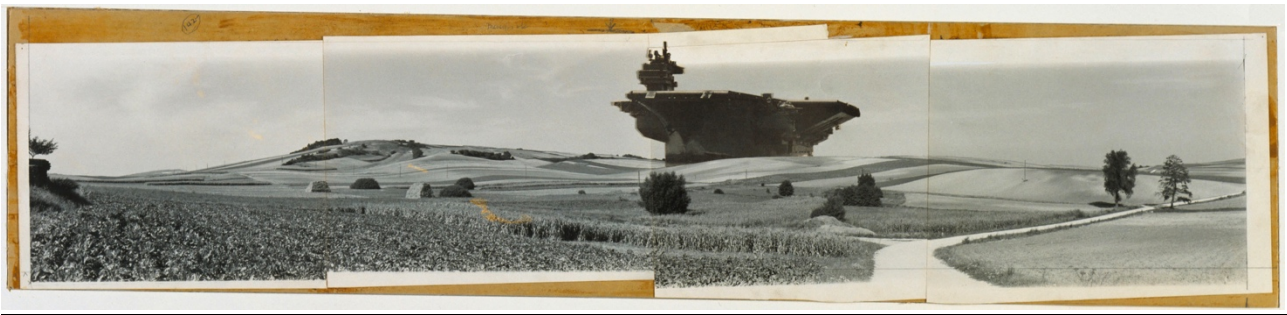


Università di Genova, Scuola Politecnica, Dipartimento Architettura e Design, DAD
Corso di Laurea Magistrale in Architettura LM-4
COASTAL DESIGN AND OTHERS EXTREME ENVIRONMENTS
Beatrice Moretti, Michele Manigrasso
code 95274, ICAR/14, 4 cfu + 2 cfu, elective course
a.y. 2022/2023, second semester

SYLLABUS

Port-City Architectures. Inclusive and Hybrid Approaches for Land-Sea Settlements

[English language course]



00. Hans Hollein, Aircraft Carrier City in landscape (collage), 1964

topics and goals

Marked by a deep-rooted dichotomy, land and sea are contexts that have always been described and designed through theories and practices aimed at emphasizing their antitheses rather than their overlaps. Yet, land and sea, as well as city and port understood as the most direct materialization of this relationship, are characterized by continuous exchanges, physical, cultural and identity-driven.

On this basis, we can recognize that, along the *border* that together divides and connects the land and the sea, the city and the port, the presence of a linear sequence of operating machines in different state of disposal. They are *port-city architectures*, residuals of the port emporium or functioning artifacts that define a *peculiar landscape*, no longer just isolated objects but fragments of a *heritage* hinged on the boundary line between city and port.

Across this amphibious line, each port has matured its own nature, so extreme as to outline a new *architectural typology* which is even today manifested through permanencies that distinguish and, jointly, unite it. *Port-city architectures* physically occupy the port-city border – or better *threshold* – increasing its heterogeneity: they are not merely buildings generated by a functional mix, but special architectures that *inhabit the threshold*, becoming carriers of new functions and uses.

With the purpose of experimenting inclusive and hybrid approaches, the course aims to develop design solutions of port-city architectures in which both urban and port programs coexist within the same building(s): e.g., a large hotel and an ecological production plant, a bathing facility and a shipyard, a residential housing estate and a cruise terminal, etc. In doing so, the course aims to address, in terms of composition and form, urban/architectural design in an inhabited/developed coastal context, confronting the relation between the built environment and the sea, coastal environmental questions, as well as issues of adaptability over time to address changes in climate as well as in social/cultural patterns of life.

Through the study of excellent international case of existent port-city architectures in world port cities (Hamburg, Amsterdam, Copenhagen, Dunkerque, Marseille, Helsingør, Cape Town, Antwerp, Yokohama), the goal of the course is to experiment the latent potential of these special urban and architectural artefacts, to encourage hybrid and inclusive design approaches straddling land and sea, and, lastly, to claim the practices related to land-sea and marine settlements in the field of architecture.

learning outcomes

The course will develop in the students a broad design ability to address coastal and port city topics, as well as environmental issues in an integrated matter with issues of public space through an urban/architectural proposal that can adapt to changing conditions.

