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CONTEMPORARY AQUATIC ARCHITECTURE

PART 1. STUDY AND INVESTIGATIONS

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The moment that nature enters into relationship with architecture it becomes no longer whole. It changes its appearance and is reduced to elements like light, wind, water or sky. Light, wind, water or sky become the symbol of nature. Nature, which up to that point has remained definite, becomes, through its resonance with the geometry embodied in the architecture, an abstraction.

Tadao Ando[1]

[1] Tadao Ando, [w:] Levene R.C., Ce1cila F.M. (2000), *Tadao Ando 1983-2000. El Croquis*. Madrid, p. 95.

CONTENTS

SPIS TREŚCI

PRELUDE TO THE SECOND EDITION

The original monograph Contemporary Aquatic Architecture (the title of the Polish original: Współczesna Architektura Akwatyczna), which was published in 2015, became a little bit outdated after just a few years. Especially, the last part about the development conditions and the potential of underwater architecture needs to be researched again. New possibilities have come into the picture and new implementations are being built. A general aim is to prepare a completely revised part about development possibilities as well as a new scope and area of implementation. In order to serve this purpose, the scheme of the work has been changed in such a way as to better fit the established goal. Topicality of the set of literature research has remained unchanged. The structure of the monograph has been remodelled in order to better represent the scope of the research. The publication has been divided into three parts which will be published in separate monographs.

PART 1. STUDY AND INVESTIGATIONS
PART 2. DESCRIPTION AND SYSTEMATICS
PART 3. A NEW SCOPE OF IMPLEMENTATION, CONDITIONS OF DEVELOPMENT

All three parts will be published separately paying attention to new current studies.

The first part placed in the present book describes the relevance of the topic and provides the documentation of the scope of investigations. The information from final annexes has been placed at the main body of the monograph, because it improves the logic of the science work about aquatic architecture. The full investigations presented in one of the chapters of the monograph can invite readers to participate in the research and take their own view on objects classification. It is interesting if the reader will have the same classification results as the author?

The next part will focus on the description and systematics of aquatic architecture. The final part will be the realization of the aim and it will contain a new scope and conditions of implementation of the aquatic architecture.

The second edition will be published in English with important changes in the structure of the work.

The scope of aquatic architecture is international, so the first edition in Polish had a small range of influence. This is the reason for the preparation of the English edition. Additionally, the monographs will be published in the digital network, which can make them more accessible to readers.

PRELUDE

Contemporary trends of development of the architecture using water as environment, material, inspiration or determinant of the object's purpose have a great potential. This potential results from the discovery of a new area of designing and implementation, which is underwater space. Systematics of a set of architectural objects connected with water facilitates their scientific observations. The relations with water may be physical or immaterial. The former ones are based on the vicinity of a natural water basin and a building[2], where water is used as a functional element. The latter ones consists in the creation of associations with water, the search for inspirations in water – being an element of the environment and the synthesis of cultural references.

The issues connected with the mutual relation between water and architecture constitute the area of studies which can be called **aquatic architecture**[3]. The research in this scope focuses on the analysis of elements of this set of objects and their common features. Furthermore, it enables finding creative and artistic potential in little-known and unexplored areas as well as trends appearing in and shaping contemporary architecture.

The reasons for building certain objects and the ways of application of certain spatial solutions are not always clear and unambiguous. Some buildings and structures are constructed in a specific, naturally defined spatial context, others are implemented as a result of individual

[2] Significance of the relation between the natural and built environments is emphasized by **Baranowski A.** (1998), *Sustainable Designing in Architecture - Projektowanie zrównoważone w architekturze*. Politechnika Gdańska.

[3] the word *aquatic* is derived from Latin (*aqua* means water). The fact of undertaking the subject of such architecture by foreign researchers (**Wylson A.** 1986, **Williams E.** 2009) suggests that there is the necessity of a more precise definition of this term in the context of architecture as well as an attempt to determine a set of objects of contemporary architecture built in close relations with water.

associations and inspirations of designers. Water being an environment, material and element is sometimes a pretext for creating architecture which bears common traces. Such common features reveal themselves at the level of technical solutions and emotional associations. Open waters as an element of the natural environment constitute a symbol and representation of the natural world in architectural solutions. However, not always such references are necessary in the case of contemporary users who have a good command of new technologies and sciences. The descriptions of the role of water in architecture, which are based on the references for instance to emblematic meanings of the very element[4], seem rather archaic nowadays.

Water as a physical substance is introduced into a building object for technological purposes connected with the transformation of the internal climate or becomes a part of artistic solutions[5], sometimes even structural ones. Construction on water or in its close vicinity causes the transformation of the natural space into a built environment[6].

[4] **Niemczyk E.** (2002a) and (2002) presents perception of the world originating in antiquity, which divided the natural environment into elements. Adoption of a concept of water as an element in architectural deliberations does not correspond to the contemporary perception of reality.

[5] **Nyka L.** (2013), *Architecture and Water – Crossing the Boundaries - Architektura i woda – przekraczanie granic*, p. 45-72.

