2050 were formulated within the ERASMUS + programme and Blended Intensive Programmes BIP, international gathering of academics and young designers.

Brief notions of history: Japanese visions of marine cities

In order to have a broad understanding of the topic, it seemed convenient to take the long way round, and begin this presentation debating about the principles and ideas on which water urbanization studies are based. Cutting-edge concepts, created in Japan the last century, are still inspiring and contemporary.
Building cities on water is not a new concept. The potentials of floating constructions were already investigated by the Japanese architects of the Metabolism Movement that, during the 60's produced several plans for the expansion of Tokyo on the bay. Similarly to other metropolis around the world, in the post-war time, the Japanese capital was experiencing a peak of urban sprawl due to industrialization demanding new soil to meet the needs of a growing city: housing, manufacturing, etc. Metabolism philosophy moved away from conventional modus operandi used on land: *"Contrary to the architecture of the past, contemporary architecture must be capable of responding to the changing needs of the contemporary era"*.[1]

The manifesto of the emerging movement claimed that *"the purpose of Marine City is neither intended to enlarge the land nor to escape from the land,"* is instead a *"new urban archetype for living on the sea"* [1]. It is *"an answer to the decreasing of living standards and the unstable political and social situation due to the limitation of land"*.[1]

In their works, Metabolism architects emphasized concepts of sustainable growth, resiliency and adaptability in combination with principles of systemic organization and hierarchical order; cities are seen as a living organism that evolve through megastructures, a system consisting of primary and secondary elements, acknowledging permanent installations such as transportation infrastructures, and the transitional ones addressing the community with its dynamic needs.[2]

Ideas are embodied in the works of Kiyonori Kikutake and Kenzo Tange, respectively the series of *'Marine Cities'* (1958-1963) and *'A plan for Tokyo'* (1960). Overall, their designs explored two basic types of megastructures: the *'floating structure as a concentric city-scale type'* (Fig.1), and the *'Linear Ocean City'* (Fig.2) which instead proposed a shift from a radial centripetal system to a linear development considered more effective for the needs of the contemporary society, for instance mobility.[2]
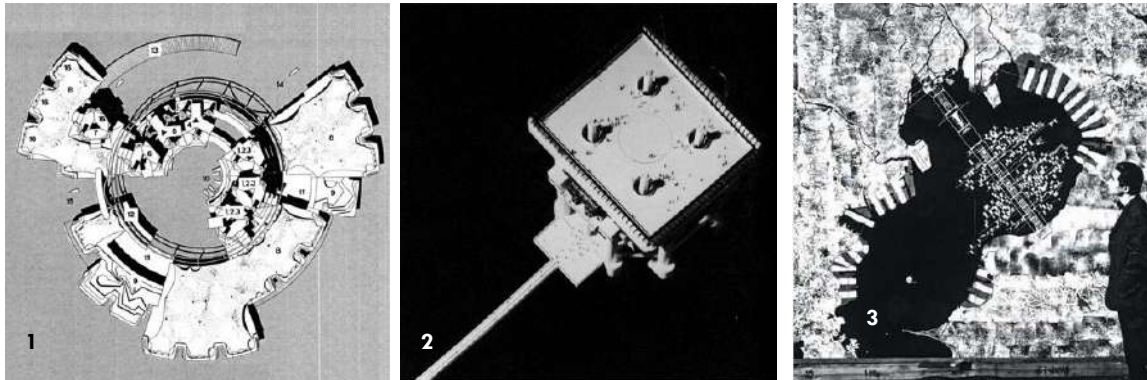

Metabolism urban theories materialized in the Aquapolis, a prototype of a floating city exhibited at the Okinawa Ocean Expo in 1975 [3] (Fig.3). Their attempts to provide a new space organization toward the sea remained utopian ideals until the present day.

Circumstances have changed modern society is preparing to deal with an unprecedent climate crisis. In this context, floating solutions have gained new attention as they are part of a wider strategy of adaptation and resilience to the mutating environment.

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Figure 1_Marine City, Japan 1958, Kiyonori Kikutake
Figure 2_A plan for Tokyo, Kenzo Tange, 1960
Figure 3_Aquapolis, Japan 1975, Kiyonori Kikutake

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Flooding, sea level rise, deterioration of the marine ecosystem are consequences of the ongoing atmospheric transformation threatening coastal communities and internal waters. For this reason, in 2021 floating urban developments were included in the joint statement on accelerating climate adaptation *'1000 Cities Adapt Now'* global program; initiated by the Global Centre on Adaptation, UN Habitat, World Resources Institute and the Resilient Cities Network. Moreover they were included in *'IPCC Report Climate Change 2022: Impacts, Adaptation and Vulnerability'*.
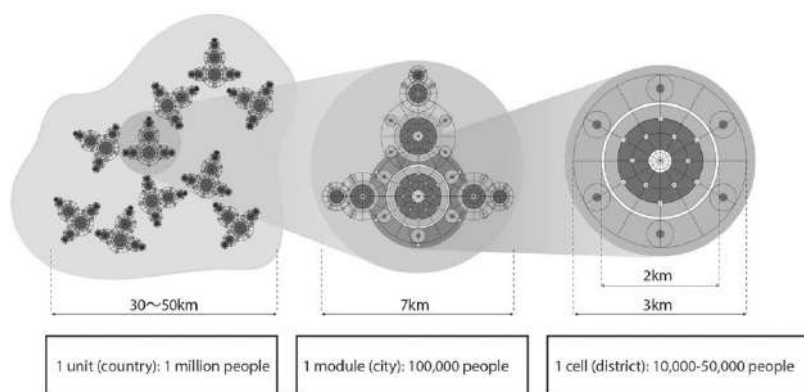
Dwelling types

Offshore cities inspired by Japanese visions are on the horizon (Fig. 2). Although designs of self-sufficient and carbon negative artificial islands are ready to be build, there are issues of sociology, finance and regulation that need further studies. Passage from land to water, initially will happen by implementing three principal strategies: creating neighbourhoods in sheltered water, developing food and energy floating farms and relocating industrial assets on water to free up land and mitigate exploitation.

Great steps forward have been made in the Northern Europe, in countries were the strong presence of water in the environment has a significant role in communities' lives. Sensibility to climate issues as well as awareness of advantages and risks, were essential in order to build an attitude of open-mindedness toward living at sea. The Netherlands, due to its peculiar geology, has been affected by great floodings and natural catastrophes throughout history. The Dutch mastered water management technics in order to protect the country's borders and create new lands. In this context, floating solutions have been widely implemented and exploration is ongoing. Pioneering projects of buildings such as houses, farms, offices and entire floating neighbourhoods can be observed on site. Essential is the contribution of local enterprises and research institutions such as Waterstudio, Blue 21 and the Maritime Research Institute MARIN to mention a few.

Overall, there are two main types of water-based architectures, amphibious and floating, both conceived for internal and sheltered waters. Above the water line, they appear as regular land constructions while below, they generally sit on a concrete watertight movable caisson. They are fastened to guiding piles which will hold them in place in the unlucky event of high water. The amphibious rest on dry ground during the period of regular water level, while the floating types are always submerged. Foundations are designed to withstand water stress; technically, the basement is poured in one shot to avoid cracks that could compromise the structural integrity and buoyancy. In addition, tubs can be solid - filled up with floating materials - or

30~50km   7km   2km / 3km

1 unit (country): 1 million people   1 module (city): 100,000 people   1 cell (district): 10,000-50,000 people

Figure 4_Offshore cities, Green Float 2010 by Shimizu Corporation, Japan

compartmentalized in order to reduce the risk of sinking caused by an unexpected event such as a collision with a ship. Above the pontoon, constructions must be as light as possible to maximize the buoyant force [4].

Stability and trim, safety on board, comfort, mooring and accessibility are design aspects involving simultaneously expertise of maritime engineering, architecture and urban design.

Residences could be amphibious or floating, both offer the most a resilient solution according to the geographical and atmospheric conditions of the hosting site (Fig.5d).

At De Gouden Ham, a recreational water basin in the River Maas at Maasbommel in The Netherlands (Fig.5a), within a programme of *'adaptive construction'*, sponsored by the Netherlands' Ministry of Transport, thirty-four flood-resilient homes were launched in 2005 (Fig.5b, c). Maasbommel, included in the list of EMAB locations at flood risk, was set as an example for the future, showing how buildings can comply with rising sea level and increasing rainfall caused by climate changes. It was about a large plan of infrastructures at the scale of landscape, including reinforcement of dykes, widening riverbeds and instating water storages to control flood levels. The loss of land on which to build persuaded the Government that a program of water-based urbanization, including amphibious and floating homes, was necessary and indeed the most efficient solution to double ground area with artificial waterbodies. [4 + 5]

Figure 5_Gouden Kust, Maasbommel, The Netherlands

Organization of a floating district: IJburg, Amsterdam, The Netherlands

Planning a floating district is a work in progress requiring dedicated standards and design criteria. The definition of the legal status, obligations and rights of water-based properties represents a crucial subject that will need further investigations. The pioneering project of IJburg, the first large-scale floating district in Europe, opened the discussion. From the beginning, the Government embraced a regulatory framework in which floating homes were treated as land-based properties. Selling plots on water appeared beneficial to overcome the controversial status of floating dwellings in between movable and unmovable properties meanwhile increasing the popularity of the project. In this context, owners could benefit from equal taxation in regard to the system applied to traditional real estate. However, because of banks concern about the potential drop of collateral value related to new issues, unknown before, such us the separation between building and plot as well as the likelihood of damages to the submerged foundations, finally, it was concluded that although treated as real estate from the Government, floating homes could be finances and insured only as movable properties. [4+6]
Overall, the floating district consists of fifty-five water-based dwellings docked in a water storage of IJburg, an artificial island and a residential neighbourhood of Amsterdam (Fig.6a, b). The water level inside the storage is controlled by a dam with a lock through which units were transported to their plots. Lock size defined the dimensions of the living units as follow: 7 by 10 meters the pontoon (beam, length overall), 7.5 meters the high above the water line, 1.5 meters the draught (Fig.6d). The water quality, inside the hosting basin, is ensured by a minimum water depth of one meter beneath the concrete caisson, in order to guarantee a regular flow of water. Utilities are delivered with flexible piping and extra-long cables connected to the city infrastructure, to accommodate water level variations. Furthermore, jetties structural qualities were implemented in order to provide escape routes in case of an emergency and perform as a collective and public space.
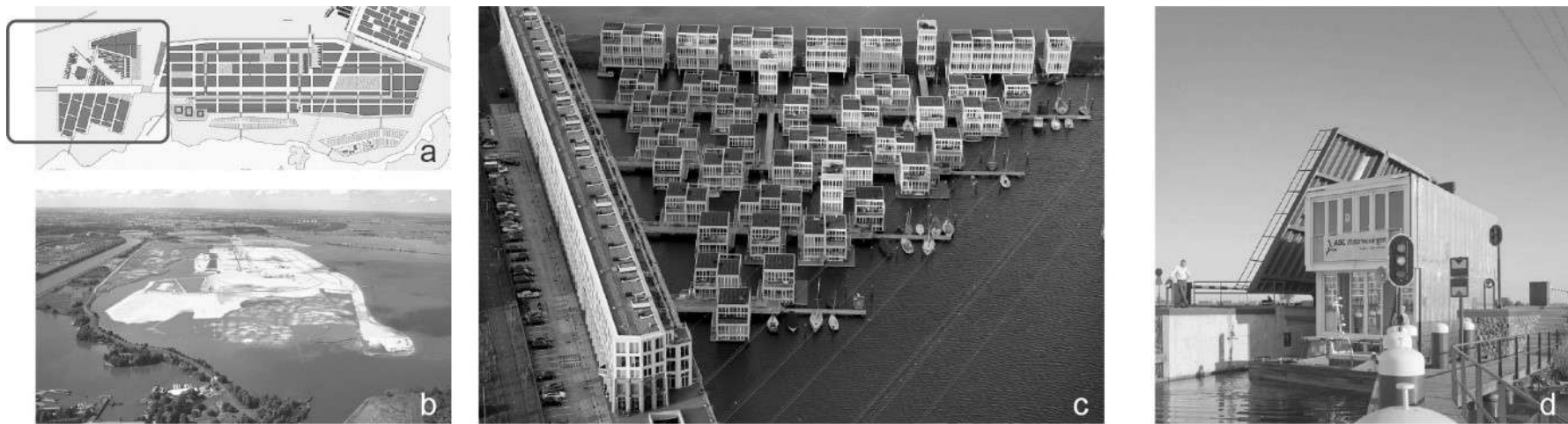

Figure 6_IJburg, Steigereiland, Amsterdam, The Netherlands

The district is well integrated in the urban fabric, efficiently connected to the city through public transportation, bicycle routes, etc. It also provides outdoor recreational spaces for the residents in a relative quiet area. Finally, the transitional character of the whole installation, is probably the most innovative feature from an environmental point of view; dwellings and jetties can be towed away without leaving traces of their presence. In its complexity, IJburg floating district was and remains a design model for future projects to come (Fig.6c).

Similar cases included in the presentation were the Het Nieuwe Water in Westland and the Acquavista in Almere, both located in The Netherlands.

Relocating public spaces, economic and industrial assets on water

Design principles applied to water-based dwellings have been replicated on floating architectures for multiple uses. The list is wide: dorms in Copenhagen (Fig.7a), squares in the canals of Hamburg (Fig.7b), a floating farm hosting thirty-five cows (Fig.7c) and a pavilion in Rotterdam (Fig.7e), a floating solar farm in Portugal (Fig.7f) and there are also plans for agriculture on water. The pieces of the puzzle are ready to come together. Relocating city's public and industrial assets on water would be an advantage, especially, in densely populated areas affected by land shortage for building and farming, etc.
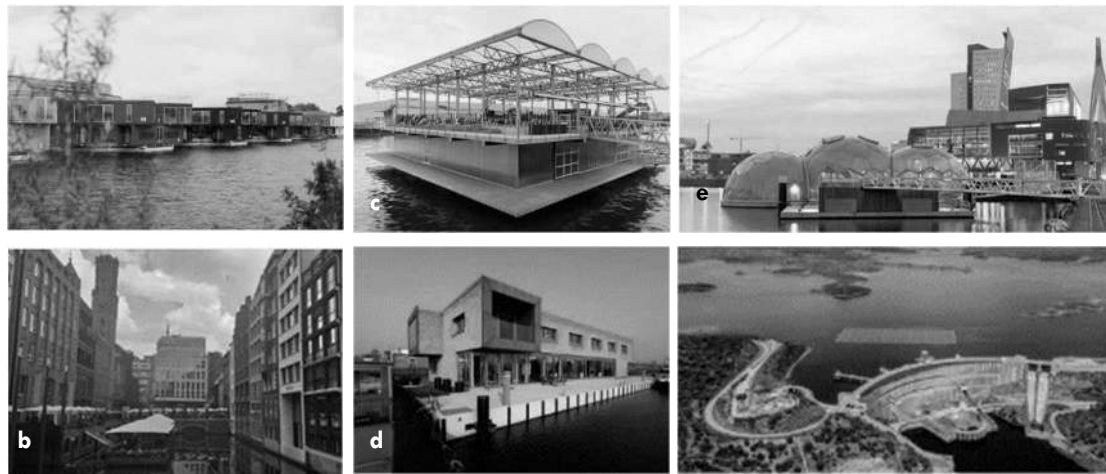

Figure 7_Floating buildings: a-b, Dorms Urban Rigger; c, Farm Rotterdam; d, Office Amsterdam; e, Pavilion Rotterdam; f, Solar farm Portugal

The crucial question is are people willing to live and work on a platform? this is a crucial question. Encouraging signals come again from The Netherlands where thousands of people have already moved on to houseboats or homes sometimes forced by the lack of housing, sometimes inspired by the sense of freedom and implied closeness to nature. The physicality of The Netherlands is in itself unsettling, giving that is prone to flooding.

Generally speaking, if people might be doubtful about living on a floating house, not so bizarre should be the idea of spending a few nights sleeping in a boat or a floating resort. Hospitality on water is a successful business if we look at cruise ships for instance; likewise, hotels offer a different client experience and an alternative to traditional land-based hotels. For instance, *Amstel Botel* docked at NDSM Wharf, on the IJ river in Amsterdam, since 2015 is a reference for tourists and also an essential component of the revitalization programme of a former industrial area. A similar case is the *Good Hotel London,* launched in 2017 and located at the historical Royal Victoria Dock on the river Thames. Initially operated as a prison in The Netherlands, it was later transformed into a boutique hotel and carried away on a submersible ship carrier across the North Sea to Britain. Conversion of old ships or barges into hotel vessels, is a strategy of environmental design aiming to reduce the overall carbon footprint generated from production processes, recycling materials and exploiting structural qualities of existing constructions to improve their life span. Impacts of the decommissioning procedures for obsolete offshore platforms was the key topic of a conversion project developed by Knud E. Hansen, a Danish ship design firm, for Sibbern International who intended to realize a floating resort for the Caribbean. The plan was to reuse the structural system of a disused Aker H-3, offshore drilling rig, generally composed of pontoons, columns and top deck, to sustain facades and storeys of the new building.[7] (Fig. 8)
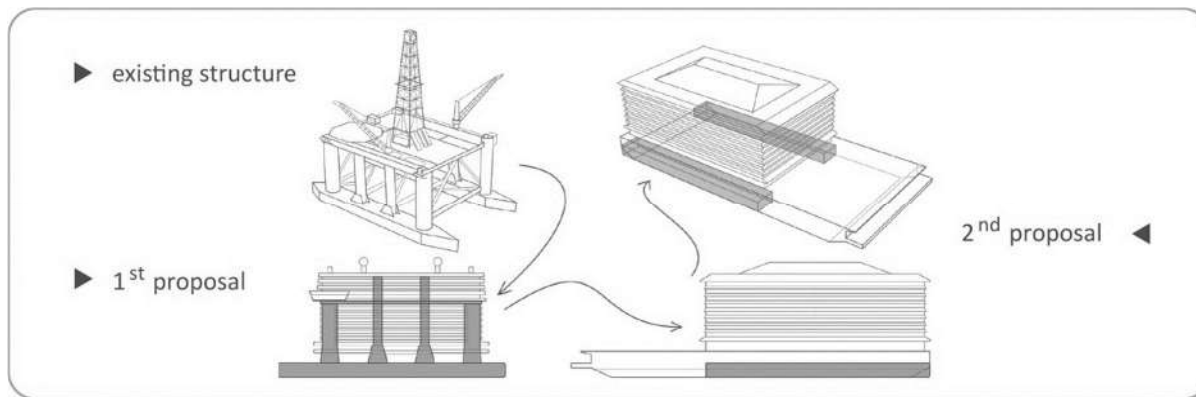

Figure 8_Diagram of conversion of the drilling rig Aker H-3 into a Resort, Knud E. Hansen

To summarize, projects above describe three key features of Floating Architecture: first, water-based hospitality businesses have a positive impact on regeneration programs of neglected neighborhood and docklands areas; second, movable foundations make properties more sustainable, free to go without leaving traces in the hosting environment; third, maritime structures can be reused in order to lower the overall carbon footprint of production activities.