The students will develop the ability to think and work logically and sequentially to develop a hierarchical strategy (from schematic to developed, from permanent structure to, eventually, ephemeral elements) and over a range of time.

The students will develop the ability to work in a multicultural and interdisciplinary team to learn to communicate and collaborate within a design team, integrating the knowledge and viewpoints of others from other fields of expertise. They will be able to build up an extensive body of literature and project references on the subject of coastal areas and port cities.

The language of instruction is English, so the improvement of communication skills in English and developing a disciplinary vocabulary will be stressed.

methodology

The course will be based on two exercises which are preparatory to each other and their performance determines the overall exam grade. Students will work individually.

The improvement of communication skills in English and developing a disciplinary vocabulary will be stressed

Gathering information, generating design proposals/options/schematics, and making justifiable choices from initial scheme to final development will be a process repeated throughout the semester.

Collaboration between students will play an important role in the interdisciplinary aspect of the design process (above all exercise 02) and will be part of the course evaluation.

Exercises will be accompanied by weekly collective screen reviews. Lectures given by the professors or by external guests of international standing will provide bibliographical and design support for the work of the students.

A co-creation event, **Call for Words**, will be held one time during the course. It will focus on the bibliography and literature assigned and will involve an ex-tempore activity. This activity consists of a call for new lexical categories (lexicons, words, terms, phrases, etc.) that will be launched to implement the construction of a glossary specific to port cities. Students will propose words and work on their definition by collaborating and engaging in collective discussion.

Exercise 01

study and interpretation

Each student will be assigned a case study of an existing port-city architecture. The work will consist of analyzing the building and the context in which it is set, the design choices made by the designers, from the spatial and volumetric configurations to those relating to particular technologies, materials or devices integrated into the architecture.

At this stage, the methodology of collecting data, diagrams, site drawings, photographs and models through publications (in books, magazines, scientific journals, web) and possible direct contact with the designers of the assigned architecture will be very important.

The first exercise will require the drafting of 1 A1 panel (vertical) which will collect and summarize this research and a short presentation (max 10 slides, pdf) to be discussed collectively in the classroom.

Exercise 02

project and vision

Starting from the case study of an assigned existing port-city architecture, each student will elaborate an alternative solution through the development of its own architectural project. The context and positioning of the building will remain unchanged, while the functional programme will be reformulated to include both a port function, i.e. of an operational nature, and an urban function, i.e. of a public nature. For example, students will be asked to design a building capable of simultaneously housing a large hotel and an ecological production plant or a bathing facility and a shipyard or a residential housing estate and a cruise terminal, and so forth. The combination of functions will be proposed by the students and agreed with the professors.

The aim of the project will be not only to make the functions coexist, paying attention to their respective needs and requirements, but to elaborate a distinct new architectural typology in which the port and urban character hybridize in an inclusive form.

The second exercise will require the preparation of 3 A1 panels (vertical) and a digital presentation to illustrate the project collectively.

Particular attention will be devoted to the study and definition of development phases in which the designed architecture and its context evolve progressively and are able to be transformed to meet new conditions and uses. Students will form a sequence of alternative scenarios, potentially mid- to long-term duration.

case studies

AA

Elbphilharmonie, Hamburg, GER

Herzog & de Meuron, 2017

<https://www.herzogdemeuron.com/index/projects/complete-works/226-250/230-elbphilharmonie-hamburg.html>