[6] *Built environment* – the name used by leading authors, such as **Lang J.** (1997), *Creating Architectural Theory: The Role of Behavioral Science in Envrionmental Design*. Van Nostrand Reinhold, New York; **Lenartowicz K.** (2005), The Dictionary of the Psychology of Architecture; A Textbook for Students of Architecture - *Słownik psychologii architektury, podręcznik dla studentów architektury*, Pol. Krakowska.

Chapter 1. STUDY

Essence and significance of the problem

Research subject and objective

Role of water in architecture – state of research

1.1. Essence and significance of the problem

Analyses of contemporary assumptions show that light, air and sunlight do not constitute all factors that determine the architectural design.[7] Application of water is becoming more and more popular to such an extent that it is becoming a trend thanks to which architecture acquires innovative features in new relations (**Fischer J.** 2008).

The motto 'water in architecture' brings associations with Tadao Ando (**Levene R.C., Cecila F.M.** 2000) and Frank Lloyd Wright. The researchers exploring this subject remind that: 'Water is not only a life-giving element in our existence, but it may be also experienced in many ways. Water creates various kinds of mood and atmosphere influencing thus our feelings.'[8] 'Water is far from being a mere source or material: it asks you to discover its life-giving capabilities. [...] Getting to know basic properties of water as a material is necessary to enable the implementation of assumed ideas"[9].

In order to check how important is the undertaken subject to contemporary architecture, first of all it is necessary to formulate the answer to the following question: how numerous is the set of the objects of contemporary architecture representing the relation between water and the formation of space? Applying inductive reasoning, it may be assumed that the gravity of the undertaken subject to the science of architecture will be proportional to the participation of a number of objects showing relations with water against the background of all implementations. In order to conduct the above-mentioned verification an initial test was carried out. Objects of contemporary architecture listed in a thematic atlas (**Phaidon** 2004) were chosen as a research sample.

Representativeness of the examples presented in *The Phaidon Atlas of Contemporary World Architecture* – a publication documenting outstanding architectural works from all over the world built after the year 1998 – for the contemporarily built objects was assessed on the basis of the methods and rules of selection of examples by the authors of the elaboration. This collection includes 1052 architectural implementations located on all continents. The objects are situated in 75 countries and the number of authors of the designs listed in the above-mentioned publication amounts to 656 designers[10]. All presented works are provided with a short description. The description defines the context, conditions of coming into existence, inspirations, fundamental data as well as technical and spatial solutions. The included architectural drawings consist of essential projections, sections and photographs showing the objects. The method of selection of the examples presented in the atlas, their evaluation and the adopted model of publication make it possible to state that they are a characteristic set of examples of contemporary architecture and therefore they may constitute the data for the performance of a quantitative test.

The number of architectural objects having relations with water was determined in the whole set of all presented objects. Dependencies between architecture and water were assessed in a subjective way. The following material relations were sought: with the location and site as well as

[7] Tadao Ando (compare motto).
[8] **Woodward R.** (2005), *Water in Landscape*, [in:] *New Waterscapes*, pp. 10-11.
[9] **Dreiseitl H.** (2005), *Water is Universal*, [in:] *New Waterscapes*, pp. 42-45.
[10] Nominations for the publications were selected by well-known experts in the field of architecture, including academic teachers, critics, professional designers as well as architectural journalists. The initial list encompassed over 4000 buildings. The designs were reviewed with a special attention paid to their contribution to architecture as art and science. In this way the collection presenting the most significant objects of contemporary architecture came into existence (Phaidon 2004).

with water as a substance of specific artistic, technical, functional and immaterial properties as well as of certain symbolics and emotions, etc. An expert evaluation was applied[11] as an adequate method of investigation of this new research issue (**Niezabitowska E.D.** 2014). The assessment of these architectural objects assumed that the relation with water can reveal itself in the following ways:

1. location above the water, on the water, under the water or at the waterfront;
2. functions connected with water (e.g. swimming pools);
3. author's inspirations by phenomena related to water (resulting from the description or name of an object);
4. references to nautical architecture (naval architecture, etc.). This feature was determined individually as the most subjective.

If a building revealed features 1, 2, 3, then it was qualified as a building having relations between an architectural form and water. If a building showed feature 4, then it was qualified as architecture connected with water in an indirect way. The feature no. 4 is difficult to assess objectively as it hides certain associations, emotions and cultural environment. Therefore it was sectioned off from the main stream of classification to check how big an impact the consideration or non-consideration of this particular feature would have on the research results. The results have been presented in the diagram and placed in the table.