Conclusion

Looking toward the water is a natural aptitude of all those communities whose history is connected to it, to the point that living on floating homes became realistic. Despite the great effort humans have produced to gain protection and control over the water, a new idea is coming into being; living in, rather than fighting against. Lately, floating solutions were included in the agenda of climate resilience and adaptation strategies by governments and institutions, meaning a significant step further in this direction. Amphibius and floating dwellings have been built and tested positively during floods and extreme weather in The Netherlands demonstrating their efficiency in regions impacted by global warming effects. In addition these constructions, represent an answer to land scarcity in congested urban areas, and a sustainable design model to implement in social and private architectures. Movable foundations are a key factor in regard to landscape preservation and overall mitigation of impacts of human activities on Earth. Water-based buildings are *"sustainable because beneficial for the hosting location until it is useful, without leaving traces capable of alter the nature when towed away"*.[8]

In conclusion, the present work intended to provide general knowledge on the topic Floating Architecture to support the design activities concerning the elaboration of ideas for the waterfront of Portimão, threatened by sea level rise, within ERASMUS +, BIP Blended Intensive Programmes held in Portugal. A rethink city's water edges, estimated to change dramatically in few decades, was the call for participants. In this context, floating structures were proposed not only as a solution to create new land, but also as an opportunity to establish a new relationship between artificial and natural spaces, introducing floating elements bridging the two.
Cities on water are not pure speculation nor an escape route from issues we have created on land, instead they represent a sustainable system to evolve urban areas improving adaptation and climate resilience.

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[2] Archeyes Timeless Architecture, Japanese Architecture, Urban Design, Utopian Projects, A plan for Tokyo 1960 / Kenzo Tange, January 2016, https://archeyes.com/plan-tokyo-1960-kenzo-tange/ (Consulted on 26-06-2022);

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[4] Nillesen A L, Singelenberg J, *Architecture and Urbanism on the Water. Amphibious Housing in the Netherlands*, NAi Uitgevers Publishers, Amsterdam 2011, pp. 56-73, ISBN 978-90-5662-780-5;

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[6] Flikkema M, Floating Island Development and Deployment Roadmap, Editor Liselotte van Zaanen and Rowenna Reus-Das, Wageningen 2021, pp. 59-54, https://spaceatsea-project.eu/images/20210106-floating-islands-development-and-deployment-roadmap-final_jan2021_v3.pdf (Consulted on 01-06-2022);

[7] Cascino C, Arini F, *Floating Architecture and conversion of offshore structures: a chronicle of Knud E. Hansen designs*, in WCFS2020 Proceedings of the Second World Conference on Floating Solutions, Rotterdam, Editor Springer Singapore, 2021, pp. 81-97, ISBN978-981-16-2255-7;

[8] Cherubini R A, Botta A, Djuric I, *Floating Squares. A Mediterranean Model*, Franco Angeli Editore, Milano 2016, pp. 42-46, ISBN 978-88-917-4419-7.

[03]

LUBIANA, THE CITY AND THE RIVER
The relationship with water, from problem to new urban resourc
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Ljubljana, like many historic centers in Europe, is one of those cities strongly marked by the presence of water; the relationship with its river, the Ljubljanica, is very ancient, dating back to pre-Roman times and still strong throughout the Middle Ages, when the waters were used for trade, up to the threshold of the nineteenth century. With the construction of the railway, the river loses its original importance, gradually transforming itself into a place of pleasure. A moment of great transformation for the city was the reconstruction, after the earthquake of 1895, supported above all by the help of the Royal Vienna, which contributed to the construction of the new buildings, right along the banks of the Ljubljanica. But the history of the river and its intimate relationship with the city, starting from the 1920s, is all to be ascribed to the continuous and patient work of its great architect Jože Plečnik, capable of going far beyond the arrangement of its banks, with the construction of new bridges and new views on its banks that definitively returned the river to the city, transforming it into the main urban public space.

A great deal of importance in the design of the city is given to the presence of the river that crosses Ljubljana and, in particular, the occasion exploited by Plečnik to transform this natural element into a sort of large public urban space running through the entire inhabited centre of the Špica (the archaeological area at the height of the bifurcation of the Ljubljanica) as far as the locks at Poljane. This is yet another sequence staged by the great master. This element of separation and annoyance is transformed into a sort of urban infrastructure fronted by the city's main public buildings, similar to the Grand Canal in Venice.

It is a bespoke tailored approach of urban re-stitching that employs elements linking the two sides of the river, connected by some of the most beautiful infrastructural projects, including: the Cobblers' Bridge (1933), conceived as a true public square overlooking the water; the Three Bridges (1929-1932) with its two side wings for pedestrians flanking the original central bay in stone, with stairs connecting the level of the city with the level of the river below where tall trees mark the presence of the living natural world flowing below it. There is also the Covered Market (1940-1944) overlooking the river, interrupted by two loggias decorated by columns and crossed by the monumental Butchers' Bridge (a covered bridge that was never built)[1]. Further ahead this monumental section of the river terminates at the Dragon Bridge. From this point onward, there is a return to the organisation of tree-lined avenues that accompany the river all the way to its triumphal arch as Peter Krečič called it «... there is no other way to define the monumental composition of the three towers with transversal connections concealing the mechanics of the system of locks (Zapornice). It is the final agreement, a salute to the Ljubljanica as it leaves the city»[2].

Figure 1_View of the Market from the river (ph. Sergio Camplone)

Nonetheless, Plečnik's grand scheme was never fully completed, and at the end of his lengthy architectural career there were more proposals than built works, due also to his immense generosity in producing updates and variations at any occasion offered to confront the themes of renewing urban spaces. All the same, the powerful sign of renewal received by the city during the thirty years spanning from his return to Ljubljana to his final days remains intact. His work will forever mark this city with a singular and rich production of buildings, public squares, canals, riverbanks and riverside parks in which the Ljubljanica plays a central role as an urban infrastructure and public space. It extends between the buildings of the ancient city centre, which is enriched by a singular form of cultured and hospitable monumentalism.

Unfortunately, during the final decades of the past century, following Slovenia's declaration of independence and opening toward the rest of Europe, Ljubljana suffered a notable disaggregation of its public urban spaces. The river gradually lost the aulic sprit conferred upon it by the master's projects, to the point of conceding its role as the leading figure on the urban stage. It was subordinated to a chaotic system of vehicular traffic that relegated the spaces overlooking its banks to the role of haphazard parking lots.

Beginning in 2006 the city of Ljubljana undertook an ambitious project involving businesses, banks and public companies in the restoration of the centre to its role as the grand catalyst of the city's fascination and economy. The project involved a large investment; the construction of a complex programme of interventions involving many young professional offices from the city, through the organisation of public competitions (more than forty). Projects were linked, primarily, to the urban infrastructure of the River Ljubljanica, from the city centre to its suburbs. The river gradually returned to its role as a guide, within this system, beginning above all with the revisitation of many of the original ideas left on paper by Plečnik. The principal objective was to stem the emptying of the historic centre and improve the quality and attractiveness of its spaces, beginning with the quality of the air (the elimination of vehicular traffic) and the restoration of the public role necessary to daily relations and activities of its residents. At the same time, it must also attract tourists and visitors to admire the beauty of the city's history and monuments.

Figure 2_the Shoemakers' bridge (ph. Sergio Camplone)
Figure 3_the Three bridges (ph. Sergio Camplone)

More than two kilometres of paths overlooking the river were involved in the renewal project, from the intersection with the Gruber Canal to the tall portals of the locks. This new sequence began with the construction of a new pedestrian bridge (2010) at the southern tip of the urban island to connect the Botanical Gardens (the oldest institution in the city) with the new Špica Park, a vast landscaped area that terraces down toward the River Ljubljanica. At this point the left and right banks of the river were renewed and restored in all their original nature, with new paths and areas of rest, illuminated and designed to be used at all hours of the day.

As they gradually approach the centre, the riverbanks assume a more urban character, both in their height above the water and the elevations of the buildings fronting the river. The programme continues with the renovation of the historic Hradecki Bridge (2011) and the renewal of the Krakovo and Breg riverbanks (both from 2010) on the left side of the river. In particular, the redesign of the terraces of the Breg extend as far as the piazza Nova (recently completed, verify the drawing by Plečnik), one of the oldest squares in the city[3]. Further on, other works on the left bank include the redesign of the Hribarjevo nabrežje and Dvorni Square; on the opposite side of the water, on axis with the Cankarjevo nabrežje in correspondence with Ključavničarska ulica, the path leading up to the castle was redesigned. After passing the triple bridge (the city centre par excellence), and remaining on the left bank, at the height of the Petrovškovo nabrežje, a small stepping pavilion suspended above the water offers a privileged view of the castle. Further ahead the new Butchers' Bridge (the same designed by Plečnik to connect to the Stoà of the market) has finally been built, in a refined interpretation by the architect Jurij Kobe[4]. Projects involving the river end almost 500 meters downstream, prior to the locks. Here we find a new Grain Bridge (2010), projecting out over the water with a small quay connected by floating supports.

Today, all of the river's banks are accessible on foot as they run along the river and where they intersect the adjacent urban fabric. The result is a unified public space (the same begun by Plečnik) created through specific individual projects that restores to the historic city centre the indispensable power of attraction required to contrast the effects of its desertion and deterioration. The project defines and in part completes the grand project for the city

Figure 6_The pause of Piazza Nuova along the embankment (ph. Sergio Camplone)

supported by Plečnik following his return to Ljubljana in 1920: what was initially only a visionary suggestion of an ambitious idea gradually became a concrete reality.

The project for the renewal of the Ljubljanica was awarded the 2011 European Council of Spatial Planners Prize and the 2012 European Prize for Urban Public Space. Other than extending the already vast pedestrian centre all the way to the river by creating 4 bridges for pedestrians and cyclists, new quays, paved areas and loggias stepping down toward the river, the project also provides the area with an added value by inserting social and cultural catalysts: reading points, a Library Under the Trees, and the Špica archaeological site. The redesign of the new public spaces of the city centre and its increased urban comfort have once again attracted residents, but also new visitors (and new investors), a new network of streets, parks and squares overlaps a network of bicycle and pedestrian routes that favours the use of all spaces in the city. The new areas along the river expand the dimensions of existing public space and bring the city even closer to the water.

The success triggered by the interventions to renew the River Ljubljanica remain only one episode in a much more ambitious programme pursued by City Government, which imagines a future for the city that moves well beyond the public spaces of the historic centre, focusing attention on the rehabilitation and regulation of new suburban expansions. The City is experimenting with new objectives for the future development of the entire region, in which the city assumes a central role in a sustainable vision extended to Ljubljana 2025. This vision received the 2013 Max Fabiani Prize for Territorial and Urban Planning and, more importantly, the prestigious 2016 European Green Capital Award. This is a unique experience, among the best in Europe in the planning, programming and construction of a clearly organic urban system focused on individual spatial and architectural moments.

There is no project for Ljubljana that has not been conceived in coherence with the urban scale; urban planning is not reduced to the mere organisation of the street system, to the identification of buildable areas and functions, with their assigned spaces and volume ratios. The conviction is that purely functional solutions are insufficient for responding to the problems of urban planning, because the construction of an atmosphere is to be fully considered among the objectives. With this in mind, the relationship with tradition is fundamental: it is an opportunity, without falsifications, for reconnecting the

threads of a continuous link, anticipating solutions and demonstrating how our contemporary era must continue to be nurtured by history. I believe we must once again insert the relevance of Plečnik's lesson and in particular his legacy within this process. It must be linked to his vision of the street, his profound understanding of history and its modifications and the importance of returning the city to those who inhabit it. This legacy restores a founding role to architecture; the role of constructing urban public space, of making the city, as a comprehensive idea of a plan realised by giving form to projects: «... it is the city that imposes its rules, that models spaces, that opens up courtyards to transform them into public squares, that determines that richness dense with memories provoked by architecture and by decoration that resolves the urban centre in a new monument. Filaments of infrastructure, large urban fragments, buildings like cities dialogue between the blocks of Ljubljana, and like the patterns and nodes of a broken network they extend between into its gaps and large voids to build its myth»[5].

[1] A sequence of spaces preceded by a long vestibule that includes the portico-covered market on the street side and two loggias decorated by columns, intended as an introduction to Butchers' Bridge. In Note sulla costruzione del lungofiume. Dalla sistemazione austriaca agli interventi di Plečnik, in Identità urbana e infrastrutture tecniche, «Lotus». n. 59, Electa, Milano, 1988, Damjan Prelovšek writes: «In formal terms it is possible to read almost everything into this project: the Florentine Renaissance, the porticoes of Palladio and his projects for the Rialto Bridge, the portals of the shops in Ostia Antica and Bernini's colonnade in front of St. Peter's Basilica in Rome».

[2] Peter Krečič, The image of Ljubljana by Plečnik, in G. Malacarne and P. Rosso (edited by) Jože Plečnik. The urban space in Ljubljana, catalog of the homonymous exhibition set up at the "Alberto Martini" Picture Gallery of the Municipality of Oderzo, published by the "Alberto Martini" Picture Gallery, Oderzo 1996

[3] These projects are the work of Vesna and Matej Vozlig, who played an important part in the redesign of the riverbanks in the central part of the city. This work unfolded in phases, the first dating back to 1991 (in 1994 they received the Plečnik Medal for the redesign of the banks of the Cankarjevo). They were required to confront the urban structure inherited from the great Master, respecting both its classical structure and interpretation, and the need to convey these ideas into the future.

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[5] Alberto Ferlenga, Jože Plečnik archaeologist of the time, in Alberto Ferlenga and Sergio Polano, Jože Plečnik projects and cities, Electa, Milan 1990.

[04]

El agua como materia de proyecto
In memoriam del profesor Juan Luis Tillo de Leyva
María del Carmen Martínez-Quesada.
PhD Architect
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El agua como materia de proyecto.
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Resumen

La abstracción como medio de interpretación de lo material permite hacer un uso de la materia más consciente e intencionada, y no solamente como se percibe, de una forma ligera y blanda. Bajo esa premisa el agua se puede plantear como un no-material o material complementario, hacedor de grandes vacíos y espejo permanente, donde se reflejan otros elementos, los materiales de la tierra. Dentro de esta abstracción originaria, el pensamiento puede elaborar, mediante la combinación inteligente de las cualidades de estos elementos básicos, infinidad de nuevas materias para el proyecto pero, también, puede depurarlos en un único meta-elemento al que llamaríamos argumento proyectual.

Palabras clave: agua; no material; proyecto arquitectónico; límite; materialidad

Abstract

Abstraction as a means of interpreting the material allows us to use matter more consciously and intentionally, and not only as perceived, in a light and soft way. Under that premise water can be posed as a non-material or complementary material, maker of large voids and permanent mirror, where other elements are reflected, the earth materials. Within this original abstraction, thought can elaborate, through the intelligent combination of the qualities of these basic elements, countless new materials for the project but, also, can purify them into a single goal-element to which we would call projectual argument.

Keywords: water; no material; architectural project; limit; materiality

Planteamiento y estado de la cuestión

"El sol no había nacido todavía. Hubiera sido imposible distinguir el mar del cielo, excepto por los mil pliegues ligeros de las ondas que le hacían semejarse a una tela arrugada. Poco a poco, a medida que una palidez se extendía por el cielo, una franja sombría separó en el horizonte al cielo del mar, y la inmensa tela gris se rayó con grandes líneas que se movían debajo de su superficie, siguiéndose una a otra persiguiéndose en un ritmo sin fin.
Al aproximarse a la orilla, cada una de ellas adquiría forma, se hinchaba y se rompía arrojando sobre la arena un delgado velo de blanca espuma. La ola se detenía para alzarse enseguida nuevamente, suspirando como una criatura dormida cuya respiración va y viene inconscientemente." (Wolf, 2011, p.7)

Frente a los otros elementos, el agua fluye, como nos enseñó Heráclito (*panta rei*), situándonos frente al movimiento como materia de proyecto. La regeneración continua e inevitable de las aguas de un río nos muestra la imagen del tiempo, de todo aquello que trasciende. La regeneración continua es una cualidad de todo lo que vive, una exigencia implícita en el proyecto y en su idea argumental.

La arquitectura frente al mar siempre nos aporta una línea de sombra, una visera bajo la que observar; la sustitución de una mano horizontal colocada sobre nuestra frente. Sólo el profundo alero de una cubierta o un libro sostenido sobre nuestra cabeza con el fin de paliar la fuerte luz (el deslumbramiento) son capaces de confrontar, al mismo tiempo, la sedimentación cultural frente a los misterios presocráticos de la existencia. En la orilla se libra una continua batalla que deja en ambos frentes, tierra y agua, los restos de una contienda. Un fuerte campo energético se genera en todos los límites.

El abismo profundo que se abre entre los cuerpos encuentra una consecuencia 'natural', inmediata, en la ebullición y tensión de vida que se verifica en los límites. Todos hemos visto brotar plantas y animales de todas las uniones; la vida, parece empeñada en crecer, en reproducirse, entre los márgenes. A la precisión (casi matemática) de estos espacios, se corresponde la indeterminaci6n que encontramos en cada cuerpo. El mar en su continua respiración plantea dificultades para la definición de los territorios; al constante movimiento de las olas, que dibujan y borran constantes dibujos en la orilla, se le suman los efectos de la pleamar y bajamar, y los movimientos derivados de las estaciones. Es por ello que en esta estrecha franja de contacto entre mar y tierra existe una constante definición de la forma.

En una conferencia impartida por Peter Smithson en Cádiz en 1997, hablaba de los "empooling" -palabra inventada- como aquellas huellas que dejaba tras su paso la marea alta (el término se tradujo como encharcamientos') y cómo, estos "empooling", permitían pensar en recintos y paisajes discretos, en oposición a las estructuras compositivas genéricas y abstractas de carácter efímero. Con esta reflexión abría la oportunidad a nuevos entendimientos sobre la construcción arquitectónica de ese frágil límite con el mar, donde el agua, el sonido, la luz y la arena, por sí solos o puestos en relación, se convierten en materiales de proyecto con los que poder trabajar por parte de los estudiantes para crear nuevas cualidades: agua especular, agua sonora, espejos negros, "empooling"….

Metodología
Se pretenden analizar mecanismos que permitan utilizar el agua como materia prima, como invariante de la argumentación inicial de un proyecto arquitectónico. Para ello se van a utilizar proyectos realizados por estudiantes, durante un curso académico, relacionados con la construcción del paisaje y su interacción con el agua en dos situaciones diferentes.

El primer grupo de proyectos analizados tenía como objeto el proyecto de un Centro de Investigación Medio Ambiental en la orilla del mar en los restos del Baluarte de Santa Catalina del Puerto de Santa María (Cádiz). A la dificultad de definición de este espacio fronterizo se unía la existencia de elementos

patrimoniales construidos. No existía un lugar concreto de intervención y el planteamiento inicial permitía elegir tanto el lugar de ubicación de este como su forma.

La singularidad del lugar elegido hacía imprescindible el tomar decisiones sobre los niveles de trabajo, la orientación solar, el viento, las mareas... En un espacio natural de estas características: la relación con la línea del mar, posible en todos los puntos cardinales; las miradas y referencias a la cercana África o el inmediato Conjunto Histórico; el cordón de conexión con el núcleo urbano; los espacios nodales interiores;... suponían un cúmulo de sugerencias que, una vez seleccionadas, se convertirían en la materia definitoria del proyecto arquitectónico.

En el segundo grupo de proyectos estudiados el programa consistía en el desarrollo de dos piscinas, zonas de estancia, vestuarios y una cafetería en el entorno donde se encontraba ubicado el ejercicio previo.