BB

FRAC Nord-Pas de Calais, Dunkerque, FRA

Lacaton&Vassal, 2015

<https://www.lacatonvassal.com/index.php?idp=61>

CC

Kraanspoor Office Building, Amsterdam Nord, NL

OTH Arkitekten, 2007

<https://oth.nl/projecten/kraanspoor>

DD

Docks de la Joliette, Marseille, FRA

5+1AA (former), 2015

<https://www.atelierfemia.com/fr/2015/06/docks-marseille/>

EE

The Silo, Copenhagen, DEN

Cobe Architects, 2017

<https://cobe.dk/place/the-silo>

FF

Frøsilø, Gemini Residences, Copenhagen, DEN

MVRDV, 2005

<https://www.mvrdv.nl/projects/143/fr%C3%B8silø>

GG

Danish National Maritime Museum, Helsingør, DEN

BIG Architects, 2015

<https://big.dk/#projects-sof>

HH

Zeitz Museum of Contemporary Art Africa MOCAA, Cape Town, SA

Heatherwick Studio, 2011

<https://www.heatherwick.com/projects/buildings/zeitz-mocaa/>

JJ

Port House, Antwerp, BEL

Zaha Hadid Architects, 2009-2016

<https://www.zaha-hadid.com/architecture/port-house/>

KK

Yokohama Port Terminal, Yokohama, JAP

Foa, Azpml, Farshid Moussavi Architecture, 1995

<https://arquitecturaviva.com/works/olas-en-el-puerto-terminal-maritima-yokohama>

guest lectures *TBC*

Returns to Seospace. Architectural and Urban approaches to Marine Environments

Matteo Vianello (IUAV, Venice, ITA)

All-inclusive Urbanism. Containerhafen / Lagunen / Urlaub

Something Fantastic (Peter Behrens School of Architecture – PBSA, Düsseldorf / Berlin, GER)

LEARNING BY PORTOLANS. Reading and Re-writing the Built Coastline

Stefanos Antoniadis (Universidade de Lisboa, Faculdade de Arquitectura – FAU, Lisboa)

PORTCITY FUTURES

Paolo De Martino (Leiden-Delft-Erasmus Universities, NL and IUAV, Venice, ITA)



01. Due to a storm, in 2008, the Chinese vessel Zhen Hua 10 runned aground on a sandbank in the port of Rotterdam. Lots of people gathered on the Maasvlakte beach to watch the disembarkation operations. (Photo by Leo Roubos)

calendar*note: any changes will be communicated in due time*

Monday, 09:30 – 13:30

<u>date</u>	<u>activity</u>	<u>hours</u>
FEB		
	Presentation Syllabus: topics, goals, methodology, calendar, selection of case studies	4
20/02	INTRO LECTURE What is a Port City? Beatrice Moretti Introduction to exercise 01	
27/02	LECTURE Adaptive Public Spaces to metabolize the Effects of Climate Change Michele Manigrasso LECTURE Beyond the Port City. Towards new Narratives and Strategies for Port-City Environments Beatrice Moretti Reviews, exercise 01 On-screen presentations, draft of the A1 panel	4
MAR		
06/03	PORT EXCURSION TBC Walking in Extreme Environments. The Genoa Port-City Threshold	4
13/03	GUEST LECTURE 01 Ground Beyond Land. Aesthetics, Programs and Politics of the Ocean as a Human Settlement. Matteo Vianello (Fondazione Benetton Studi e Ricerche, IT) Reviews Exercise 01 On-screen presentations, draft of the A1 panel	4
20/03	LECTURE The grammar of ports. Oceanic analogies and hybrid compositions in architecture. Beatrice Moretti Reviews Exercise 01 On-screen presentations, draft of the A1 panel	4
27/03	LECTURE Urgent Topics along the Italian coasts: Land Use, Erosion and Unsustainable Tourism Michele Manigrasso Delivery Exercise 01 On-screen and print presentations of the A1 panel Introduction to Exercise 02	4
APR		
03/04	GUEST LECTURE 02 TBC All-Inclusive Urbanism. Containerhafen / Lagunen / Urlaub Something Fantastic (Peter Behrens School of Architecture – PBSA, Düsseldorf / Berlin, GER) Reviews Exercise 02 On-screen presentations	4
EASTER HOLIDAYS		
17/04	Call for Words – Glossary Co-creation event about Literature and port cities' Glossary	4
24/04	GUEST LECTURE 03 LEARNING BY PORTOLANS. Reading and Re-writing the Built Coastline Stefanos Antoniadis (Universidade de Lisboa, Faculdade de Arquitetura – FAU, Lisboa) Reviews Exercise 02 On-screen presentations	4