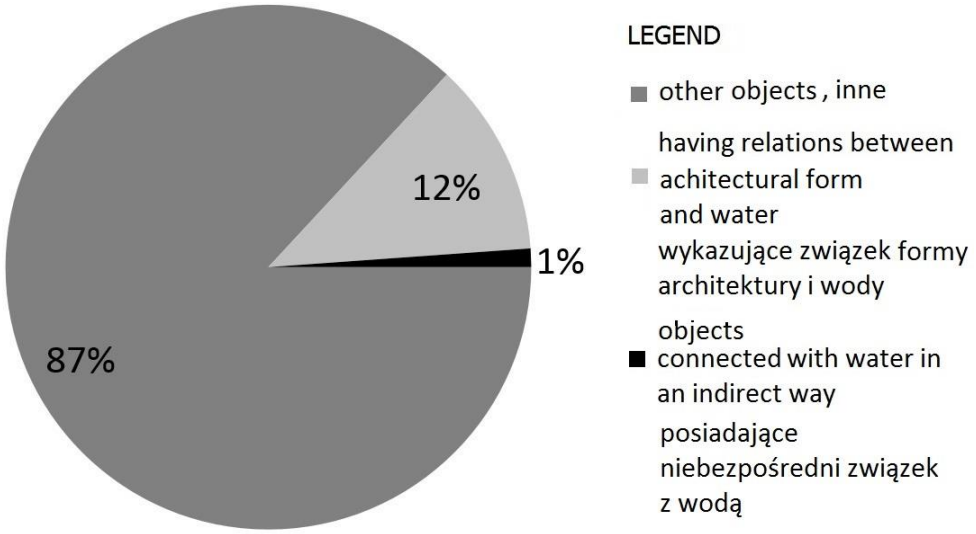

Fig. 1. Proportion of the number of architectural objects connected with water to all the implementations presented in the Phaidon Atlas of Contemporary World Architecture (Phaidon 2004) [own study].

Proporcje liczby obiektów architektury mających związek z wodą do wszystkich realizacji przedstawionych w *Phaidon Atlas of Contemporary World Architecture* (Phaidon 2004) [opracowanie autora]

[11] Legitimacy of using an expert method in the case of 'deeper analyses conducted at the scientific level', such as the determination of new fields of study, was emphasized by **Niezabitowska E.D.** (2014) in: *Research Methods and Techniques in Architecture - Metody i techniki badawcze w architekturze*, Publishing House: Wydawnictwo Politechniki Śląskiej, Gliwice, pp. 161-163.

Table 1
Research results from initial observations of the frequency of occurrence of architectural objects showing dependence between architecture and water on the basis of the implementations presented in *Phaidon Atlas of Contemporary World Architecture* (Phaidon 2004)
[own study]
Wyniki badań wstępnych obserwacji częstości występowania obiektów architektonicznych wykazujących zależności architektury i wody na podstawie realizacji zaprezentowanych w *Phaidon Atlas of Contemporary World Architecture* (Phaidon 2004)
[opracowanie własne]

	all investigated	others	relations between arch. form and water	indirectly connected with water
number	1052	914	126	12
percentage	100	86,9	12,0	1,1

The above-presented table and diagram show the answer to the question about the importance of the issue of the relation of water and contemporary architecture. The table and diagram show that approximately12–13% of the implemented objects – selected by the authors to be placed in the atlas of contemporary architecture – have highlighted relations with water. Taking into consideration previous deliberations and the assumption that the set of examples in the atlas (Phaidon 2004) is representative for contemporary architecture, a conclusion may be formulated that the issues of the relation between contemporary architecture and water constitute a significant designing problem and research material for the science of architecture[12].

[12] The investigated area is on the border of science and designing practice. In the late 1980s, an attempt was made to define a new field of study called the expertise or knowledge of architecture (**Niezabitowski A.** 1988). Relations between these elements of the built environment appear in the user's perception. They are based on evidence and analyses but also on intuition and associations which are difficult to measure by means of scientific methods (**Apanowicz J.** 2005).

1.2. Research subject and objective

The subject of the research focuses on a role of water in contemporary architecture. Relations between water and architecture essentially come down to the role of water in a process of shaping the built environment, i.e. to artistic and technical solutions, symbolic inspirations and functional properties as well as the issues connected with the location of a building in relation to water. There are locations of buildings in the area of the so-called *waterfront* or setting of buildings in the water. A separate issue is the confrontation of architecture with water as an obstacle. Observations and analyses of these issues aim to distinguish and separate a set of objects constituting a new area of architectural implementations and to show the directions of development of present trends in aquatic architecture.

The diagram below (Fig. 2) shows a position of the issues of architecture connected with water, the determination of new areas of studies and their location in the set of knowledge. The presented built environment is represented by sets of knowledge such as urban planning and architecture. With relation to the subject of this work, the set of architecture includes a separate subset of contemporary architecture. Water constitutes a set including elements which were implemented artificially or elements existing in nature. Natural occurrence of water is an issue which is closer to the considerations of urban planning, whereas artificial implementation of water into the living space of human beings remains the domain of architecture.