Con los ejercicios se pretendía que los estudiantes interpretasen el lugar y la situación en la que se produciría la acción, y todo ello desde un posicionamiento y capacidad de respuesta a la materialidad que puede aportar el agua en la comprensión de la estructura oculta y las tensiones en la topografía existente. Desde esta comprensión del lugar y los materiales que lo construían se pretendía favorecer la conservación del paisaje mediante proyectos que solo necesitasen hacer mínimas intervenciones en el terreno. Las piscinas, de diferente carácter: juegos/natación; adultos/niños..., debían integrarse en la topografía natural del terreno, las mareas podrían llegar a afectar la definición de sus límites llegando incluso a desaparecer. Las piscinas podrían aparecer como parte de jardines acuáticos.

Se podían asociar las posibles propuestas a las construcciones preexistentes tanto naturales (corrales de pesca) como artificiales (restos de muros del antiguo baluarte), valorando su presencia y la importancia de los paisajes del agua para el arraigo a unos escenarios de vida distintos.

Objetivos.

Con los proyectos se pretenden los siguientes objetivos:

_ Investigar sobre estrategias de recuperación del territorio y del paisaje.

_ La adecuación de determinados elementos de los recintos de actuación considerados como bienes patrimoniales, al objeto de propiciar el conocimiento de la historia de la ciudad.
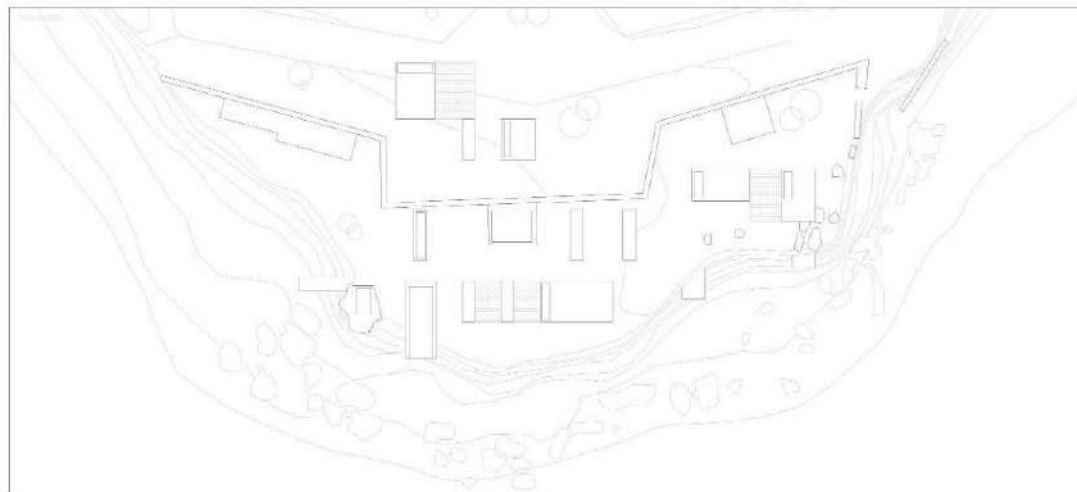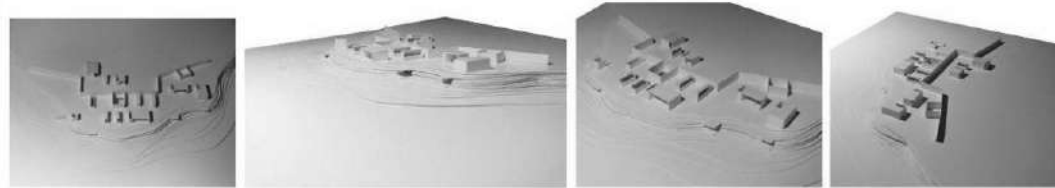
El edificio se incrusta en el terreno mediante volúmenes emergentes que definen un nuevo límite costero, para después abrirse a las condiciones exteriores y así conseguir vistas, iluminación y ventilación en el interior.
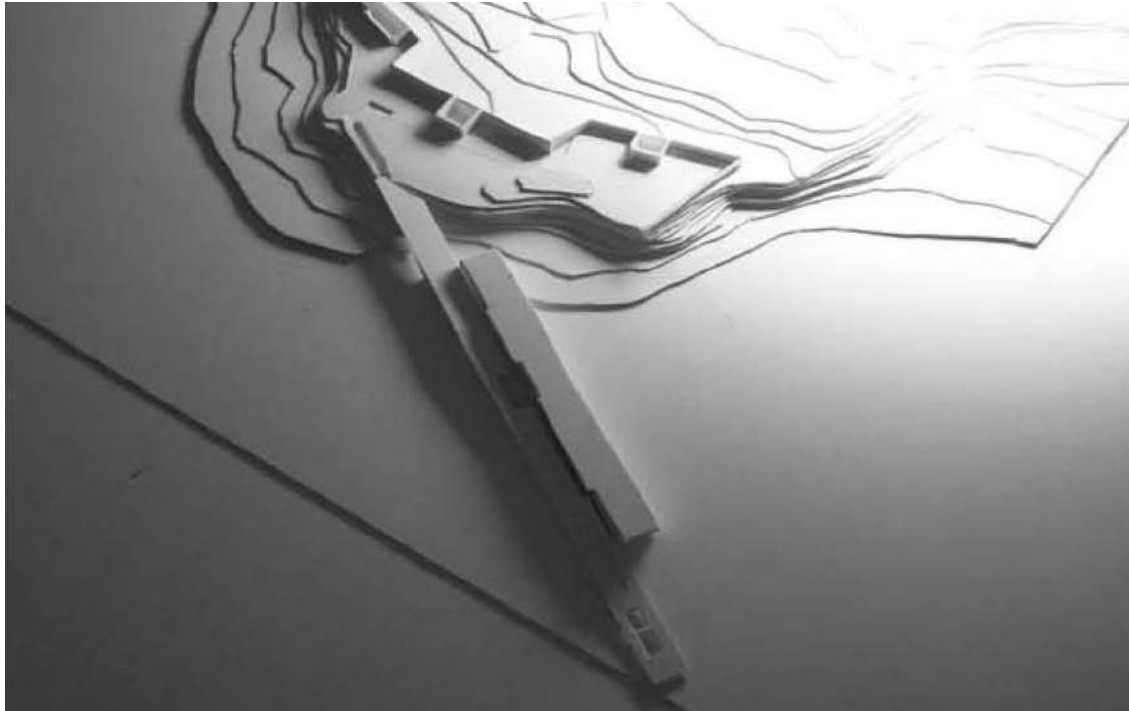
CENTRO DE INVESTIGACIÓN MEDIO AMBIENTAL

Pablo Izaga González
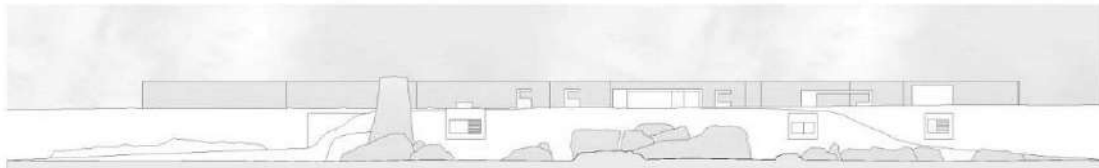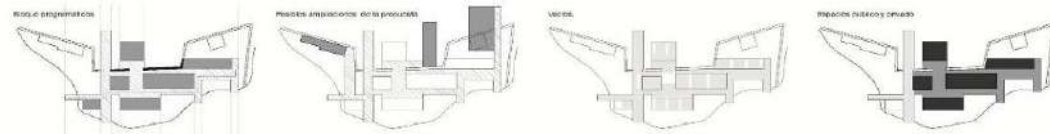
Miriam Gálvez Haro

El edificio reconoce la existencia de los restos de dos límites o barreras físicas: una en el mar y otra en tierra firme, e intenta ponerlas en relación, comunicarse con ellas y crear una armonía. Para ello el proyecto se piensa como la construcción de un recorrido que permite el tránsito entre ambos elementos sobrevolando la zona de la playa, para terminar introduciéndose en el mar por el que queda abrazado.
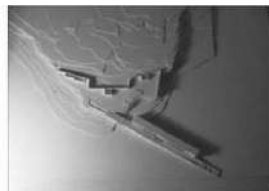
INSTALACIONES PARA EL BAÑO
Paula Ferrer Martin de la Hinojosa
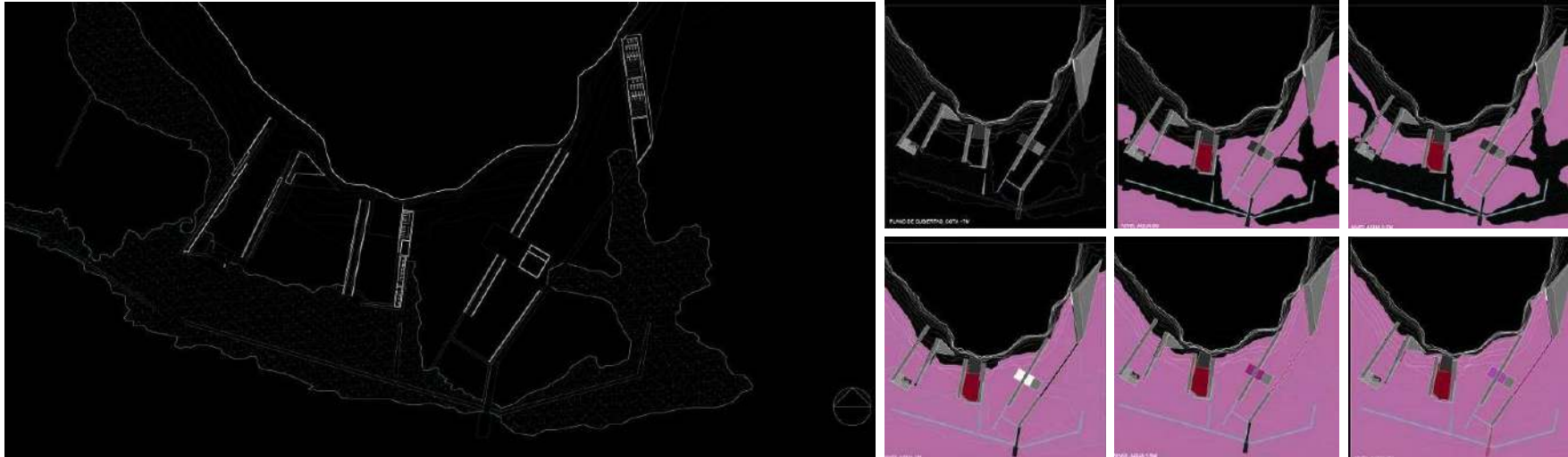
La disposición de unas estructuras, que se insertan como elementos grapa entre el mar y la costa, asociadas a la construcción de una sección, permite medir el cambio de nivel producido por las distintas mareas y definir diferentes límites de la costa construidos por el tiempo. Se crean miradores a doble altura sobre los restos de los corrales de pesca, aprovechando los elementos preexistentes.

Jerónimo Gardón, Daniel Campoy, Eloy Cantero, Jesús Cruz

La construcción de diferentes niveles en los que disponer las piscinas y los paseos entre láminas de agua, junto al efecto de las dinámicas variaciones de las mareas, permite mostrar y ocultar espacios a la vez que crear distintos tonos de agua en un mar controlado y delimitado, según las diferentes alturas de estos.
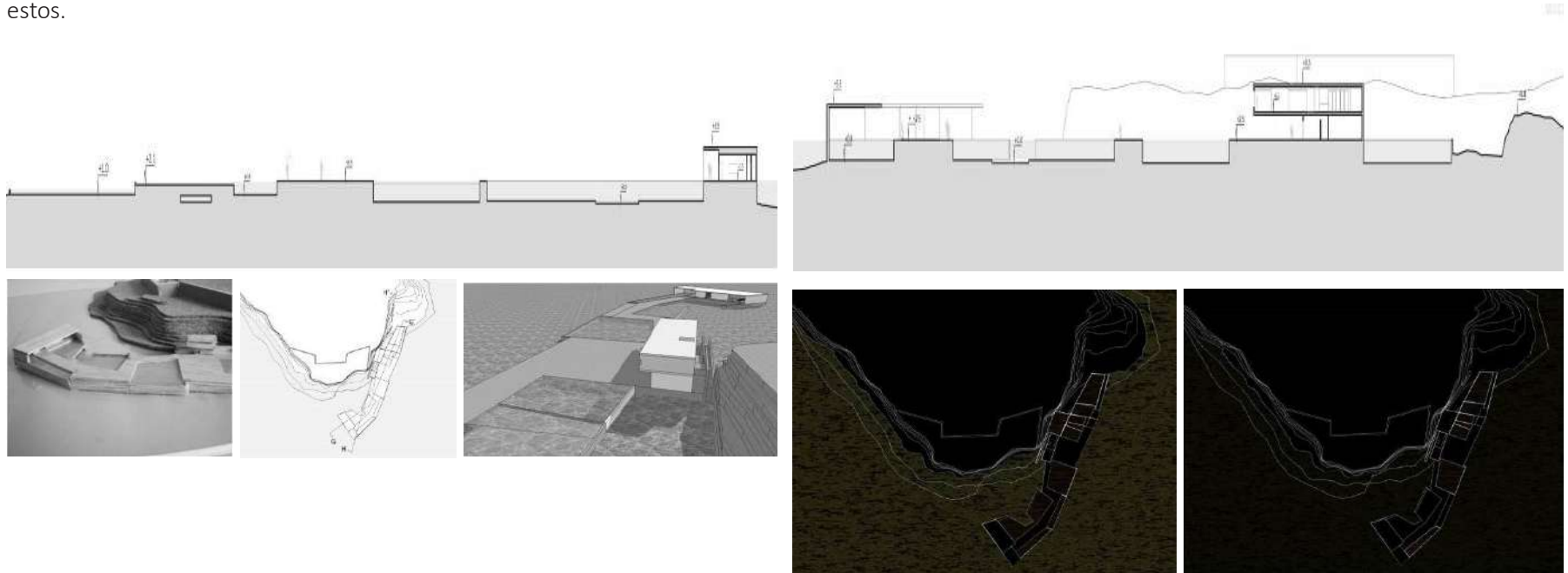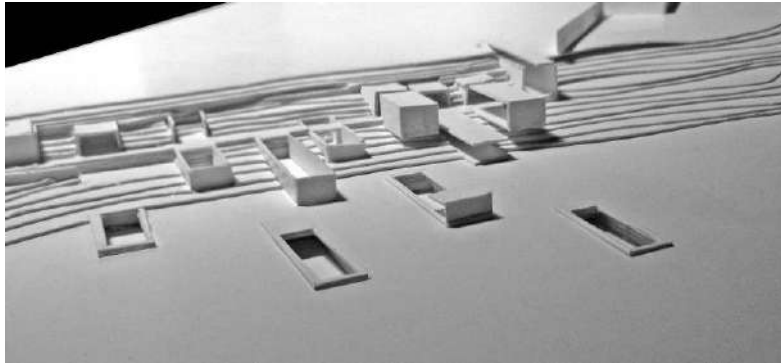
Alberto Carrión, Fernando García, Pablo Izaga, Fernando Royo

Al igual que no es posible dibujar la línea que separa el agua de la tierra, la intervención se origina a partir de un módulo que se desplaza de un lado hacia otro, y, en algunas ocasiones, se introduce en el mar desdibujando el límite entre el espacio urbano del espacio natural. Así, se crean lugares a distintas alturas que pueden quedar cubiertos por el agua.
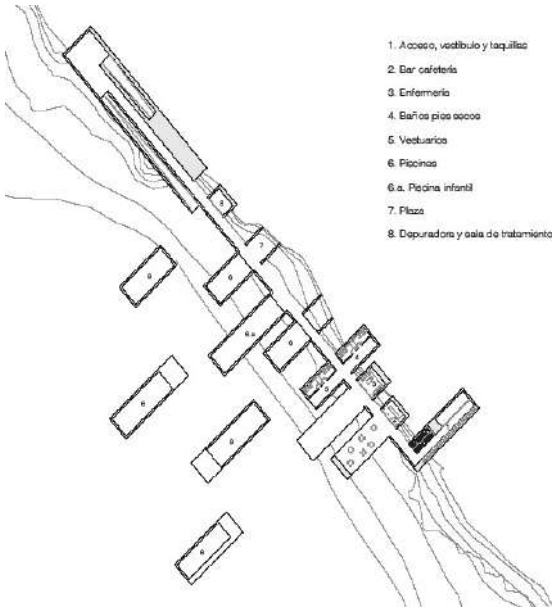
1. Acceso, vestíbulo y taquillas
2. Bar cafetería
3. Enfermería
4. Baños pies secos
5. Vestuarios
6. Piscinas
6.a. Piscina infantil
7. Plaza
8. Depuradora y sala de tratamiento
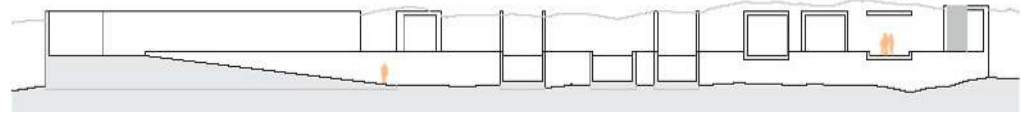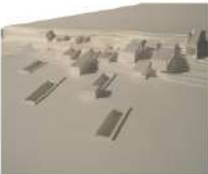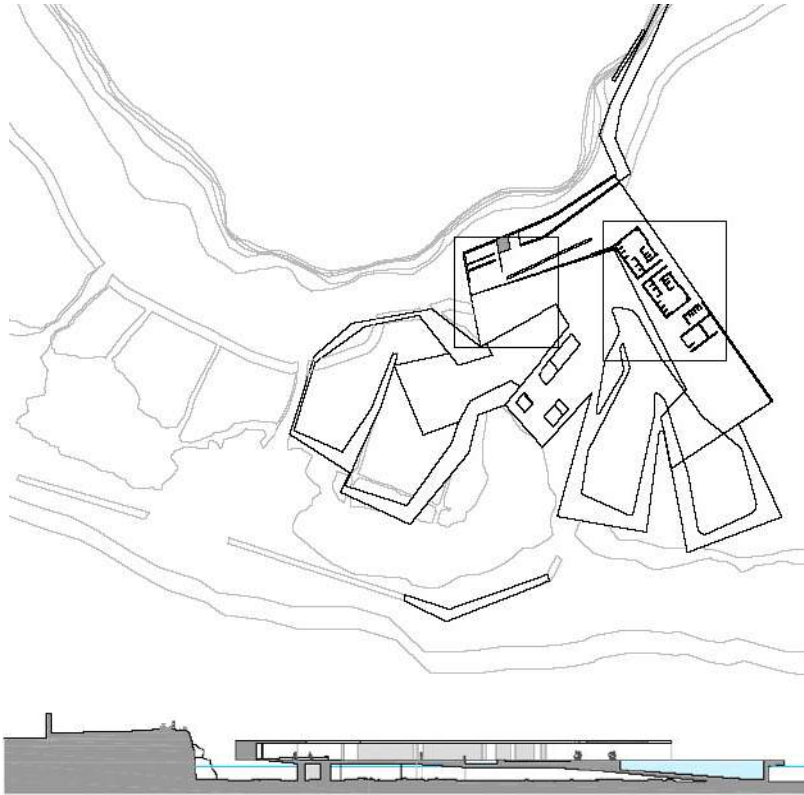
Adrián Martínez, Sandra Luque, Carlos Muñoz, Vicente Jiménez