1ST OF MAY HOLIDAY		
MAY		
08/05	GUEST LECTURE 04 Paolo Di Martino (PortCity Futures, Leiden-Delft-Erasmus Universities, NL and IUAV, Venice)	4
	Reviews Exercise 02 On-screen presentations	
15/05	Reviews Exercise 02 On-screen presentations	4
22/05	Reviews Exercise 02 On-screen presentations, draft of the A1 panel	4
29/05	Reviews Exercise 02 On-screen and print presentations Draft of the 4 A1 panels and of the slides	4
june	Final Critics and Exams On-screen and print presentations with guest jury	

selected bibliography and web references

BOOKS/ESSAYS

Andriani C., 2020, «Oltre. Metabolisms at the City/Port Border». In: Moretti (2020: 14-19).

Andriani, C., Moretti, B., Servente, D., 2018, «Patrimonio di confine tra Città e Porto. Il caso di Genova». *Paesaggio Urbano. Paesaggio Urbano*, 3, 29-39.

Bagli S., De Cecco E., Dellavalle A., Montanari R., Montini A., Pranzini E., 2022, «Waterfront Requalification And Adaptation to Sea Level Rise. The Experience in The Main Italian Seaside Tourist Destination (Rimini) ». In *Seascape 01, Erosions*, Primiceri Editore, Padova.

Broeze F., 1989, *Brides of the Sea: Port Cities of Asia from the 16th–20th centuries*. Kensington: New South Wales University Press. Bruttomesso R., 2006, *Città-Porto: Mappe per nuove rotte urbane*, X Mostra Internazionale di Architettura, la Biennale di Venezia. Venezia: Marsilio.

Bruttomesso R., Alemany J., 2011, eds., *The Port City of the XXIst Century: New Challenges in the Relationship between Port and City*. Venezia: RETE Publisher.

Couling N., Hein C., 2020, (eds.), *The Urbanisation of the Sea. From Concepts and Analysis to Design*. nai010 publishers, Rotterdam.

De Carlo G., 1992, *La Città e il Porto*. Torino: Marietti.

Ducruet C., 2011, «The Port City in Multidisciplinary Analysis». In: Bruttomesso, Alemany (2011: 32-48). Hein C., 2011, eds., *Port Cities: Dynamic Landscapes and Global Networks*. Abingdon-New York, NY: Routledge.

Hein C., 2020, «Designing Thresholds in the Port Cityscapes». In: Moretti (2020: 200-205).

Hein C., van Mi Y.I., Azman-Momirski L., 2022, *Port City Atlas. Mapping European Port City Territories: From Understanding to Design*, nai010 publishers, Rotterdam.

Di Venosa, M., Manigrasso M., 2022. (eds.), *Coste in movimento. Infrastrutture ambientali per la rigenerazione dei territori*. Donzelli Editore, Roma.

Moretti, B., 2022. «Architetture della Città Portuale Contemporanea. Composizioni Ibride ed Eccezionali Contesti». *GUD, Composizioni – Compositions*, n. 6, 24-33, Stefano Termanini Editore, Genova.

Moretti, B., 2022, «Il lungomare di Genova, progetto e gestione della linea di costa: l'*Affresco* e il *Waterfront di Levante*». In Manigrasso M. (ed.), *COSTE IN MOVIMENTO 2021. ATELIER DI RICERCA* (pp. 265-281). EDA / QUADERNI DI ARCHITETTURA, Aracne, Rome.

Moretti, B., 2021, «La grammatica dei porti, una morfologia speciale di paesaggi analoghi. Il caso del *Grain Elevator* di Buffalo». In: *GUD, Analogia – Analogy*, n. 3, 46-55.

Moretti B., 2020, *Beyond the Port City: The Condition of Portuality and the Threshold Concept*. Berlin: Jovis.

Moretti B., 2020, «The FRAC of Dunkirk by Lacaton & Vassal: About Incommensurability, Duplication and Openness». In: *WA – World Architecture Magazine*, 356, 114-119

Moretti, B., Komossa, S., Marzot, N., Andriani, C., 2019, «States of co-existence and border projects in port cities: Genoa and Rotterdam compared». In: *Proceedings of the Institution of Civil Engineers – Urban Design and Planning*, 172(5), 191-202.