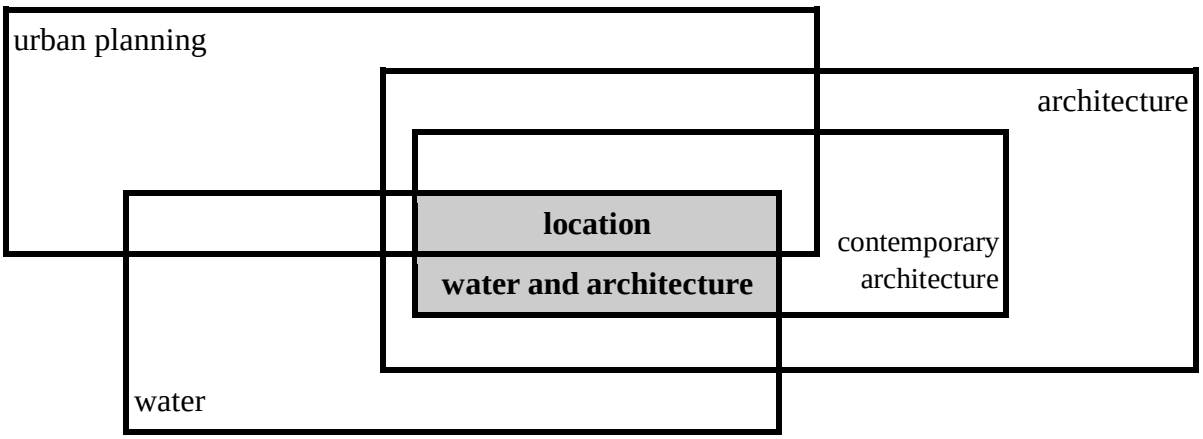

Fig. **2.** Diagram of research areas. Groups of issues covered by the research on the relationships between water and the built environment, against the background of the domains of current research, determined on the basis of bibliography [own study]

Schemat obszarów badawczych. Zbiory zagadnień objęte badaniami relacji wody i środowiska zbudowanego na tle domen aktualnych badań, wyznaczonych na podstawie bibliografii [opracowanie autora]

The diagram presents areas representing subsets of issues being common parts of urban planning, contemporary architecture and water. The subject has been limited to the issues of contemporary architecture. The following subsets can be read from the diagram: the first one – includes issues of location of objects in the environment, the second one – encompasses interactions between water and architecture.

Assuming that:

- impact of water on contemporary architectural designing leads to the creation of a set of objects of a joint character,
- human building activity expands to new areas connected with water environment,

objectives of this work are defined as follows:

I. Research and systematics of the functions of water in contemporary architecture – presented in part 1 (the current monograph)

II. Description of a method of classification of contemporary objects into the set of aquatic architecture by means of a uniform formula based on the analysis of the functions of water in an architectural object – established in part 2 (the subsequent monograph).

III. Determination of the conditions of architecture in a new area of implementation, i.e. in underwater architectural space – established in part 2 (the subsequent monograph).

IV. Presentation of new tendencies in contemporary aquatic architecture and definition of the factors determining their development - the aim of the final study (the last of the series of monographs).

1.3. Structure of work

Structure of work

The adopted method of investigations determined the work structure. The substance of the work consists of three parts:

1. 'Study and Investigations' (the scope of the current monograph) includes the introduction of the subject and determination of the background of the investigated issues as well as own research in the scope of the relations between water and architecture. Particular sections focus on the following:

- verification of significance of the subject of water in architecture on the grounds of the statistical analysis. The first stage of the research (initial investigations) aimed to determine the relevance of the undertaken problem for the designing issues of contemporary architecture;
- definition and crystallization of the term 'aquatic architecture' on the basis of the analysis of the subject-related literature. A review of terms and expressions was done in available publications connected with the studied subject matter. Terms which appropriately describe the investigated issues were found.

In conclusions, the role of water in architecture was determined on the grounds of collected data from the subject-related literature.

2. 'Description and Systematics' (the next monograph) focuses on dependencies determined in the analysis of the so-far scientific investigations. On the basis of the information provided by the authors of studies in the scope of water and architecture, the area of investigations in the subject-related literature was defined. This part includes:

- devising the systematics of functions of water in aquatic architecture. On the basis of object research cards, sets of functions of water in the spatial and functional structure were created. Characteristic features of the analyzed water functions were highlighted in a selected group of objects.

The conducted classification encompasses:

- presentation of selected designs of the objects of aquatic architecture, including the assignation of a set of functions of water in the spatial and functional structure,
- definition of a scheme (system) of inclusion of an object into the set of aquatic architecture on the grounds of the assigned water functions.

3. 'A new Scope of Implementation, Conditions of Development' is going to include the renewed research material:

- synthesis of the issues concerning architectural objects in new underwater scope of implementation, which amounts to the determination of basic conditions of planned and safe creation of underwater architectural space.
- summary of research-related issues in which the possibilities of development of basic trends and new areas of implementation are determined on the basis of the SWOT analysis. Favourable conditions for the planned development of aquatic architecture are provided.