El proyecto persigue una constante re-escritura del territorio en su contacto con el agua, superponiendo capas de distinto peso construido en las que nuevamente el nivel del mar vuelve a configurar lugares y a hacer desapareces otros, y todo ello en dialogo con las runias preexistentes.
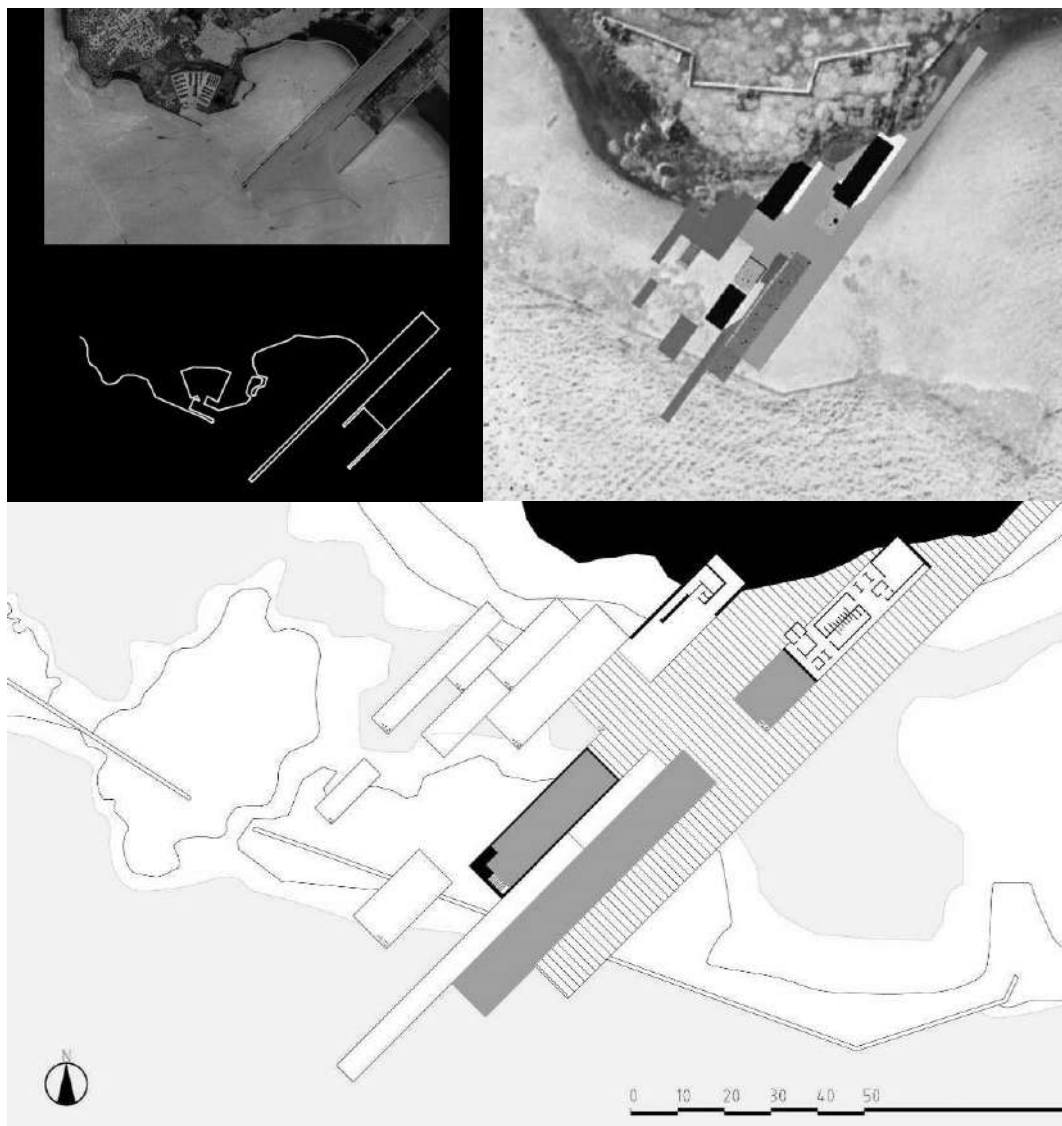
Ángel Pontes, Gabriel Rodríguez, Juan Bautista Rubio, Manuel A. Salado

Se pretende realizar una relectura del lugar mediante la repetición de estructuras longitudinales de anchuras variables, basadas en las escolleras de entrada al canal del puerto, que geometrizan el paisaje. Los volúmenes aparecen como pliegues abiertos sobre el paisaje según la orientación deseada, y crean recorridos entre los distintos usos que terminan fugando sobre el mar y el horizonte. Además se sitúan a diferentes cotas para desdibujar, según el estado de la marea, el límite de un espacio público situado en una plataforma que utiliza el proyecto como elemento soporte de todo.

Conclusiones

Todos los proyectos son respuestas concisas a las exigencias del lugar, como recintos acotados y no como objetos impuestos al paisaje y siempre desde los planteamientos propios de cada trabajo.
Se crean estrategias de transformación urbana que convierten territorios ausentes de la ciudad, desconocidos, en espacios vivos.
Se generan mecanismos de recuperación del territorio y del paisaje.

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Parte de los textos están extraídos del libro "Memoria gráfica del curso 1997/1998", Aula Taller-B. Universidad de Sevilla. ISBN: 84-600-9520-7
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[05]

Italian Adriatic City. A seaside landscape.
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The invention of seaside
In 1790 the chronicles record with astonishment the case of an Irish lady who stayed in Rimini for fifteen days to bath in the waters of the Adriatic sea.
The invention of sea bathing took place between the eighteenth and nineteenth centuries, before then the sea was scary, it was a world in which only sailors and fishermen ventured out of necessity.
Starting from the mid-18th century the terrifying nature of the sea was not so much denied as it was reinterpreted in therapeutic terms. In fact, it begins to be seen - in England before that elsewhere - as beneficial for the health of a noble class weakened in physical and in spirit: "The sea becomes salvation, it nourishes hope because it inspires fear. The maritime holiday strategy will insist on being able to enjoy the sea, face the terror it inspires and at the same time disarm its dangers" (Corbin, 1990, p. 91). The cold bath in marine waters is therefore interpreted and prescribed by English

Figure 1_Ostenda – Bathing machines on the beach during the high tide

Figure 2_Ostenda - Bathing machines during the low tide

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doctors of the second half of the eighteenth century as a "corroborating remedy" for a high society afflicted by a spleen ante litteram, which makes it appear weak and helpless compared to the working classes that instead possess that "vigor" determined by the "hardness of work" (ibidem).
On the Adriatic coast, the first city to build sea bathing equipment was Rimini, directed by doctors since in the nineteenth century the treatments that were done in a bathing establishment were still linked to health therapy through immersion in the waters of the sea.
The bathing facilities were built directly in the water, close to the shoreline and its architectural image was inspired by the circus tents and Chinese pagodas. This stylistic choice underlines an important fact, namely the sensation of exoticism and sensationalism that a construction on water generates.
Before that, around 1735 the first bathing machine was tested in England. It was a wooden cabin equipped with wheels that allowed the transport directly into the sea, which was accessed via a small ladder. The bathing machines entered the water according to different paths depending on the sex, in order to ensure the privacy of female users (Inzulli, 2009, p. 29). In the North Sea the cabins first stationed on the beach, then entered the water according to the tides, creating an ever-changing landscape (Fig. 1 and 2).
In Venice, doctor Tommaso Rima experimented the transformation of a gondola into a so-called "Siren". Sheltered by a curtain, the siren offered the possibility of bathing away from curios eyes, at the same time having a natural hydromassage effect due to the movement of the boat in the canals.
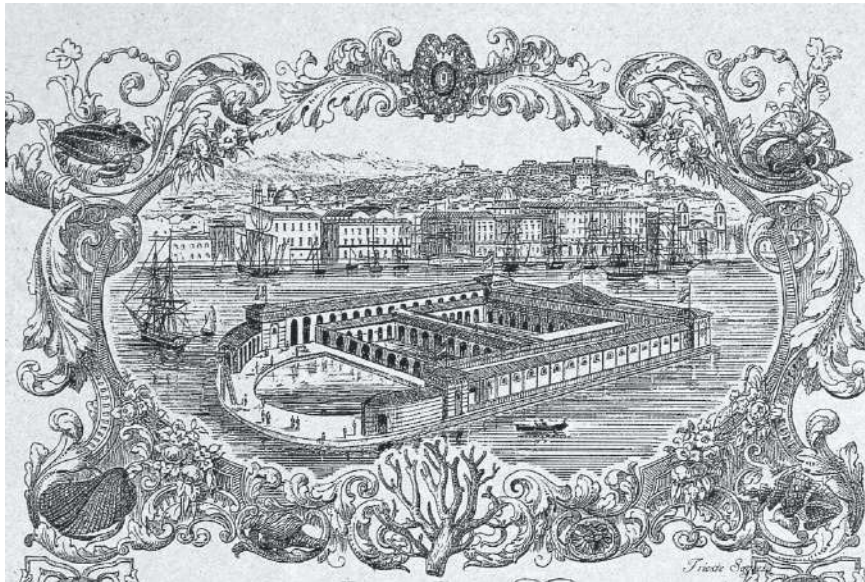
Figure 3_Bagno Maria – The floating bath house

Floating bathhouses, marine architecture and development of tourism cities along the Adriatic

In 1823 the first floating bath house on the Adriatic Sea was built in Trieste, on a wooden raft supported by many barrels and crates, well anchored to the bottom of the sea with cables connected to two anchors to resist the force of the winds and waves, a configuration that will later be adopted by all bathhouses. The success of the Soglio di Nettuno, together with the general economic development, led to the construction of a new floating bathing establishment, the "Bagno Maria", designed to be the most elegant, welcoming and equipped in the city (Fig. 3).
The building could accommodate two hundred people, mainly clients of the luxurious Hotel "De la Ville", on the benches and its large (50m x 26m) made it possible to offer game rooms in addition to the spaces intended for the immersion. The floor plan, inspired by classical architecture, with Doric columns, reveals a gallery protected by a railing that runs along the side and

the large rear pool reserved for "expert" swimmers. The SPA was active until 1911, when it was destroyed by a storm.

Figure 4_Brighton West pier

But in the nineteenth century another form of marine architecture was established in England: the pleasure piers. In the beginning they were infrastructures for the mooring of sailing ships of tourists that, until the advent of the railway, arrived by sea (Farina, 2001, p. 21). Very famous is that of Brighton, 3ooo meters long, "gradually equipped with paths for walks, souvenir shops, pavilions for concerts, winter gardens, theaters and game rooms, and were promptly illuminated when electricity arrived, defining a model destined to spread [...] on all the English, French, Belgian and Dutch coasts" (Farina, ibidem). The docks then became complex entertainment venues, with ornate pavilions, refined iron works and exotic lighting (Fig. 4). Their enormous success was linked to the possibility that they offered to cross the limit of the seafront and experience the danger of the sea while remaining safe above the waves. The idea soon spread throughout Europe, first in the coastal cities of the north and then, gradually, also in mediterranean cities.

On the Adriatic Sea, in Lignano Sabbiadoro, the long walk on the water that leads to the bar "La Pagoda", an octagonal platform in the middle of the sea, became the very symbol of the city's seaside tourism, offering a breathtaking view of the entire beach.

The progressive success of seaside tourism, still elitist, leads to a first phase (late nineteenth / early twentieth century) of exploitation of the sea, with the construction of hotels and holiday homes. The sea is still considered a place of health, the healthy virtues of the air and the sun were strongly propagated by medicine as a cure for a large part of the Italian population who at the time was malnourished, suffering from rickets, and other diseases that affected especially children.

In Italy the marine colonies began to flourish, which then exploded above all with fascism which, as is known, cultivated a real cult of the body and health. With the colonies, architects also began to develop an architectural language inspired above all by nautical design and appropriate to the marine context. Under the fascism, and even earlier, in the paintings of the Futurists and in the rhapsodic prose of Gabriele D'Annunzio - Italy was able to develop a language that exalted the mechanical brutality of the modern age.

Unlike other totalitarian regimes, which suppressed Modernism in favor of neoclassicism or the vernacular (think in Germany of the rejection of the modern architecture and the closure of the Bauhaus) in Italy, rationalist architecture was able to affirm itself, even if there was no lack of supporters of the return to classical architecture, like the well known roman architect Marcello Piacentini.

Following the success of the heliotherapy colonies, public baths will soon be built on the city beaches, equipped with cabins, umbrellas and restaurants. The culture of the promenades also developed and the cities began to equip the promenades along the coast line, making the seaside resorts more attractive for tourism. Thus three phases of seaside tourism follow one another: that of sea bathing for the elite, which goes from the nineteenth century to the early twentieth century; health care, which was established in the early twentieth century; that of mass tourism which from the seventies onwards particularly characterizes the Adriatic coast.

The model of mass tourism on the Adriatic coast, also following the economic and construction boom, is embodied by the construction of a series of residential skyscrapers, especially on the Romagna coast, with several cases, however, also in the Marche region, and also by the construction of tourist villages. The tourist success also contributes to the development of coastal settlement centers that typically arise as duplicates of the hilly centers of origin. This process contributes to the transformation and degradation of the identity of national coastal landscapes, including the Adriatic one, which, as mentioned, is particularly affected by the phenomenon of mass seaside tourism.

During the boom of mass tourism a very unique story is that of the "Island of Roses". Born in Rimini, in Emilia Romagna, the Island of Roses was the name of a 400 m² artificial platform that was located on the Adriatic Sea, 11,612 meters from the coast, between Rimini and Bellaria-Igea Marina, 500 meters off of the Italian territorial waters. Conceived and designed by engineer Giorgio Rosa in 1958 and completed in 1967, on 1st May 1968 it declared itself an independent state, although in reality it could be considered more of a micronation. Although it gave itself an official language (Esperanto), a government, a currency, and a postage stamp, it was never formally recognized by any country in the world as an independent nation. It was built on the mainland as a steel tube structure, to be transported by sea to the chosen point (outside the Italian territorial waters) and anchored to the seabed. On November 23, 1966, the Rimini Port Authority ordered the works (without authorization) to cease, since the area was under concession to the Eni oil company. Occupied by Italian police forces on June 26, 1968 and subject to naval blockade, it was demolished in February 1969. The episode was slowly forgotten, considered for decades only as an attempt to "urbanize" the sea for commercial advantage.

With this enterprise the fear of the sea is finally overcome.

The Adriatic identity

In the Italian national geographic vision, the coast undoubtedly represents one of the founding features of the country's identity. The same prevailing sense of the peninsula is linked to the landscape identity of its coastal profiles. The Adriatic one undoubtedly presents strong elements of recognition. The coastline, formed by delta deposits of the alluvial and coastal plains alternating with the sequence of the river valleys, gives rise to the "Adriatic comb" (described several times by territorial and geographical studies of the past decades). This geographic character is matched by the settlement system, followed by the spread of urbanization along the coastal strip and by the valley penetrations that overlook it regularly. The linear coastal urban system, distributed with densities and rarefactions along the lines of the railway and the state road, constitutes the second macro-character of the Middle-Adriatic landscape. The settlement structure presents, in fact, clearly recognizable elements, such as the settlement morphologies and the equipment and services for tourism and residence (Fig. 5). Along the extensive sea front, the urbanization density is very intense, rhythmically presenting large residual open spaces, in which we find pieces of the countryside, campsites, pine forests, evidence of the uses of the past. The

Figure 5_Urban fabrics of Adriatic Cities

urbanization process that has characterized the development of the last fifty years has redesigned the coastal landscape, imprinting the urban characteristics on the rural and naturalistic ones and erasing the original features of the Adriatic landscape. A further feature of great importance is represented by the hilly systems, very advanced on the coastal front and close to the sea (with the due differences along the Middle Adriatic arc), which present the production of oil and wine on the slopes exposed to the sea, with surfaces covered for very significant DOP & DOC productions. Together with agriculture, the settlement system of the hilly ridges distributed around an altitude of two hundred and three hundred meters has a particular significance. These constituted the pre-existing settlement system to the coastal development, which took place following the major reclamation operations of the coastal plains and the introduction of the Adriatic railway, as well as the consolidation and completion of the SS16 Adriatic road itself. Therefore, in the Adriatic landscape the dominant identity is mainly linked to the settlements, the dense network of connections and the predominantly anthropic uses of the soil, including agriculture, which characterize the hilly slopes in particular. Within the territory considered, the contexts present different geo-morphological matrices: the first approximation is "coastal landscapes", "river landscapes" and "hilly landscapes". The coastal landscapes present a greater degree of urbanization and the dominant figure of the landscape is that of the coastal linear city that ideally continues endlessly from Emilia Romagna region. The traits that retain characteristics of residual naturalness (assuming that by nature a sort of "second nature" is meant, conceived and imposed by man, as in the case of maritime pine forests) are minimal and subject to continuous pressures by the built. The coastal landscapes that have the greatest naturalistic importance are those that affect the southernmost stretches of the peninsula. As already mentioned, the hilly landscapes carry very significant characteristics of the identity of the Adriatic landscape. For the hills, especially in the last decade, there has been an attack by building interests and productive activities and land exploitation that are altering the landscape qualities handed down over time, without introducing new ones. For them, however, the prevailing identity is still that inherited from the historical processes of landscape conformation, both in relation to the system of hill towns and in relation to agricultural activities. Compared to coastal landscapes and river landscapes, hilly landscapes are the landscapes that present a greater degree of integrity, where by integrity we mean a condition of the heritage that takes into account the level of completeness of the transformations undergone over time; the clarity of historical-landscape relations; the legibility of the systems of permanence and the degree of conservation of the specific assets. The historical-cultural characteristics in the hilly landscapes, with varying degrees, are largely connected to the historical and artistic heritage, represented by the centers and villages along the ridge. In this part of the Adriatic territory there are many historical centers whose artistic-cultural values are among the fundamental values for the Adriatic identity itself. The hilly area also expresses other important values, in particular those of agriculture and quality crops which in recent years have profoundly affected the perception of the Adriatic identity. The coastal hills are in fact home to the most important productions of quality oil and wine, with a significant area invested for the production of DOC wines and DOP oil. River landscapes are landscapes characterized by the morphological structure of the river courses and / or by the settlement structure that has tumultuously developed on some of them over the last few decades and which now constitutes the main landscape "connotation" of these territories. They are landscapes with modern features, in which the tension towards innovation is felt with greater intensity and in which the conflict between forms inherited from the past and forms of contemporaneity sometimes produces alienating effects. The Pescara valley, for example, presents a settlement continuum that blends historical settlements with more recent fabrics, in a manner dictated by the opportunity and the

particularity of contingent situations. The uses and activities are mainly residential and industrial, distributed over an agricultural matrix in which irrigated arable land prevails.