Pavia R., Di Venosa M., 2012, *Waterfront: Dal conflitto all'integrazione*. Trento: LISt Lab.

Rosselli A., 2005, «Il porto come struttura e significato». *Portus*, 10: 4-9. Unwin S., 2007, *Doorway*. Abingdon-New York, NY: Routledge.

Tschumi B. (1981), *The Manhattan Transcripts*. Academy Editions, London

WEBSITES

TRANSITIONAL TERRITORIES, TU Delft, NL

<https://transitionalterritories.org/>

PORTCITY FUTURES

Leiden-Delft-Erasmus Universities, NL

<https://www.portcityfutures.nl/home>

BORDERS&TERRITORIES, NL

<https://www.borders-territories.space>

PORTUS, the online magazine of RETE

Venice, IT

<https://portusonline.org/>

OSSERVATORIO DEI PAESAGGI COSTIERI ITALIANI

<https://www.paesaggicostieri.org/>

SEASCAPE. International Journal of Architecture, Urbanism and Geomorphology of Coastal Landscapes

<https://seascape.it/>

BERNARD TSHUMI ARCHITECTS, The Manhattan Transcript, 1981

<http://www.tschumi.com/projects/18/#>

North Sea Wind Park

MVRDV, 2006

<https://www.mvrdv.nl/projects/98/north-sea-wind-park>

ONLINE COURSES

TU Delft Online Learning – MOOCs (Massive open online course)

(Re)Imagining Port Cities: Understanding Space, Society and Culture

<https://online-learning.tudelft.nl/courses/re-imagining-port-cities-understanding-space-society-and-culture/>

Water Works: Activating Heritage for Sustainable Development

<https://online-learning.tudelft.nl/courses/water-works-activating-heritage-for-sustainable-development/>



02. Tourists eat at a seafront café in a Chinese port, on the other side of the waterway the container ship XIN YAN TAI is docked. Stills from the movie “The Forgotten Space” (Allan Sekula&Noel Burch, 2010)

studio tools

Lectures
Guest lectures
On-screen reviews with professor and guests
Graphic boards and digital models
Techniques for presentation, control and self-assessment of design choices
Presentation and final examination

exam description

At the end of the semester, students will present and discuss with critics their design rationale and justification for the project based on the course objectives.

The work presented for the final examination will be the series of 4 A1 panels documenting the work done in both exercises. A digital pdf version of the 4 A1s and a screen presentation (max 20 slides) will also be submitted and discussed during the exam.

Aspects to be emphasized in the final evaluation are: research, references, case studies, use of information; typological and functional manipulation of the architecture of permanence and change; urban strategy, insertion of the designed architecture into the context, design of public spaces and connections; environmental conditions and integrated architectural response; collaboration and communication; visualization of the project and effective use of media; effectiveness of the work and final presentation.

practical information and contacts

The course will take place in the second semester every Monday morning (09:30-13:30) in room 5D. The course overview can be found on the UniGe website in the teaching sheet (<https://corsi.unige.it/en/off.f/2022/ins/59718>). The course's AULA WEB page is activated (<https://2022.aulaweb.unige.it/course/view.php?id=4733#section-0>) where teaching materials will be collected, deliveries managed and communications provided; it will be the students' responsibility to periodically check the platform and keep up-to-date and prepared with regard to communications and teaching documentation.

The course runs on a weekly basis and follows a timetable communicated in advance, which, depending on specific work requirements, may be subject to variations that will be communicated in the classroom.

For communications of a didactic nature and/or personal nature you can write to beatrice.moretti@unige.it and michele.manigrasso@unich.it

useful links

AULA WEB COURSE PAGE

<https://2022.aulaweb.unige.it/course/view.php?id=4733#section-0>

UNIGE WEBSITE

TEACHING SHEET

<https://corsi.unige.it/en/off.f/2022/ins/59718>



03. Women workers in apple orchards on their lunch break near a major logistics railway hub. Stills from the movie “The Forgotten Space” (Allan Sekula&Noel Burch, 2010)