Diagram of research

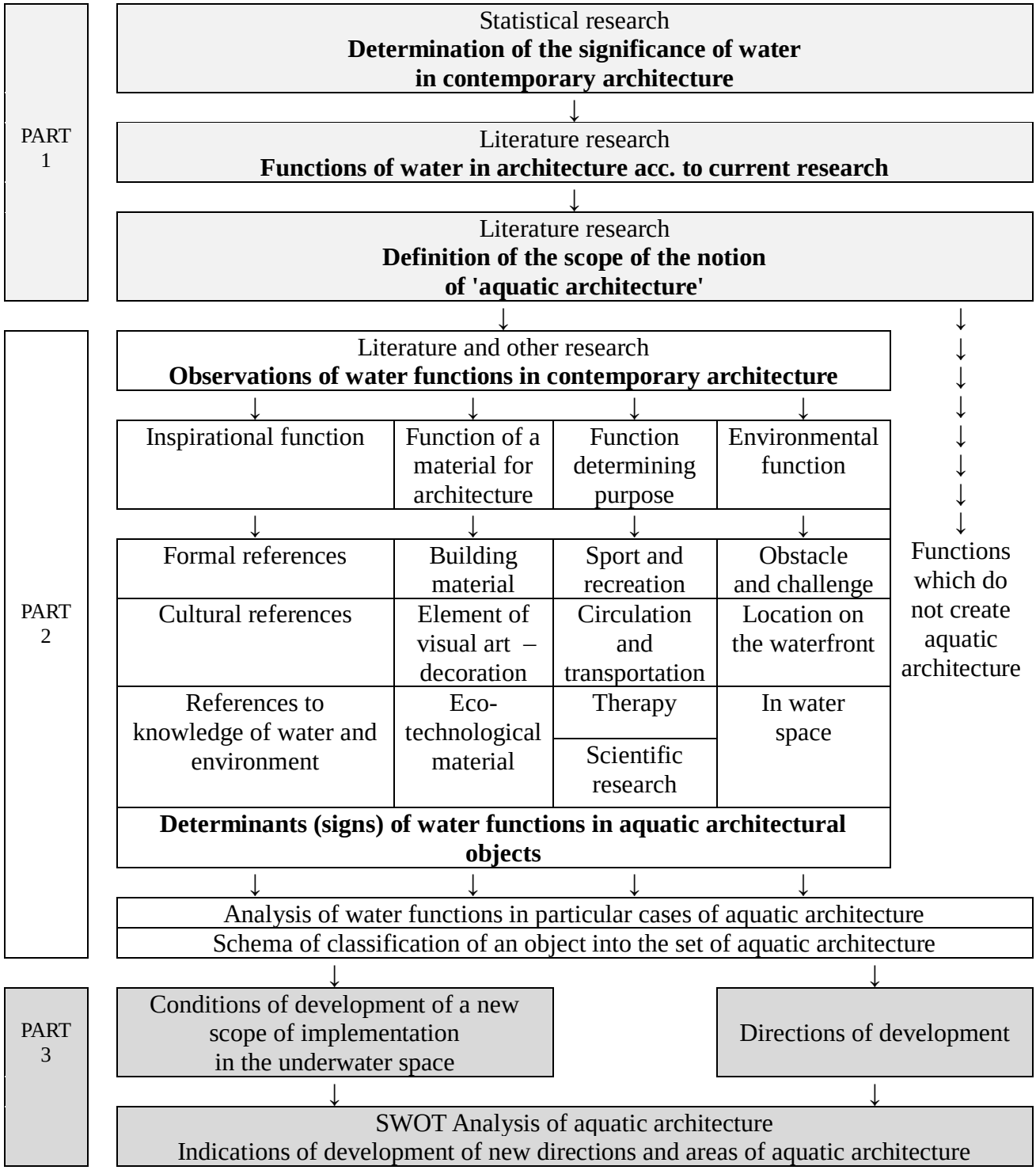

Fig. 3. Diagram of the course of conducted investigations and analyses of the issues of aquatic architecture [author's own study]

Schemat toku przeprowadzonych badań i analiz problemu architektury akwatycznej [opracowanie autora]

1.4. Role of water in architecture – state of research

Significance of the subject of water in architecture has been noticed and appreciated by numerous artists and authors. The role of water in architecture may be analysed on the basis of the subject literature, topics of conferences and designing competitions as well as the search for specific terms used to describe issues of the relationship of water and architecture. Own scope of research has been conducted against the above-mentioned background.

State of research on the basis of subject literature

Relations between water and architecture have been present since time immemorial. They resulted from utilitarian applications of water, fascination with water as a natural element, material or scenery. Water environment provided inspiration for creating spatial forms. **Davey P.** (1998) emphasizes that the first man who applied solutions based on the water-architecture relationship was emperor Nero. In the so-called Golden House located at the heart of Rome, Nero introduced spatial solutions based on a pool which had massive dimensions. It should be pointed out what huge extravagance was it, especially that it happened just after the Great Fire of Rome.