The coastal urbanization
The intense urbanization of the coast and the valleys, the downstream expansion of the old hill towns, the new urban dimension generated by the attractive capacity of the coastal strip and of the highly centralized nuclei, are the processes that have unfolded since the 1960s, generating changes still in progress and not easy to interpret. The main cities have progressively saturated the free spaces by welding one with the other, giving life to the so-called "infinite city" on the coast, extending along much of the Adriatic coast; in the same way, the main valley branches have been progressively occupied by productive settlements, the hill towns have intensified that process of "rolling" downstream, which began in the centers near the railway yards according to what Farinelli defined as a "sort of topographical schism". The dimensions of the phenomena mentioned above have been described by the research "IT. URB. 80. Report on the state of urbanization in Italy".
In the period of observation considered by the research, the intense urbanization process of the coasts emerged clearly; in Abruzzo, for example, "the growth of urban areas has had particularly intense trends towards the coastal strip and the lowland centers: in 1951 26% of the regional population was settled in the valley areas, in 1981 this percentage increased to over 38%. The population of the centers with more than 20 thousand inhabitants goes from 25% in '51 to 42% in 1981".
Already begun in the 1960s, the intense progression of the population of coastal centers had determined the concentration of urban growth along the coast and the formation of the first lines of development towards the interior, along the main valleys. These, already sufficiently infrastructured, first collect the natural outlet of the tumultuous growth that has affected the coast and, later, are ready to welcome the "metropolitan" development that has affected many centers of the Adriatic coast.

These processes concerned the coast in an incremental manner: the building densification processes of the strip at the foot of the coastal hills, which began in the 1960s, were subsequently added to the upgrading of tourism equipment. In analogy with the Emilian model, spaces for recreation such as "water parks" have been created near the coast; bathing facilities have multiplied, often reducing the visibility of the sea; the waterfront open spaces have been redesigned almost everywhere, with new equipment to support free time; finally, the strengthening and reorganization of the non-hotel accommodation offer (campsites, residences, holiday centers) was promoted.
An interpretation of the Adriatic territory, in a territorialist key, is that carried out during the research "ITATEN. Shapes of the Italian territory". Through the extensive survey of urbanization on the basis of the then latest ISTAT census, the research attempted to synthetically capture some dominant forms of the Italian territory in the early nineties. On the background of Italy at the 1:1,000,000 scale, it appeared as the process of urban sprawl, already reported by previous research, had now extended to a large part of the peninsula. With this impressive "molecularization" of the territory, densities with clearly distinguishable morphologies emerged, both for their nature and for their extension in space. Among others, the mid-Adriatic coastal line, described as an extensive settlement comb for the spread of urbanization along the coastal strip and along the valley penetrations that overlook it regularly, assumed importance in the ITATEN research. The research underlined how the overall distribution of the urbanized area in these regions with the greatest housing density was strongly influenced by the great signs of nature, which contributed significantly to articulating the overall structure

into territorial bodies with distinct morphological characteristics. An Italy made up of micro-regions in a permanent state of mutual interaction, which fragments the large urban regions drawn by nature and history. An image of the Italian territory took shape from the research, fragmented into scenes with uncertain and superimposed contours, which in their overall assembly evoke the condensation of the lines of force that cross it and which are
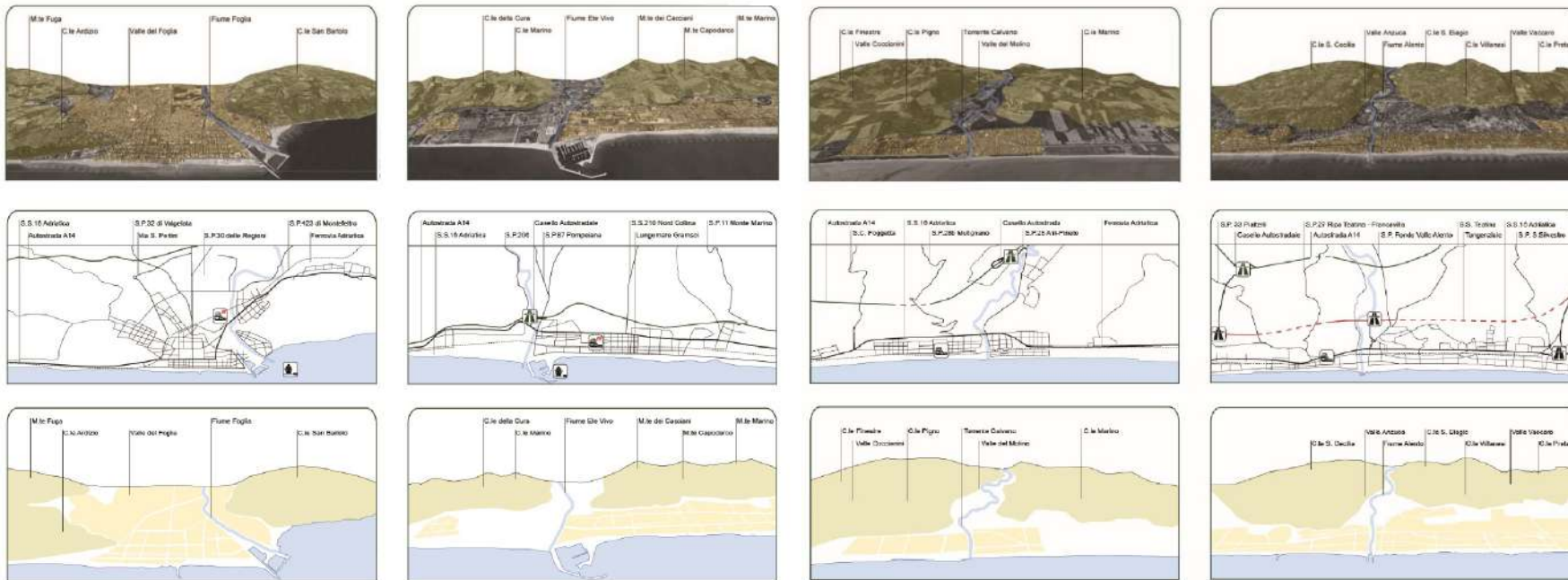

Figure 6_Environmental morphologies and settlement

Figure 7_The concept

catalyzed in the places of greatest dynamism, called territorial bodies: la regione del Po; la Dorsale Adriatica; l'Arco latino ligure; l'area romana; l'area napoletana.

In particular, the territorial body of the "Adriatic ridge" was described as follows: "*the conurbation that descends along the mid-Adriatic coast, from Rimini to Termoli, appears decidedly modeled by nature. Here the linear configuration determined by the dense succession of centers tends to fray frequently in widespread urbanization where the narrow coastal strip opens to the rhythmic sequence of pre-Apennine river valleys, generating a characteristic comb structure that extends for almost three hundred kilometers*".

Specific characters of the Adriatic landscape

An interpretation of the Adriatic landscapes emerges which tends to highlight some recurring and specific characters. In other words, the question arose whether and how recognizable a specific identity of the Adriatic landscape was capable of representing a background value to which the planning and design of new interventions could be referred. An answer to this question comes from the observation made on a sample of Adriatic cities (Civitanova Marche, Senigallia, Alba Adriatica, Pescara, Francavilla, San Salvo) distributed along the middle coast of the Adriatic (Fig. 6). The analysis activity on the urban fabric samples highlighted the settlement structure in relation to the morphological-environmental characteristics, showing a gradient of combinations between settlement and environmental morphologies included in a fairly limited series, in which the role of the infrastructural frame and of the environmental matrix is evident and characterizing. The relationship between the railway line and the urban fabric is recognized as a recurring feature, and in particular the relationship between the railway station and places of urban centrality, with recurrence of urban avenues oriented towards the sea. Furthermore the morphological system, which places the coastal hills and river valleys in rhythmic alternation, with the exception of Ancona, which with the Conero promontory changes the orientation of the coast (from NW-SE to NNO-SSE) and proposes a different configuration of the coast; the hilly slopes overlooking the sea that show the valuable agricultural crops; the mouths of rivers, equipped with ports; the "waterfront" and more generally the waterfront system, to be considered as the main public spaces of coastal cities; the urbanized filaments with prevalent commercial and artisanal activities that accompany the main communication routes along the coast and along the valley penetrations.

The prevailing image is that of a territory with multiple, layered and coexisting identities, which simultaneously refer to the early settlement stage and contemporary phases (Fig. 7). A territory in which historical connotations coexist side by side with the most disruptive characteristics of modernity; in which the space of industrial production overlaps that of free time; in which the flows of economic relations materialize rapidly in infrastructures and logistics systems. A territory that preserves the individual identities of each of the "hundred cities" of which it is composed but which continuously mixes them up in a multi-faceted unicum. The urban dimension of the super-city with variable thickness prevails, an uninterrupted ribbon for hundreds of kilometers of multiple settlement structures welded by the common longitudinal infrastructural frame, polarized in correspondence with the transversal valleys of the hinterland, with relationships that now also project towards the Balkan shore, giving body to an embryonic Euro-Adriatic region that begins to dominate the individual local or national dynamics.

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[06]

CIDADE DO ACOLHIMENTO_HOST CITY: a proposal for a line of research in architecture
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ISMAT's Integrated Master's Degree in Architecture brings together two of the main activities to which the higher education institution is dedicated - teaching and research.

With regard to research, understood as an active part in the construction of the collection that nourishes teaching activity, it was found that it would be opportune to group the heterogeneity of subjects currently under study under the structure of a formal line of research. In fact, practically the entire ISMAT architecture faculty maintains a research practice, commonly derived from their academic doctoral studies - regardless of whether they have already been completed or are still ongoing - whose development and derivations are objectives pursued by everyone. This unique production, in itself, constitutes a source from which the rich research material can/should be collected, an action in which both parties benefit: the school, from the outset, by guaranteeing the cataloguing, conservation and availability of knowledge, simultaneously carrying out its primary vocation and spreading its action beyond the walls that surround it; and the teachers/researchers themselves who, in the absence of an internal research center, benefit from an operational platform and, it is hoped, institutional support dedicated to the dissemination of their academic work, the ultimate aim of their action.

The institution of a defined line of research does not intend to narrow the range of subjects under study, or in any way to organize all MIA.ISMAT teachers/researchers under a single banner, but rather to propose a common place for those who find the strength useful of the plural and the opportunity for team effort.

Faithful to the idea that the greatest journey begins with one step, the collective of ISMAT architecture teachers/researchers set out to establish a first line of research, a delimitation of the study area within a given reality, that of the place and the of the problems that we face on a sustained basis and that, in some way, simultaneously illustrates, also symbolically, the school that we form. This line of investigation was called Cidade do Acolhimento_Host City.

Portimão, a riverside port city and the territory where it is located, initially constituted itself as a paradigm of the host city; its location at the southern end of the peninsula that limits and extends Europe's connection with the Atlantic, a strategic point as well, ends up dominating the gateway to the Mediterranean, the place from which its cultural base emanates. Portimão was assumed to be the initial case study of the inquiry even before the addition of other, comparable examples of conurbations where, due to its position on the threshold between land and sea and between Europe and the

rest of the world, we witness the confrontation between what is crystallized and is generally understood as being the morphology and identity of the site, and the unavoidable change in response to the pressures, negative and positive, that its location determines - namely the buoyancy of its demography, contrasting with the slow speed at which it historically processes the urban metamorphosis of the place.

As the demographic and migratory issue is a structuring issue in the world we live in, Cidade do Acolhimento_Host City has to compromise simultaneously with phenomena - these, yes, considerably accelerated - derived from the unavoidable climate change that is developing across the globe, where a specific condition imposes itself as a factor of risk for inhabited territories along the sea coasts: the predictable rise in sea levels; a finding that obviously exponentially increases the importance - and urgency - of the research.

Cidade do Acolhimento_Host City, now without explicit mention of Portimão, emerges from different factors that range from geographical position to the recognition of the theme that has come to dominate a substantial part of the scientific production of the actors present - teachers and students - under the in the form of texts and various productions, and of the workshops that set the rhythm of academic semesters in recent years, or of the different presentations given by lecturers, guests and domestics.

The next step therefore consisted of extending the investigation to other comparable cases, other cities and other places, in order to aggregate more data and test the universality of the conclusions as they were being formed.

Today, a large number of port cities in Southern Europe, mostly located in estuary areas, are experiencing an exponential increase in the movement of people, migrants (not all refugees, not all tourists) who sometimes cross these urban areas and sometimes settle in them. or in its areas of influence.

This is a global issue, which takes on a particular scale along the northern arc of the Mediterranean - Algarve included - and a clear consequence of its relationship with poor and rich, the former being understood as those originating from Africa and the Middle East and the second, those arriving from wealthy Western nations in the Northern Hemisphere. Knowledge about these phenomena and, no less important, the formalization of architectural responses, more or less utopian, certainly plausible, thus constitutes the mission of the line of research.

The Cidade do Acolhimento_Host City research line brings together the work of teachers/researchers from MIA.ISMAT - who, for this purpose, can occasionally join their counterparts from the different courses present at the Instituto Superior and other national higher education institutions and international. Cidade do Acolhimento will also inform and support the research work of candidates for the Integrated Masters in Architecture who find a place as active members in research teams directly linked to the topic.

The work already carried out includes the aforementioned series of six workshops - three international - and an important number of conferences, classes and presentations directly and indirectly dedicated to the topic.

The implementation of an ERASMUS+ Program - BIP Blended Intensive Program - where ISMAT hosted in Portimão two teams of teachers and researchers (master's and doctoral students), from the Seville and Pescara schools, proved to be a particularly important occasion, not only because of scale and scope of the event, as well as because it was the first moment where the existence and program of the Cidade do Acolhimento line of research was formally referred to/tested. The acceptance and willingness to integrate the research under the terms proposed by the Portimão school demonstrated the validity and opportunity of the investigative proposal. This fruitful meeting, where a working hypothesis in the context of floating urbanity was discussed, resulted in a book of minutes, a summary of the articles written by the tutors and doctoral students who attended the event, which is in print. At the same time, the importance of continuing the work started in Portimão was agreed, and the implementation of a second ERASMUS+ Program - BIP Blended Intensive Program dedicated to the topic, to take place in Italy, coordinated by the Pescara school, was also approved during the year. 2023. The Seville school, for its part, is making efforts to host the third edition in that Andalusian city during the 2023-24 academic year.

The universality of the theme was also proven by the inclusion of MIA.ISMAT in the AGORA platform, which brings together a significant number of architecture schools from the Mediterranean - North, South and East - where the work developed on the riverside city finds echo and space, a reality that bears fruit through excellent, active relationships with European, North African and Middle Eastern schools, such as the German University of Cairo or the Alanya School, in Turkey.

Finally, a point of pride for those who are deeply involved in this process: at this moment two architecture students have developed integrated master's dissertations configuring subjects that respond to specific questions identified from the transformation and adaptation issues that riverside urban areas currently face. The Cidade do Acolhimento_Host City line of research has become a multigenerational fact and appears to have reached a stable cruising pace, contributing productively to the full realization of the academic vocation of the architecture course at the Instituto Superior Manuel Teixeira Gomes, in Portimão.

[07]
Learning from Venice
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Reports of tidal rise readings and future forecasts create an important question for the current generation of planners and place them in the need to choose whether and what to save from water erosion.

> *In front of that mouth which is called, as you say, Pillars of Heracles, there was an island. Moreover, this island was larger than Libya and Asia combined, and those who proceeded from it were offered passage to the other islands, and from the islands to the whole continent which was on the opposite side, around what is really sea. [...] In later times, however, having occurred terrible earthquakes and floods, in the course of a day and a night, the whole complex of your warriors suddenly sank underground, and the Isle of Atlantis, likewise submerged from the sea, disappeared. (Platone, 360 a.C.)*

The myth of Atlantis, from well before the foundation of many of our cities, teaches us how the force of nature is capable of erasing built-up portions, sweeping away roads, buildings, civilizations. In this catastrophic scenario that awaits us, can man listen to the signals that nature sends? Can he try to collaborate with it rather than fight a battle that history teaches us to be unequal?
From these questions arise important reflections on the means and ways in which man can act.
Several glorious societies have founded their history on water and on the indissoluble bond with it but, of all of them, Venice is not only the most emblematic case but perhaps the only source of answers for survival. Since its inception, in fact, the "Republica Marinara" has had to deal with the sea that generated it but the relationship it has with water is very different from that of other cities. If we take Dubai for example, just to cite the most representative case, a substantial difference between the two emerges: on the one hand we have a city born on (and from) the sea, on the other a metropolis that extends from the mainland beyond the dividing line of the coast to widen its borders. In the middle of these two very different societies there is most of the cities that are born on the coasts, a long list of historic centers that embrace ancient seaports and that develop over time on the surrounding territories or hills and which today, alarmed by the 'rising seas, wonder about the future of the founding nucleus.
But if on the one hand it is true that the ancient heritage is history to be preserved because it is part of the cultural baggage, as well as building a society, on the other it is equally true that it is not possible to save everything and that, perhaps, a different approach to large engineering works is conceivable.

> *"the future of civilization will be determined by its cities and in its cities." (Rogers, 1997)*

Important studies have shown how the possibility of a future of man's life on earth is played out in cities not only because they absorb almost two thirds of the planet's energy resources but also because the modern settlement model has changed compared to the last century and to a widespread situation of towns and villages, concentration in large cities and metropolises is preferred.

Climate change (and in particular the consequences that affect water systems) is a phenomenon that affects the natural portions of the coasts and human settlements without distinction on a global level but, if the former enjoys an intrinsic resilience, the latter suffers the effects of a rigid design blocked by schemes and constructions unable to respond to external stresses.

If we analyze the case study of Portimao we have a clear vision of how the two different systems react to the stresses (albeit different) of the ocean and the river: the rise of the tides, the tsunamis and storm surges in general have shaped the coast of Praia da Rocha going to build, over time, imposing rock formations, the city of Portimao, on the other hand, settled with a rigid system built on the coast starting from the port, is not capable of responding to the water and its changing shape except by periodically intercluding portions of it to the users.

But if on the one hand the water crashing against the natural system continues to build changing and unique landscapes such as Praia da Rocha or the Benagil caves or more generally all those paradises of which the Algarve is the guardian, on the other anthropic landscape, the force of nature, often turns into a hell from which to escape.

If the presence of water has influenced and structured the definition of the landscape and territorial structures, contributing to the singularity and specificity of the different morphological conformations and the different plant associations, even more intensely, water has broken into the systemic mechanism of the urban phenomenon to become a generative as well as an evolutionary factor, not only of the form but above all of the activities, lifestyles and relationships that have established themselves in the area over time. (Manigrasso 2019)

Today, talking about water and the city no longer means talking only about a generative resource of the settlement but rather about a precarious and difficult relationship where the line between quality and catastrophe is blurred. Although talking about architecture capable of remedying the causes that generate climate change, and with it the disastrous consequences for our coasts or more generally for human life on the planet, is a very broad discourse, it becomes fundamental for the designer an approach to the project that starts from the awareness that any human intervention, new or that acts on an already built landscape, must be aimed in the direction of respect for nature and resilience.

Man, and the city he inhabits, must be capable of adapting to increasingly rapid changing conditions.

Barack Obama in 2014 during the presidency of the United States of America at the Climate Change Summit at the United Nations in New York reiterated how

Figure 1_The resilience of nature – photo by the author

"We are the first generation to feel the impact of climate change and the last generation that can do something" to change it.

A possible approach to the area

The project area is an ill-defined portion facing the city of Portimao on the mouth of the Arave river where fresh water and ocean meet and the tides oppose the river current, a sponge, therefore, which must be able to absorb and manage sudden changes in situations. An initial analysis shows how various portions of the natural bend of the river have been man-made over time, reducing the portions of draining land, fundamental expansion vessels of the river system. Starting from the north and following the watercourse up to the outlet in the ocean, one can see how from the natural landscape upstream one crosses that of the salt marshes, to move on to a large and widespread overbuilding of the various ports which follow one another on the banks of the river up to the last built of the "Tivoli Marina".