As **Libura H.** (1988) and **Jalowiecki B.** (2002) write, emotional relationships of a human being with the river are expressed in historical tales, images and legends. In personal relationships water adopts symbolic meanings as well as outlook, functional and ordering roles. **Niemczyk E.** (2002) shows that traditionally perceived water is sometimes a synonym of danger, a threat or a symbol of destruction, whereas on a different occasion it is a life-giving liquid, a soothing and healing element. For some people, different forms adopted by water – starting from a calm sheet of water, through rivers, rushing streams, cascades to waterfalls – are a reflection of moods of the mind. From a historical perspective, water adopted metaphorical and symbolic forms, which played at the same time a utilitarian function serving the purpose of hygiene and cooling. The existence of water in the history of architecture is connected with atypical and non-defined geometry as well as sensations transmitted by more senses that in the case of other materials commonly deemed to be architectural building fabric. Space can be filled with the scent and sound created by the very water. Historic places of cult, prehistoric settlements as well as ancient river civilizations came into being in places where they were influenced by the presence of both water and human works. The history of architecture shows the creation of formal elements of some buildings serving the purpose of water management or protection against water. Such constructions were built to be used in water transport and management.

Braem H. (1994) points out that archeological evidence reveals that water played additional roles already in prehistoric times, apart from utilitarian and life functions. For instance, water was present in the cult connected with animals. The discoveries of water pools or tanks accompanied by paintings suggest that the element of water was worshipped there. Also the images of 'goddess mother' were linked with a dominant role of water in the ancient world. The developing farming culture formed rituals and ceremonies based on the cult of water and connected with fertility at the same time. Confirmation of the metaphorical significance of water was discovered in burial caves. The sheet of water constituted the window to a different reality. Dishes or vessels filled with water symbolized the transition to the other side, into the world being a reflection of this reality. As **Reden S.** (1982) notes, a spring of water was treated as 'the eye of a deity'. The places of cult encompassed: cascades, streams and hollows in the rocks.

Simon E. (2000) shows how the swelling or surging of rivers became an inspiration to create the first deities embodying force and strength. Initially, rivers were presented in the form of a bull, later the element of water was personified by male muscular figures of Neptune (Poseidon) with a trident or a dolphin. The force of influence of these mythological figures is so immense that they have remained up to this day a powerful popular symbol of the sea and ocean in our circle of culture.

In Hindu culture, rivers are personified by female deities, usually accompanied by water animals. Apart from the very element of water, these goddesses symbolize also life and fertility. **Uhlig H.** (1993) describes how in the Egyptian culture the river Nile became the axis of the ancient civilization. The river was personified by figures of the most important deities, including Osiris himself. The Nile was perceived as a symbolic link between two worlds. Such a role is continued by the river Styx. The biggest cities of Mesopotamia were founded in the vicinity of natural water basins. The temples of those cities accentuated water as a crucial element of the circle of life. According to **Haarhaus J.R.** (1925), in ancient Rome the Spring of Juturna on the Palatine Hill was recognized to have the healing properties of water and was thus decorated with the figures of Apollo and Asclepius. **Fratino U.** (2002) presents a historical approach to the subject of water showing different aspects of technical novelties and innovations in the scope of water management in architecture and urban planning in a multi-author publication *Landscapes of Water.*

Special buildings and structures were constructed with the purpose of providing water management – as described by **Krenz J.** (2007). While enumerating objects such as: aqueducts, thermal baths, fountains, toilets, canals, bridges, ports, water towers, etc. or describing details, such as: roofs, eaves, rain gutters, water spouts, lead pipes, elevation skirting boards, crown cornices, wall cornices, jerkin-head roofs, window trims, portals - we are talking about elements which are used to manage water. **Mączeński Z.** (1956) describes the role played by water in the history of architecture in shaping elements and objects. Beautiful ornaments of vintage town houses also result from mundane reasons, such as protection of materials which are not resistant to water. Forms of architectural elements connected with water and different ways of their composition constitute the topic of the unpublished Ph.D. thesis by Banasik-Petri K. (2001). In her elaboration, the author draws the relations between water and architecture close together.

Niemczyk E. (2002a) notices the importance of water in architecture starting from prehistoric places of cult. In these specific sacral spaces, special zones were arranged in order to honour certain properties of water and to emphasize its role as a cult. Garden compositions and architectural details resulted to a great extent from the inspiration by water, which was interpreted as one of the natural elements, a symbol or simply as a decorative ornament. The significance of elements inspired by water and references to the very natural element of water cannot be underestimated in the architecture of ancient Greece and Rome as well as in the epochs of Gothic, Enlightenment and Baroque. Beginning from more or less the 17th century, water started to be treated as a 'fluid material'. Carrying such great historic heritage, the water made an entrance into the architecture of modernism, among other examples through implementations, such as *Fallingwater House* by Frank Lloyd Wright.

The issues of the relationship between water and built space are often brought up in the context of city building and development. The impact of the river on the development of civilizations as well as on urban planning principles has been a frequent subject of academic deliberations. **Piskozub A.** (2002) elaborates on the research subject of the city-forming role of the river and subsequent spatial reversal of cities from rivers due to the loss of the economic

significance of rivers. A group of huts of Lepenski Vir – the first purposefully formed spatial system of a settlement connected with water – was discovered on the river Danube. The settlement was described by **Droessler R.** (1988). The axes of huts were situated perpendicularly to the river bank line. In the same direction the entrances to the huts were located providing at the same time the interior with lighting. Such orientation of the site had practical implications for the settlement's functioning. The relationships of the spatial system and water are emphasized in settlements which were built in the Chinese cultural circle. As **Kelling R.** (1935) writes, in Chinese culture the principle of location of a settlement (a house, hamlet or town) follows the saying 'with your back to the mountains, with your face to the water'. Chinese teaching about spatial relations, which appears also in European trends nowadays, is called *feng shui*[13] meaning: 'wind and water'. **Crouch D.P.** (1993) writes about water in the context of development of the urban planning system of ancient Greece. He describes water as a city-forming factor. Development of the culture of water management in cities was a driving force of the economy. **Bonenberg W.** (2009) presents well-known solutions of water supply in the cities of ancient civilizations.

Zipser (2002) makes the regional economic development conditional on rivers. He analyzes their role in transport capacity of the whole Europe and an individual country. He evaluates how the river affects the administrative division as well as influences economical and geographical split of the countries. Cultural grounds for the urbanization of rivers are characteristic of traditional societies. Contemporary urban planning eliminated a close connection of cities and settlements with water in the form of a river, as is written by **Juchnowicz** (2002). Water in the form of a river is a creator of the landscape. Its role in the shaping of the riverside scenery is of a primordial character. The phenomena in the natural environment and the built environment are linked together and creatively influence the architecture of the riverside areas. Becoming an inherent part of the riverside landscape is a fundamental quality of the settlement architecture of such areas, according to **Bogdanowski** (2002). Regeneration of the urban tissue of riverside cities or formation of the riverside landscape of urbanized areas take place by means of creation of architectural objects on various scales. This process can be followed, in **Pancewicz A.** (2002, 2000), on the basis of urban planning processes taking place for instance in: Kassel (Germany) on the river Fulda, Leeds (England) on the river Aire, Porvoo (Finland) on the river Porvoo, Bilbao (Spain) on the river Nervion, San Antonio (USA) on the river San Antonio. Crossing water in the urban tissue is usually connected with the construction of bridge structures. The impact of bridges on the urban planning structure has not only a functional but also an aesthetic dimension. The bridge is an interdisciplinary work of art combining the efforts of both the engineer and the architect, as was pointed out by **Buchner** (1982).

Large-scale research on the relation between water and architecture is presented in publications concerning South Asia and Syria by **Hegewald J.B.R.** (2002) and **Miranda A. de** (2007). These authors show various aspects of the occurrence of water as a utilitarian factor and an element of culture. The above-mentioned regions developed many architectural solutions serving the purpose of safe storage of water or protection against its harmful impact. These publications focus on historical solutions, however, they are also concerned with the 20th-century architecture (for instance Chandigarh located in the north of India).

Water in both contemporary and historic architecture is described by **Wylson A.** (1986) in

[13] ***Feng shui*** (*wind and water*) – an ancient Chinese method of space arrangement with the purpose of obtaining harmony with the world. The method was described by Guo Pu living between the years 276 and 324, the quotation from the translation by Field S.L. (2009), *The Zangshu, or Book of Burial*.

the publication *Aquatecture: Architecture and the Water*. The author of the above-mentioned publication distinguishes water as a religious and cultural context for the historic building development in different regions of the world. He also emphasizes an ecological role of water as well as visual effects. The publication raises the issues of the so-called *waterfront* on an urban-planning scale in relation to the city and post-industrial areas as well as to rivers and other water basins. The author perceives water as an environment for building historic traditional architecture as well as contemporary architecture. The book presents technical and artistic elements connected with water which are placed in the natural environment.

Waterfront[14] is a site of natural occurrence of architecture and water. The subject of the interaction of water and the city in this particular area is researched by **Januchta-Szostak A.** in the publications which were academically edited by her: *Woda w krajobrazie miasta* (Januchta-Szostak A. 2009b) and *Water in Townscape* (Januchta-Szostak A. 2009a). These titles also discuss the following issues: regeneration of urban areas connected with water, a role of rivers in the formation of the cityscape, devices of small architecture using water, formal inspirations by the element of water itself in the creation of such architecture as well as sustainable spatial planning taking into consideration phenomena occurring between water and urbanized landscape[15]. The above-mentioned publication includes an article by **Bardzińska-Bonnenberg T.** (2009) *Water – the Status Symbol within the Cities and Architecture* which presents water as a status symbol on the urban-planning and architectonic scales. The use of rain water in urban devices and decorations was presented as an aquatic culture in the chapter *Aquatic Culture in Sustainable Town Planning*. Threats to the buildings located at the *waterfront* were described in the publication by **Williams E.** (2009) entitled *Aquatecture – Architectural Adaptation to Rising Sea Levels*. This title discusses risks of living and building in the areas that might be affected by the rising water levels. The content includes deliberations on urban-planning designing and community relations.