From the inspection carried out on a hot day in July, the common feeling was that of walking along a long promenade where the tourist vocation of the place occasionally leaves room for abandoned portions with no identity.

Figure 2_ The Riberinha – photo by the author

From the railway bridge, which marks the border with the natural landscape of the river, you take Passeio de Ribeirinha (promenade along the river) characterized by a tongue of pavement that drastically dams the river and which, like a tray, expands towards the city and welcomes sometimes functions and services, other times gardens, parking lots, squares, kiosks, fountains, works of art and museums in a succession of settings and heteronomy as in a novel by Fernando Pessoa. From an outside eye, in fact, in the long walk that extends to the horizon, one cannot help but let oneself be carried away certain that, to put it in Pessoa's last words, "I know not what tomorrow will bring".

From the order and tranquility that the "riberinha" and its moorings for the smaller and more characteristic boats arouse, we move on to a confused series of roads which, moving away from the river, cross on one side larger tourist and deserted commercial ports and on the 'other undeveloped and undefined areas of the city, "junk spaces" and car parks that underline the suburbs and the vocation of "function expansion vessel" of this potion of territory.

Figure 3_ Praia da Rocha -photo by the autor

Once the confusion has been overcome, you reach the outlet to the sea and the human measure of the river is contrasted by the infinite horizon of the ocean and the rocky conformations of Praia da Rocha.

From a second inspection of the area in the evening, the sultry and sporadically animated spaces of the "riberinha" become attractors of tourists and citizens who find, in the climate more mitigated by sea and river currents, a shelter and an urban living room. Thus, the spongy nature of the place capable of receiving and emptying itself is reaffirmed, and its identity and the peculiarity of the dimensions are better understood.

A possible approach to the project

At the beginning of this contribution, it was said that Venice represents a valid example to follow due to its unique condition as a city born from water.

Leaving aside the latest engineering works of the "Mose" (inaugurated in the recent past and whose effects can be studied in the future) not for reasons of skepticism but rather because it aims to freeze the labile system that animates the lagoon, the city of Venice gives us a wealth of experiences and projects that have followed one another over time and which find their main teaching in the masterful works of Carlo Scarpa.

Venetian life is punctuated and characterized by the phenomenon of "high water": a rise in the sea that invades part of the squares and alleys as well as the ground floors of many buildings. Although fascinating, this phenomenon creates many inconveniences and, in the most important elevations, even serious damage to buildings and activities.

In 1961 the "Fondazione Querini Stampalia" entrusted the architect Carlo Scarpa with the design of the rearrangement of the rooms on the ground floor unusable by water. The architect accepts the challenge of building an environment that is in continuity and changes with the rise of the sea and the

Figure 4_ Querini Stampalia Foundation
credits: placesofcontemporaneo.beniculturali.it

Figure 5_ Querini Stampalia Foundation – photo by the author

Figure 6_Monument to the Partisan – credits: placesofcontemporaneo.beniculturali.

phenomenon of high water becomes the theme that characterizes the whole project. The entrance from the canal, which connects to the conference and exhibition hall, is conceived as a series of succession of landings capable of receiving the water and subtracting space from the internal environments and, vice versa, in dry periods, the opportunity to descend and maintain a constant relationship with the natural element: a room, in continuous movement, capable of transforming itself at different times of the day. Thanks to these expansion vessels and channels which, crossing various spaces, convey and disperse the water, the innermost environments are kept dry. Through the construction of volumes, the choice of materials and the control of details, Scarpa's mastery is capable of restoring the charm of the city of Venice in interior environments which, continuously mirroring itself in the element that generated it, returns to the visitor " the aesthetic radioactivity" that characterizes it.[1]

But, perhaps, the work by Carlo Scarpa that best describes the constant and ephemeral relationship that Venice has with the sea is the Monument to the Partisan.

Wanting to leave out the engineering work behind this monument, the historical events that led to the creation of the statue by Murer and not the original one by Leoncillo, as well as Scarpa's commitment to bring it to its current location, the words of presentation of the project represent better than any explanation the importance of this work for its relationship with water: "I imagined it as a new small dock extending into the lagoon, located near the Biennale. Constituted an area of concrete stilts emerging from the normal level of the water in varied sizes, a floating platform is placed, on which La Partisan will be located.

The idea is very simple, this bronze will participate in the vicissitudes of the living element of the city, water. The high and low tide and the continuous movement of the water will favor multiple points of view"[2]

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[1] Tiziano Scarpa, Venezia è un pesce
[2] Carlo scarpa Progetto della partigiana

The concept of monument, with this work, goes beyond any static representation that the statue can offer: the body of the partisan always placed on the surface of the water establishes in the observer a lively representation of pain and death and, wanting to go further, it represents a city capable of adapting to the changes that the natural element imposes on it.

Portimao: a possible laboratory.

> *If there is to be a new Town Planning, it will not have to be based on due fantasies of the order of omnipotence; it will have to be the staging of uncertainty. He will no longer have to locate more or less durable objects, but to irrigate the territory with new potential; it will no longer have to meticulously define, impose limits, but expand ideas and deny boundaries; she will no longer have to be obsessed with the city but will have to manipulate and reinvent the mental space of the city itself. Ever since it got out of control, the urban is becoming a land of the imagination. Thus redefined, urban planning will not be just a profession, a way of thinking an ideology. We were building sand castles, now we swim in the sea that has blown them away.* (Mau, Koolhas, 1995)

By its very nature, the workshop is an experimental laboratory in which to confront the topic and, in a few hours, generate an answer. It often becomes a workshop for observing the problem from different angles, capable of creating approaches and, in the long term, concrete answers.
A fundamental step was to build a geography of risk and from it generate an approach to the project that places the adaptability of the place to changes at the center of the interventions rather than the rigidity of the traditional settlement system.
In view of this broader vision, the working group went so far as to seek questions even before answers and generate visions capable of building a resilient future for the city starting from the suggestions offered by the experience of Carlo Scarpa: a system anthropic, which listens, ready to react to the external stresses of climate change.
During the workshop days and in particular during the site inspection, we realized how, in the near future, the city of Portimao could suffer considerable damage from the rising sea level not only in the lower part of the city but also at the level of infrastructure connecting with the opposite bank of the river.
The ambition of the working group, therefore, was not to generate formal answers but rather to deal with a different approach to the problem by identifying and circumscribing two areas capable of reacting differently to rising tides.
Therefore, a system is generated capable of receiving, dissipating and transporting water for the linear system of the "Riberinha" which, as in the Querini Stampalia Foundation, gives portions of the city to the water and vice versa approaches it in moments of low tide; and a mobile floating connection (and at the same time protection) system between the unused cruise port and the city of Ferragudo which, as in the monument to the partisan, consists of a series of floating rafts that can perform various functions.
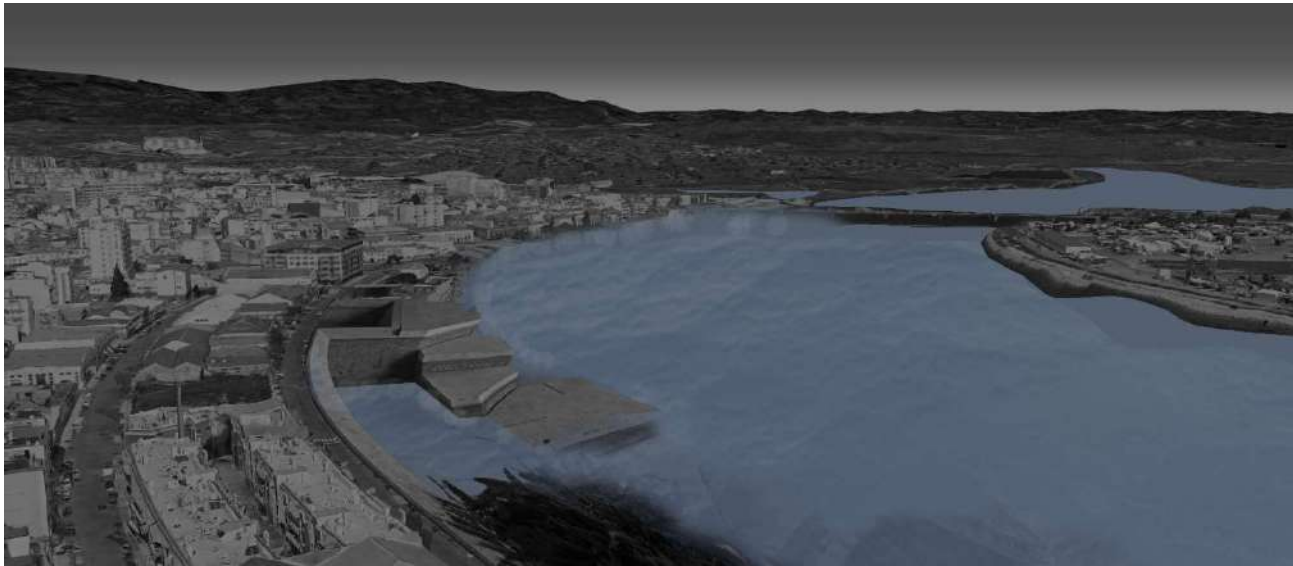
In conclusion, aware that the result obtained is far from a project, the synthesis obtained leaves the possibility of establishing a relationship between the designer and water (in its changing forms) even before that with the city.
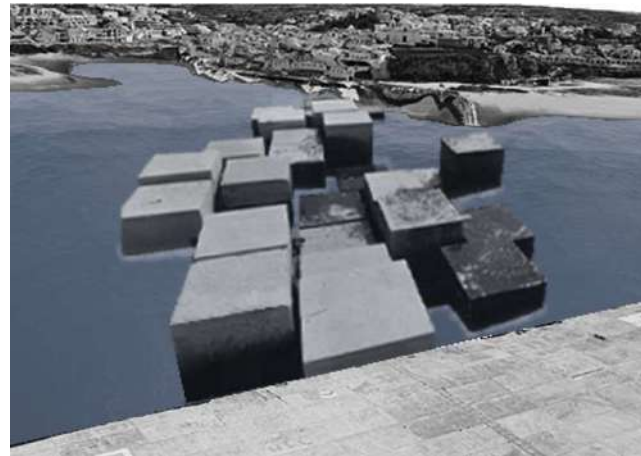
Figures 7 – 8 – 9_Interpretations of the working group

Figure 10_Interpretations of the working group

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[08]

GRUAs: alternative urban model on the Arade River

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GRUAs: alternative urban model on the Arade River
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The contemporary society has to deal with critical challenges of global resonance. Currently, the environmental issue, the worsening of climate change and the arrival of several waves of migrants, exacerbate the difficulty to adapt and design the coastal urban areas. The data collected about the rising sea levels, the spread of extreme meteorological events, and the living conditions of migrants, often reveal that coastal settlement, especially in Low Elevation Coastal Zones (LEZC), are not yet ready to these changes. Therefore, the study of "Cidade de Acolhimento", proposed as a focus for the activities developed in the Blended Intensive Programme, is a topic of relevance.

Talking about "hospitality" in urban planning and design, requires going to deepen the definition of the city as a place easily accessible to everyone. Communities need to recognize themselves in a different city model that must be inclusive and open to new forms of housing and adaptive public spaces, flexible to host and integrate different social groups. In the later years the rate of immigrants in Portugal is increasing; current studies evidence even the impact of the flows of people from UK, Germany, France, and Netherlands, especially in the meridional region of Algarve, where Portimão is located. The need to investigate alternative answers to the issues mentioned above in the Portuguese case of study is not just linked to population growth. It is a fact that even the local and original communities settled on these coastal areas are threatened by the effects of climate change, living in a vulnerable territory that is highly exposed. Maybe the whole population along the coast may be forced one day to move elsewhere. If this process does not carry out gradually, acting on the prevention of the risk, it could be necessary a radical change for people to address environmental issues, acting on the state of emergency.

Hosted by the Instituto Superior Manuel Teixeira Gomes based in the city of Portimão, the BIP Workshop in July has engaged teachers, students and PhD students of the education institutions involved in the Erasmus + program to discuss about the topic mentioned above and share suggestions. Indeed, after taking part to site visits and listening to scheduled lectures, both participants of University "G. d'Annunzio" Chieti-Pescara and Universidad de Sevilla – Escuela Técnica Superior de Arquitetura have worked for the proposal "GRUAs – Get Ready Ur'selves At Sky"[1]. The title chosen for the final presentation includes some key steps of the work done. In Spanish, the word "grúa", very similar even to the Italian translation, means "crane" and it immediately redirects to the idea of the building process. The presence of the cranes in an urban skyline let think about the transport and assembling of materials. Starting from this suggestion, G.R.U.A.s. becomes an acronym, and the choice to include the "sky" is explained by the re-interpretation of the

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[1] The working group consists of: Antonio Bandrés and José Pozo (Universidad de Sevilla), Lia Fedele and Michael Alfredo Liberato (University "G. d'Annunzio"). The activities of the group during the workshop have been supervised by Vitor Alves (ISMAT) and Josè Manuel Pérez Muñoz (Universidad de Sevilla).
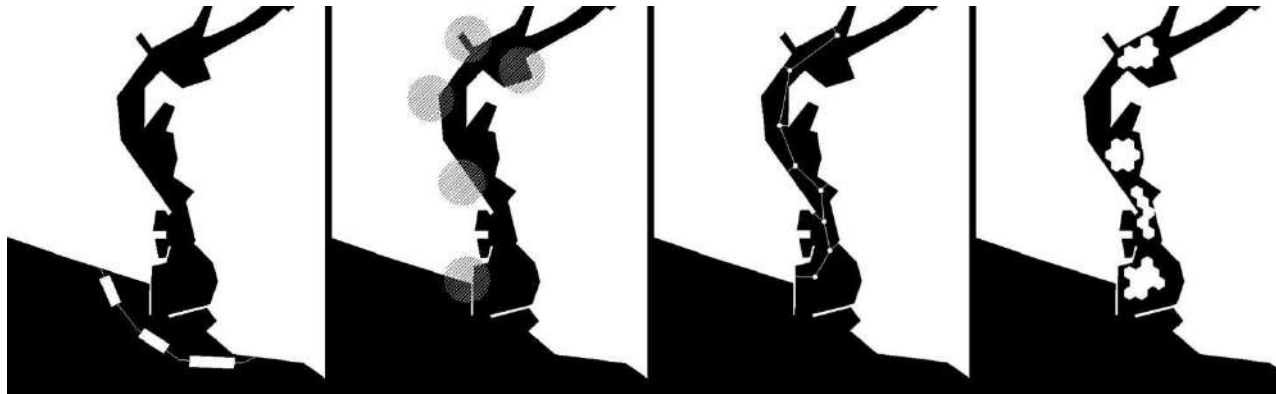
Figure 1_Diagrams of the hyphotheses of intervention, elaborated by the working group (see note 1)

floating urbanity concept described during the lectures. The adjective "floating" qualifies something that stays and moves on the water. In the case of GRUAs, the anatomy of the new urban model aims to be lifted in the air too. Viewing the interactive map processed by the group of scientist and communicators "Climate Central", it is possible to identify which areas are threatened by sea level rise and coastal flooding, as a result of combining the most advanced global model of coastal elevations with the latest projections for future flood levels[2]. The nearest projection about the coastal risk, dated in 2050, shows a critical situation, in varying degrees, along the shores of the Arade River in Portimão. These data have represented the starting point of working group's brainstorming, which lead to different hypotheses of intervention, thinking about elements of protection, punctual actions along the banks, floating structures to move out the city in the water and their future development (Fig. 1). These approaches are denoted as hypothetical, maybe a possible solution could be assessing several features because the future scenarios are provisional. It is necessary proposing a flexible modus operandi, thinking about the degrees of vulnerability of the territory but also the economic and mobility issues induced by the flooding risk and the rising of water. The areas that are supposed to be below the level of water in 2050 prompt reflection on the meaning of the river as an infrastructure, whose banks will be not more connected. Car and train bridges as Ponte Velha de Portimão and Ponte Nova do Arade will be compromised by the flooding as well as the ports, which currently represent one of the main economic sources of the city, along with the touristic flows on the shores. Portimão owes its name to its harbor tradition. The city can be considered as an active fishing harbor and it is characterized by the presence of many ports, both commercial and military, located in strategic sites. The development of the harbors along the shores has been accompanied by the development of industrial centralities, as the fish canning industry or the salt pans on the west side of the river.

Nowadays, the local economy is highly rooted on this production sector and the flooding projection of 2050 would force a reconversion plan of activities as well as their eventual resettlement elsewhere. As Michele Roda writes in his essay "Environmental connections. Shapes and opportunities

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[2]To find out more about the Coastal Risk Screening Tool by Climate Central, explore the website: https://coastal.climatecentral.org/. The online maps allow to set different timeframe and conditions (such as water level or temperature) to check future projections of the issue.
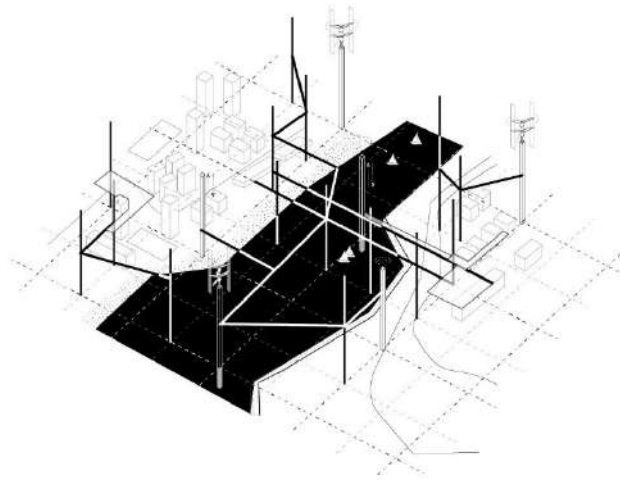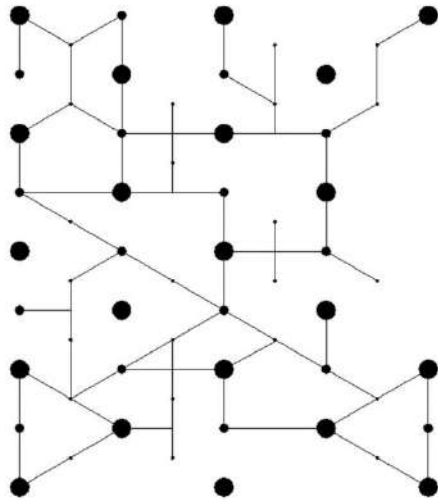
Figure 2_Diagrams of the final grid system, elaborated by the working group (see note 1)

for contemporary landscapes"[3] the river is conceived as a fluid infrastructure and the waterways which cross urbanized areas can be considered an interesting application field to think about a different balance between artifice and nature.

Investigating the definition of heritage that deserves to be protected, the mapping of the sites affected by the water level rise could be extended even to intangible goods, to deepen the securing of the banks talking about the community needs. The complexity of the issues and the existence of different degrees of vulnerability and critical features require a systematic approach, easily synthetized with the concept of a "matrix". Using a simplification mechanism, the working group represent the proposal strategy with concept diagrams, introducing different layers which compose the final matrix: a) cranes, b) infrastructures, c) pillars, d) final grid. As a first layer, the cranes define the measure of intervention; their action range identifies the primary grid to develop the alternative urban model suggested. Because of possible variations of the ground level over time, the infrastructure grid is implemented by vertical devices, which structure the second layer. These elements are intended to catalyze the tech components useful to the system, aimed to the energy provision, the network connection or rainwater harvesting. The infrastructural layer is conceived as the stable and permanent, and the devices are placed in the intersections of the cranes' operational ranges. As it is evident from the diagrams, even the third layer is identified on the basis of the acting range, using the diagonal crossing, preserving the proximity with the infrastructural elements because of functional reasons. The layer just mentioned is made of pillars, whose number and placement depend on the community needs but also from the existing fabric of the city, according to the necessary integration between the new model and the previous settlement. The final grid is a matrix of nodes, resulting from the vertical grid, and horizontal connections among them (Fig. 2). As in the case of the structural frames of the buildings, made of beams and pillars which contribute to unload the weight on the soil, even the GRUAs system is made possible by the network of vertical and horizontal components. The texture is completed by platforms and the construction process could remove the components that are not essential to the development, allowing flexible and multiple setups based on the events.

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[3] For the whole content, please refer to "*Connessioni ambientali. Forme e occasioni per I paesaggi contemporanei*" in Iacomoni Andrea (ed. by) (2022), *Paesaggi d'acqua*, Franco Angeli, Milano.

Figure 3_ GRUAs closing poster, elaborated by the working group (see note 1)

Drawing sections matching the areas affected by the most critical projections has highlighted features that require further study to propose alternative scenario in Portimão, linked to the natural and anthropic background. Everyone knows that an urban "floating" settlement, suspended between land and water, should be presented overlooking its feasibility. It is necessary to investigate characteristics as the banks' morphology, the bathymetry and the backdrops' variety, as well as economic issues as the supply and management of resources usually offered and moved by land.

Perhaps GRUAs could be an alternative to be explored, arousing conflicting reactions as the masterpiece *Le Radeau de la Méduse* (1819), painted by T. Géricault, recalled by the closing poster (Fig. 3). Overlaying events of the past (Méduse shipwreck) and the near future (vision 2100), it turns out a dystopic scenario which keeps the discussion open. The survivors look toward the new urban grid in the distance as the men of Géricault picture look toward the *Argus* ship on the horizon. The comparative approach is even motivated from the unpleasant elements hidden behind the two episodes. On the one hand, there are violent conditions denounced by the survivors of the Méduse sinking in 1816 and their cannibalism practice stay alive; on the other side, the scientific reports give evidence of the great and negative contribute of the anthropic activities on the increasing temperature, the sea level rise, and the concentration of carbon dioxide. To conclude, "Cidade de Acolhimento" has been a chance to suggest hypothetical alternative of intervention, dealing with the emergency of some issues and the necessity to change our point of view. Maybe a different urban model could move on water and "get ready at sky", but the absence of a behavior change, risks to boost the effects of the ongoing transformations.

[09]
New narratives for the city of the future
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New narratives for the city of the future
Alessandra Bianco + **Valentina Ciuffreda**
PhD Students
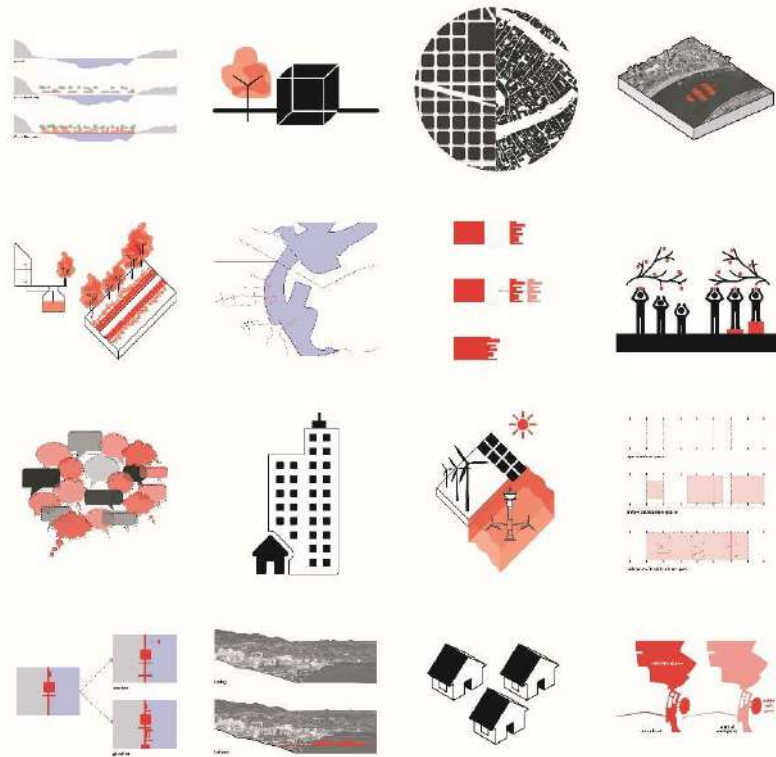**Architecture Department Università degli Studi G. d'Annunzio Ch-Pescara**

Figure 1_The keywords wall.

From earth to water and back - Keywords for a new way of thinking hospitality
Although the theme of hospitality has been at the center of the design attention in our schools for years, addressing the theme of the floating city was a great challenge for the working group in which the authors of this contribution were part, together with students and international teachers[1], during the Erasmus BIP workshop "Cidades de Acolhimento". The great challenge of relating to a theme as complex as it is interesting has led us towards a working methodology that was as much based on dialogue and the exchange of ideas and suggestions as possible, which could guide us not so much to the definition of an architectural or urban planning project, but to a series of key passages useful for defining the theme and its future design applications. And that's why, in a "think tank" approach, has elaborated reflections on a "city of hospitality" that uses water as a material for the project. For this reason we have identified keywords, which represent essential criteria to bear in mind approaching this topic (*Fig.1*).

The first question we asked ourselves was: how do we imagine this new floating settlement? As an island, independent of the starting conditions and the city it overlooks, or as a neighborhood in close connection with the existing urban structure? And the choice was the **neighborhood**, as we considered it essential to maintain a strong and direct relationship with the city, to create a project that is flexible, but not autonomous with respect to the context. Without urban life in the space of the neighborhood there is a lack of presidium, which makes public space safe, but also one of the conditions that configure it as a place of sharing, which allows us to experience places.

Thus emerges the need to rethink proximity as an asset, a social and economic value, in fact «*What distinguishes a city from any other piece of inhabited territory is the absolutely unique relationship that can be created between a community that is home to people with different origins, cultures, traditions, and needs, and the form of the space that this community inhabits; a form that the more compact and defined in its proportions and geometries, the more it knows how to become an identity and shared space for the flow of*

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[1] The group 1 was composed by professor Massimo Angrilli, professor Josè Manuel Carvalho, phD student Alessandra Bianco, phD student Valentina Ciuffreda and the students Francesca Remigio, Mariam Gonzalez Diaz, Maria Josè Gonzalez Ruiz, Claudio Barragao.

the lives of individuals.»[2] In addition, the value of neighborhood and proximity is a value that emerged clearly during the period of the covid-19 pandemic, and it is likely to be one of the legacies that this period of emergency has passed on to us and will need to be remembered in the design of our cities.

Related to it, another fundamental point of our discussion was that one of "**familiarity**". According to Simmel, «*Metropolitan man develops an organ that protects him against the threatening flux and upheaval of the external environment [...] he reacts with the mind instead of the heart.*»[3]. So we defined familiarity as a wide concept that takes into account the urban identity, its scale and structure, to ensure that people are at the center of the project, and that their inhabiting these new neighborhoods does not create an effect of alienation, but recreates the basic human conditions for living.

In realizing these intentions, it is important to take into account the role that the community involvement in the debate for the construction of the project.

Participation is not to be understood only as a participatory process in which citizens express their needs and the designers take note of them, but as a dialogue with the people and the different expertise, from different disciplinary sectors, which can have a direct role in the design. It is therefore necessary to improve the opportunities for community participation in regenerative processes, making them ordinary practice. But participation and its efficient management cannot be enough to guarantee the success of a process: it is necessary to assume a strong strategic vision, which is placed within a broader reference framework than the local context, and for this to happen it is necessary that the administrators clearly state their intentions, in order to effectively launch the regeneration programs on the individual areas in question. Although therefore the bottom-up policies originate from the instances of sociality, there is a need to involve the local administration and technicians in implementing them, in order to guide and manage their variables in the medium and long term[4].

There is a keyword in this narration that most of all holds together the topics already addressed, within the framework of hospitality, the keystone of this workshop: **social equity**, as it represents the highest level that will influence all the choices of form and function of the project, based on diversity and inclusion.

We do not know exactly the people who will live in this neighborhood, where they will come from, nor for what reasons they will come here or how long they will stay, so we will base our project on social equity, which does not mean equality. Equality and equity, in fact, are not synonymous terms: the first focuses on the starting point, i.e., rights and duties; the second arrives at a potential end point by considering the opportunities afforded by enhancing differences. It is precisely diversity that appears as a fundamental value, as an enriching factor. Using a paradox: diversity of thought, of aptitude, of ability, of personal characteristics, is a sign that the equality of human beings lives in the free expression of their difference.[5]

Identifying the potential of **water as a material for the project** means not only using it as a substitute for the soil, but enhancing the privileged relationship that the settlement can establish with it. Many of the projects seen during the presentations of these days have aroused suggestions on the countless uses that can be made of them, in addition to the production of energy, already mentioned above. Water will therefore represent the added value of the project, no longer a limit or a danger from which to defend oneself. At the same time it is necessary taking sustainability into account, through the inclusion of green and blue infrastructures, which define public spaces and their ecological performances, as well as aesthetic, for instance through **energy production**. We will try to benefit from sources such as the sun, wind and the force of the tides to produce solar, wind and tidal energy, through the inclusion of appropriate devices.

All these innovations, along with the planning of new public activities (for instance related to neighborhood commercial services), will create an increase in **jobs opportunities**. Also, in case it will be not possible to work at the office for pandemic or other issues, the new district will offer common spaces in which it will possible to carry out one's work. Furthermore, some dwellings will be arranged to allow distant working.

[2] Boeri S. (2021) *Urbania*. Bari: Editori Laterza, p. 18.

[3] Simmel G. (1969), The Metropolis and Mental Life, in *Classic Essays on the Culture of Cities*, edited by Richard Sennett. New York:Appleton-Century-Crofts.

[4] Musco, F. (2009), *Rigenerazione Urbana e Sostenibilità*. Milano: FrancoAngeli. p. 188.

[5] Pasetti J. (2021) Equità o uguaglianza? L'inclusione parte dal valore della diversità in AlleyOop_IlSole24Ore del 25 Febbraio 2021 < https://alleyoop.ilsole24ore.com/2021/02/25/uguaglianza/> [Online: 15/10/2022].

In this regard, it seemed interesting to bring back among the most important concepts, albeit with some different aspects, the concept of **minimal urban structure**, which according to Italian law[6] represents a set of path systems, open spaces, urban functions and strategic equipment that guarantee the survival of some essential services in the event of an earthquake. In our case, of course, the risk factors are different, but the idea of transforming the new floating district into a safe public space that can reduce the vulnerability of the settlement seemed to us a correct way to transform the role of water from a limit to a possibility.

Between tradition and innovation

Imagining a floating neighbourhood in the city of Portimão, on the Arade River waters, lets our vision go towards a future in which the system, maybe, will get dimensions of a *floating city*. We proceeded, however, starting from what exists: Giancarlo De Carlo said that an architect can never make wrong moves. In one of his writings[7], he considered the environmental universe as a *whole* composed of territory, cityscape, countryside, urban suburbs, city, historic center, buildings, squares, streets, etc., that are *casi particolari*: we add to these terms other ones such as seas, lakes, rivers. According to De Carlo, therefore, spatial transformation can only be in agreement - rather than in conflict - with the structure and figure of the environment: we are so invited, through a *planning mind*, to give back unity to the territory.

The first action was addressed to designing again the edge of the river, which looks at the city westward. It's not a border anymore which divides, but a *threshold* which encourages relationships: the level difference between land and water, for example, has been solved with a series of steps. The main axes of the urban structure have been absorbed by the new edge and extended into the water as connecting ways, suggesting the development directions of the system. The Avenida M. Bombarda has been chosen as the master-track of the project, because some important public buildings stand on it. If the rising waters will cause a collapse of whole urban sections, the extension of the road axes would keep the connection with the city and the new neighbourhood, even getting near through a certain critical distance, it wouldn't appear outside the environment.

Let's listen to De Carlo again: the unity of the territory is made up of a *design* which is not finished and unchangeable, but *open*, *dynamic* and *changeable*, *"alla ricerca costante di configurazioni in equilibrio che, una volta raggiunte, si dissolvono e ne cercano altre"*[8]: an evolving *balance*. It's important to talk about this word, especially - maybe - when you need to build on the water, an element which, more than any others, shows its constant and dynamic flow. Roberto Secchi, in one of his writings, deletes from the word *balance* any static meaning: it's a horizon that directs our path, unreachable because it moves with us. For Secchi, therefore, it's the loss of balance that generates the dynamics of things and their becoming[9].

Ensuring this evolving balance led us to design in terms of *flexibility*, an ambiguous and sometimes misleading word: Herman Hertzberger denounced the fact that flexible space is often synonymous with neutral space, so much so suggesting *polyvalence* as the most complete design principle. Let us note, however, the authentic meaning of the word: *flexibility* is *"the ability to change or be changed easily according to the situation"* [Cambridge Dictionary], but it's also *"the ability to bend or to be bent easily without breaking"* [Cambridge Dictionary].

In our project, we have two types of flexibility: the first one is related to the functional program combining the individual, family and collective spheres. Imitating what happens along the Avenida M. Bombarda, its extension into the water meets public facilities and hybrid buildings, in which society and man merge together, increasing and improving this way the belonging feeling to places. The residence, on the other hand, satisfied the ever rising need to live through new

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[6] "*Guidelines for defining the minimum urban structure in the master plan*" issued in 2010 by the Umbria region. <urly.it/3qfpk> [Online: 15/10/2022].

[7] De Carlo G., *È tempo di girare il cannocchiale*, in «Spazio e società», n. 54, 1991.

[8] Ibid.

[9] Secchi R., *L'architettura è l'arte dell'equilibrio?*, in «Aperture», n. 29, 2013, p.11.
[www.aperture-rivista.it/public/upload/Secchi29.pdf].

housing models, which include private and working places. Francesco Remotti wrote: *"se noi ora guardiamo un pò più da vicino le forme dell'abitare umano […] ci rendiamo conto che è opportuno pensare alla socialità intima e alla socialità esterna non già come due sfere separate e inevitabilmente contrapposte, ma come sfere che possono restringersi, dilatarsi e persino tra loro combinarsi e compenetrarsi"*[10]. *The relationship between intimate sociality and external sociality is, therefore, a natural and inevitable fact.*

The second type of flexibility holds a dialogue with time: the incessant evolution of the world needs spatial configurations which are open and suitable to change. Concerning this, we analysed Habraken's Molenvliet neighborhood in Papendrecht, near Rotterdam; AldoVan Eyck's Orphanage in Amsterdam; Le Corbusier's project for the hospital in Venice: planned starting from a spatial grid, they are based on structural modularity and cellular combination. Just defining a common matrix, the grid shares both the ordinary and the extra-ordinary elements, without forgetting the whole coherence and safing all the features about integrity and identity. In our project, the basic format consists of a steel frame, dimensions 4x6m, obsessively repeated in plan and elevation. The basic combination of six modules in plan stays on a floating platform, which reminds in dimensions of the typical block of houses we find along avenida M. Bombarda. The steel frame has the same performance of Habraken's *support*: it's an independent structure which, establishing some configuration rules, grows and changes according to needs. Inside the support there are the *infill*, such volumes which, under translation, rotation, removal etc., realize various spatial configurations. From this point of view, the *support/infill* binomial remembers Rem Koolhaas'*lobotomy* between container and content.

The natural element lives in the spatial grid too, creating connecting ways between the floating platforms and changing some spatial sets up: it lights the inside settings, it divides spaces, it gives identity to empty places, it shapes green areas for the community.

A floating organism which grows, improves and changes over the time is able to reach a high degree of horizontal and vertical *density*: let's imagine a huge *critical mass* on water. Rem Koolhaas, in *Delirious New York*, denounces a different value about the terms *ultra-density* or *congestion*: some cities made the most of congestion as a paradigm of growth.

We have seen how, *reading* the place, we managed a concept of density which could spread on big portions of water in the future: what's the balance point between tradition and innovation? Once again, let us answer Giancarlo De Carlo, who invites us to look for the dynamic balance in what he calls the *nature* or *spirit of the place,* which is*"segnato dalla natura e dalla storia: la natura è lo stato* originale, la storia è la sua trasformazione e tutte e due attraverso le loro interrelazioni definiscono la realtà con la quale l'atto di costruire si deve misurare"*[11]. So, he's saying that a building, a set of buildings, a city, become a place when they express a balanced relationship between nature and history. De Carlo is referring, as he wrote, to what is man-made. Let's borrow, then, his words: a *floating city* will only be worth when it will realize a balanced relationship between nature and history, original state and transformation, *tradition* and *innovation*.

[10] Remotti F., *L'abitare privato* in Follesa S., *Sull'abitare*, Franco Angeli, Milano 2016.
[11] De Carlo G. (1987), *Interview with Yasuo Watanabe,* in Millon H. A., 1988 *Il tempo e l'architettura*, in Rossi L., *Giancarlo De Carlo. Architetture*, Mondadori, Milano, 1988.

Portimão, reshaping the border between the city and the river. Welcoming as a paradigm for city adaptation against climate and demographic changes
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Introduction

"Una volta incardinato lo spazio del proprio abitare, lo si può percorrere. Esso non è vuoto, non è fermo, ma non è neanche piene uniformemente. Como si è detto, è pieno di presenze, di forze, di campi e domini diversi. Se lo percorro, posso sentirne le differenze di densità, il passagio da un campo di forze alláltro. Di alcuni di questi campi, domini percepisco la solia come qualcosa di attravesabili, di altri sento che è una barriera, che è pericoloso non consentito attraversarla." [1]

"Once your living space is hinged, you can walk through it. It is not empty, it is not still, but neither it is uniformly full. As mentioned before, it is full of presence, of forces, of diferent fields and domains. If I walk through it, I can feel the diffrences in density, the shift frome one force field to another one. Of some od these fields and domains I perceive the threshold as something crossable, of others I realize thet it is a barrier, that it is dangerous and you are not allowewd to cross it."

When discussing the connection between cities and rivers, the concept of border immediately comes up. Borders have always represented a challenge for those who faced urban transformations in environments close to water. Depending on the approach chosen, architects interpreted this border as either a means of separation or a means of transition, a representation of how each city perceived this relationship. In architecture, these tensions led to the creation of cities stretched out above the water, welcoming its diverse flows, or placed in a defensive position, where the inhabitants sought refuge from the unpredictable forces coming from the sea. Over the time, more problems affected these spaces, which made this delicate relationship even more fragile. The rapid and constant growth of coastal cities in vulnerable areas introduced a number of variables with which we must begin to deal. Cities, which are unable to adapt themselves to the changes occurring, are severely impacted by the effects of climate change. Moreover, the attractiveness of many of these cities increases the flow of migrants, tourists, and city users, which exacerbates the problems caused by the unplanned and sudden population increase.

This design research addresses these issues head-on and uses Portimão as a case study. The latter, for its conformation and location, turns out to be a perfect synthesis of the problems with which Mediterranean coastal cities must deal. The hypothesis underlying this work is to think that a growth of Portimão above the water, through a floating architecture intervention, can be a way to mitigate the effects produced by climate and demographic changes. For this reason, this research aims to develop solutions to the undetectable but quick rise of ocean levels. The study will also explore how to host the different lifestyles that each new inhabitant brings into the city and how to deal with the changes that their sheer presence causes to the environment. The concept of welcoming immediately emerges as being crucial in two ways: on the one hand, it is a metaphor for a renewed relationship between Portimão and the *Arade* river, in which water becomes an element to integrate; on the other hand, it represents the need to design new welcoming spaces for the growing populations on the move.

Starting from an investigation at the city scale, useful for defining an initial boundary within which to move, this work will be developed through a progressive focus. A framework of design themes will be defined through a historical analysis. These topics will serve as a primary input for the development of meta-design strategies, which are coherent with the assumptions made.

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[1] LA CECLA F., Perdersi, Meltemi, Milano, 2020, p. 123 (ed. or. 1988)

Understanding the border through a historical investigation

Looking at Portimão's history is the perfect starting point for the creation of a forward-thinking design strategy that is also respectful of the local identity. Starting from a photographic analysis (fig.1), developed comparing historical images from the early 20th century to pictures taken currently at the same spot, the theme of coastline modification emerges clearly. Eugenio Turri's words highlighted both the significance and the limitations of such an investigation:

"La diversità dei momenti fotografici è tale da rendere 'diversi' e irriconoscibili quegli stessi luoghi. Ciò perché la fotografia è un mondo a sé, autonomo, irripetibile, inconciliabile, e gli accostamenti fanno emergere significati che non sono semplicemente quelli degli 'oggetti' fotografati, ma tantissimi altri che essi portano con sé." [2]

"The diversity of photographic moments is such that those same places are 'different' and unrecognizable. This is because photography is a world of its own, autonomous, unrepeatable, irreconcilable, and the juxtapositions bring out meanings that are not simply those of the photographed 'objects', but so many others that they carry with them."

When viewed from above, the part of the coastline that overlooks the ocean between *Porto Commercial* and *Marina de Praia da Rocha* shows clearly how anthropic action deeply transformed the shoreline in the last century. Furthermore, an analogous situation can be found in the area around *Largo de São José*, running from the Ponte Ferroviária de Portimão to Ponte Velha, because of the growth of the historical residential area near the river. Observing the modification of the coastline provide some hints for the development of an analysis aimed at defining a new border between city and river. Through a cartographic analysis, the expansion of Portimão in relation to the Arade River from the 16th century to the present is reconstructed (fig.2). Also, in this case it is evident how the river underwent a deep modification. For this reason, it is decided to continue along this direction, by trying to define the space of this transformation: an interlocking zone between the coastline surveyed by a hydrographic plan from the early 20th century and the current one (fig.3). The overlapping of these marks makes it possible to determine two buffer-zones near the river, which are the most sensitive to the stresses induced by climate and demographic changes. These areas constitute the intervention spaces within which to hypothesize a new mobile coastal arrangement, which is flexible and adaptable.

Towards a welcoming floating city

The two identified areas, respectively the west one, along which the city of Portimão developed, and the more naturalistic east one, both present a great heterogeneity, which is a manifestation of the diverse ways with which the city declines its relationship with the river (fig. 4). Starting from the north, between *Ponte Velha* and *Jardim Bivar*, a first sector is identified. It communicates directly with the consolidated core of the city centre and deeply manifests its urban identity. Moving southward, *Porto commercial*, which forms a major caesura in the continuity of the coast, completely cuts off *Marina de Praia da Rocha*. Consequently, the latter establishes its own nucleus with the tourist area that overlooks the ocean. This discontinuity can be seen as well along the opposite front of the river due to the presence of the *Marina de Portimão* in deep contrast to the beaches, the town of *Ferragudo* and the *Castelo de São João do Arade*. The heterogeneity of both the river fronts brings up the need to reflect upon the issue of respecting the different detected identities. They manifest themselves both on a formal level, in the form of the city and the lines of the landscape, and on an abstract level, in the culture and traditions of these places. Specifically, Portimão, in its social and cultural space, is unthinkable without its relationship with the river with which the research project envisions a new symbiosis. As a result, a new language that is both compatible with local identities and capable of forging a new relationship with the river is required. A relationship that must be weighed against the variables related to climate and demographic changes. Such transformations in Portimão's natural and social landscape raises a second point that need to be

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[2] TURRI E., *Semiologia del paesaggio italiano*, Marsilio, Venezia, 2014, p. 4 (ed. or. 1979)

explored further: the adaptation of the city to unpredictable and unplanned change. In other words, it is necessary to introduce a new unknown, the indeterminacy, a key variable in contemporary design:

"In una disciplina come l'architettura, regolamentata dal rapporto tra equilibrio e calcolo, introdurre la componente dell'indeterminato significa attribuire valore all'imprevedibilità degli eventi e alla soggettività della loro percezione, all'interno del processo progettuale"[3].

"In a discipline such as architecture, which is regulated by the relationship between balance and calculation, introducing the indeterminacy means giving value to the unpredictability of events and the subjectivity of their perception, within the design process."

As a result of these studies, two main lines of intervention emerge. They both try to highlight ways to contrast climate and demographic issues raised in the introduction, by configuring themselves as spatial responses to the design topics that was identified. The first theme that is going to be explored is the respect of identities, declined to the redefinition of the border between the city and the river. The identified areas turn out to be the most sensitive to climate change, and for this reason the research proposes a redesign of this border, which consider the presence of the different urban fabrics, landscapes, and places the river flanks (fig. 5). This new border aims at welcoming the river by returning to it parts that was stolen from it over time. Anticipating the rise of river level, portions of the west river front are arranged as terraced aquatic squares that are both capable of welcoming water flows and encouraging a closer interaction with the river. Other parts of the coastline invade the river through floating platforms, which are conceived as porous elements that can adapt over time to support the expansion of the city in direct contact with the water. A similar approach is proposed for the *Marina de Portimão,* of which a relocation is suggested. Here, the theme of the porosity of the shoreline is intended instead in the creation of an artificial landscape that crumbles as it approached the river. Water in this way flows within its fissures, generating a new transitional landscape that responds to the frequent fluctuations of the Arade river (fig. 6).

On the opposite front, as a response to indeterminacy the theme of the flexible city emerges. Its takes shape in a transformable expansion system, which is both permanent and structurally reversible and coherent with the shape of the city. Therefore, it is decided to operate along two lines of intervention with an opposite but complementary approach (fig. 7). In the first place the theme of the occupation of the ruins is introduced. The building front closest to the coastline, the most fragile subject to the future rise of the waters, is imagined as the first palimpsest on which to operate. These buildings are considered ruins within which to graft the growth of the city, coherent with the current urban form. On the opposite front, in response to the theme of welcoming the unpredictable populations on the move, a floating inhabited infrastructure above the water is proposed. A system of adaptable frames within which private and public spaces configuration is conditioned by the succession of events and their temporal mutability. Conversely, the same spaces influence and direct human actions and the natural flows that develop within it. A proposal that seeks to mediate between the utopian scale of a floating *Ville Spatiale* and a more human sized approach that paraphrases Habraken's theory of s*upports* and *infills*. A direct relationship is established between architecture and the participation of the new inhabitants, who can contaminate and define these spaces.

"Gli spazi vengono qualificati dalle azioni, tanto quanto le azioni vengono qualificate dagli spazi. Non sono gli uni a dare l'avvio alle altre, piuttosto esistono indipendentemente. Solamente quando si intersecano si verifica un'influenza reciproca. [...] In architettura avviene lo stesso: l'evento viene alterato da ogni nuovo spazio. Ma anche viceversa: ascrivendo ad un dato spazio, apparentemente 'autonomo', un programma contraddittorio, lo spazio stesso consegue nuovi livelli di significato. L'evento e lo spazio non si mescolano, ma si influenzano a vicenda."[4]

[3] MISINO P., *Indeterminato* in Bilò F., Ulisse A. (cura di), "Progetto Plurale", LetteraVentidue, Siracusa, 2022
[4] TSCHUMI B., Architettura e disgiunzione, Pendragon, Bologna, 2005, p. 106-107

" Spaces are qualified by actions just as actions are qualified by spaces. One does not trigger the other; they exist independently. Only when they intersect do they affect one another. […] The same occurs in architecture: the event is altered by each new space. And vice versa: by ascribing to a given, supposedly "autonomous" space a contradictory program, the space attains new levels of meaning. Event and space do not merge but affect one another."

Conclusion

Such transience challenges the model of an architecture created to have a static and linear relationship with the space and time. The clear conclusion that comes from these reflections underlines a gap between the evolution of uses, which are unpredictable, and the stability of form. This assumption, however, conflicts with the necessity to seek total consistency with the identity of the place. This apparent paradox constitutes a transitory point of arrival from which new reflections must be made. This design research is a first exploration, aimed at bringing forth lines of investigation, born out of the intersection between the image of a future floating city and the territory of Portimão with its environmental and social issues. The theme of the border, the different forms of welcoming, the identities and the flexible city constitute a starting point for a broader reflection, that concretely questions the meaning and feasibility, thirty years from now, of such an intervention. So, more in general we can ask ourselves: are we ready to question the way we inhabit our cities, to such an extent that we will migrate over water in response to the changes the world is undergoing?

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Figure 1_Comparison of aerial views of Portimão showing the modification of the coastline during twentieth century.
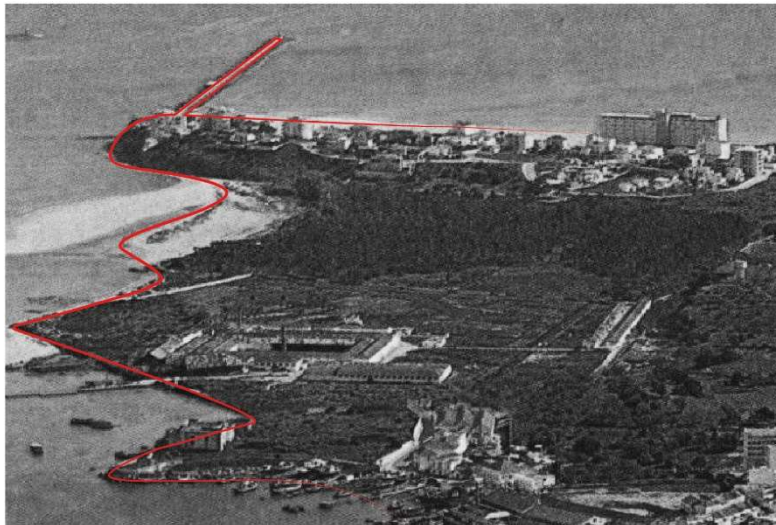
Figure 1_ Comparison of aerial views of Portimão showing the modification of the coastline during twentieth century.
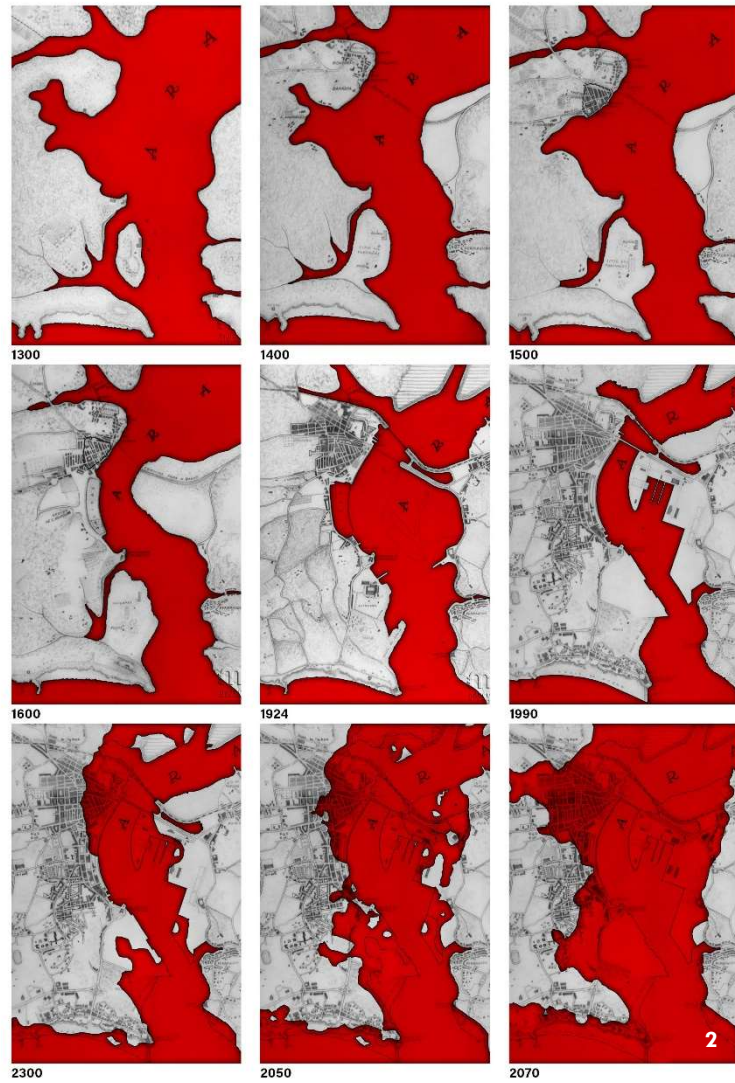
Figure 2_ Historical cartographic analysis, the expansion of Portimão in relation to the *Arade* River from the 16th century towards the future

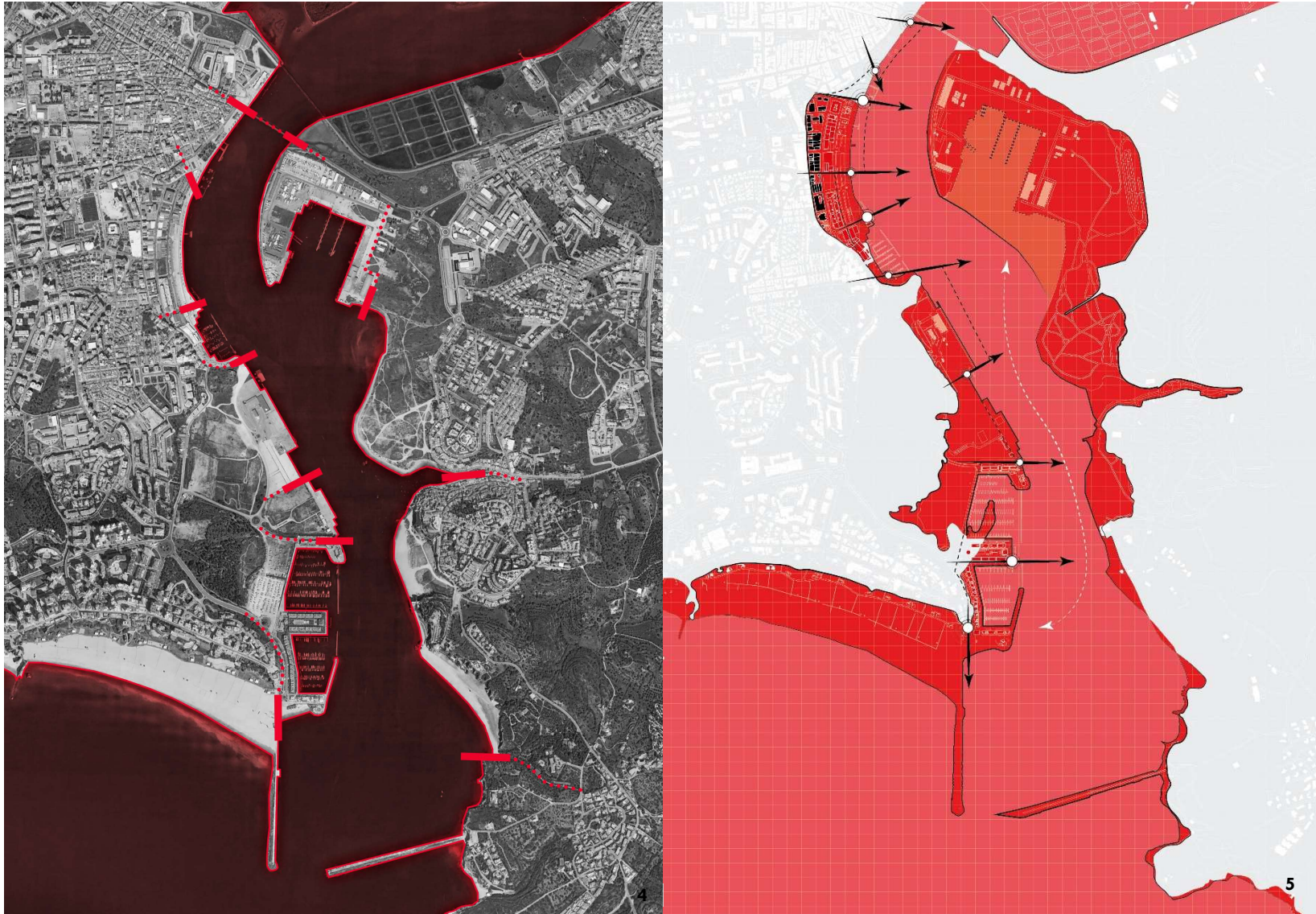Figure 3_Cartographic comparison and definition of the buffer zone.

Figure 4_Coastline sectors.
Figure 5_Urban vision.

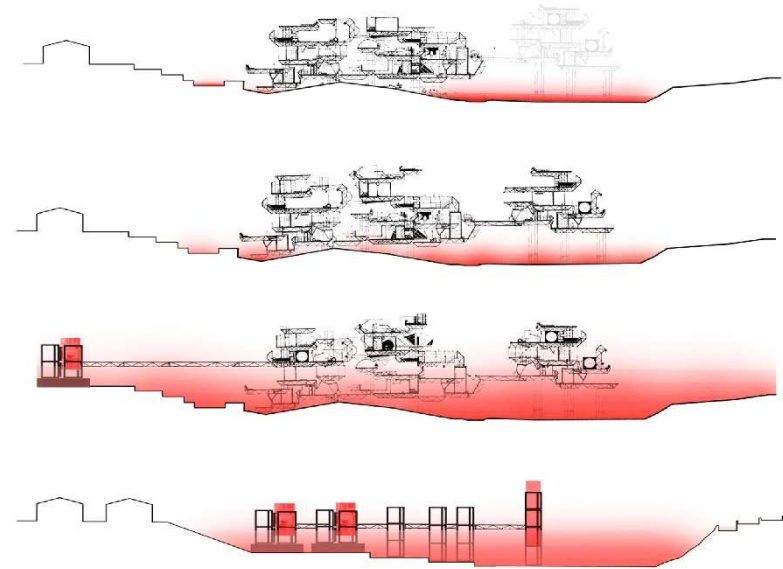Figure 6_Naturalization of Marina de Portimão into a transitional porous landscape
Figure 7_Occupation of the ruins and transformable inhabited infrastructure

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