Natural disasters connected with water and its destructible force affect the building development in the adjacent areas in the economical, technical and emotional scope. Floods, flooding of the reclaimed and developed environment including the built environment cannot be completely prevented due to the cost, the condition of the environment and landform features. As a result, emotions connected with this natural phenomenon will always accompany the architect in the process of designing some architecture in the vicinity of water, as was pointed out by **Kostrzewski A.** (2002).

The significance of water in architecture has been a frequent subject of interest among authors since the 1960s. The social and cultural role of water was described by **Ninck M.** (1967) and then by **Böhme G.** and **Böhme H.** (1996), **Altman N.** (2002) and **Verma A.** (2008). These authors find spiritual, mystic and symbolic elements in water which have impact on architecture. A large-scale research on the meanings of water and its applications in architecture was conducted by **Moore C.** and **Lidz J.** (1994) in the publication *Water and Architecture*. These authors bring up issues of cultural meanings, metaphysical associations as well as contemporary perception by the multi-cultural society. In *Poetic Water Images in Architecture*. **Kirschner U.** (2006) presented how water in its mobility and different states of matter inspired many architects to create

[14] The use of the word *waterfront* has become widespread in publications concerning the relationship of cities and water by joining English words *water* and *front*; this term perfectly reflects the subject matter of the shore or riverside building development - facing the water or located only in the vicinity of natural water basins or permanent flows. That is why the author of this elaboration has decided to use this term as commonly known without providing any further explanations.

[15] The interest in building in the city centres is one of the possibilities contributing to the development of aquatic architecture which cold be taken into consideration in the SWOT analysis.

spectacular designs. The book searches for analogies of designing and symbols of water in different cultures. The publication includes analyses which show contemporary interactions between nature, represented here by water, and architectural expression.

Nyka L. (2013) investigates the borderlines between a building and water in a real sense but also in an emotional and cultural sense in the publication entitled *Architecture and Water – Crossing the Borderline (Architektura i woda – przekraczanie granic)*. The author describes water and architecture in the context of historical relationships, mainly in urban planning, with relation to the subject of the river in the city as well as artificial water tanks built in the urban tissue. On an architectural scale, the author highlights the presence of water in the building's interior as an artistic and compositional element. The publication also emphasizes the crossing of the borderline of land and water in architectural implementations. A considerable part of the above-mentioned publication focuses on the application of water in the formation of urban space by taking advantage of the existing natural flows or by creating artificial water basins.

Conferences, exhibitions and experiments

Current interests of contemporary professional artists, designers and researchers in the issues of the co-existence of architecture and water may be traced on the basis of topics of conferences, competitions and exhibitions. These are dynamic activities connected with an active exchange of ideas and opinions. A chronological review shows growing intensification of such activities.

Traditionally, the turn of centuries is a period enhancing the creation of visions and construction of the world of the future. In the years 2000 and 2001, an undertaking took place which suggested the direction of pursuits and conceptual deliberations on the architecture of the future. It was namely an international architectural contest organized by the UIA[16]. The competition was open both to professional architects and students of architecture. The subject of the experiments and research was *Architecture and Water*. The contest was held under the auspices of the UNESCO[17]. Eight hundred and fifty participants from sixty-three countries took part in it. The organizers aimed to show[18] that water and its forms have the power to stimulate architects' creativity. This objective was fulfilled by collecting ideas concerning the solutions of current and future problems. A big emphasis was laid on planning without the pollution of lakes, rivers and seas, ensuring proper management of water resources and introducing the technology of water purification and retention.

The organizers' aim was to show water as an ideal medium common for many cultures. Taking into consideration the diversity of architecture connected with water, the competition was to bring solutions on micro and macro scales in real-life or imaginary locations. The organizers expected the creation of innovative aesthetic propositions that would have direct relationships with water. Grand Prix was given to Omar Mohammed Kamal Rabie from Egypt. The jury appreciated a highly symbolic aspect of his work. In the jury's opinion, 'it illustrated the expanse of the subject of architecture and water. In the presented reflections, its author undertook the topic of a spiritual source of architecture and human possibilities in the interpretation of the world. The design of this

[16] UIA – International Union of Architects
[17] United Nations Educational, Scientific and Cultural Organization
[18] On the basis of the contest programme: *International Ideas Competition open to architects and students of arhitecture*. Organized by the UIA under the auspises of the UNESCO, announced in May 2000.

architectural object refers to the creation of the world, calls for the harmony among religions and builds bridges over the storms of civilizations. Thorough philosophical background is illustrated by means of architectural details showing contemporary constructional, technical and aesthetic capabilities'[19].

The architect Wolf Tochtermann – one of the jurors of the competition – writes, among other things, that life-giving water and perilous water are two characteristic aspects of the relationship between water and mankind. Water determines the way of human living, dwelling and activities. Many towns, villages and hamlets exist only thanks to water upon which their growth and development depend. The pursuit of water or fighting its mighty power have a great impact on investments. Accessibility of pure water is a decisive factor as far as health is concerned, whereas floods pose a danger to human beings. Engineers' and architects' skills and expertise provide the cities with water and protect them against ill effects. Water has always had a great influence on the civilization. The competition that was held proved that 'water writes history' and plays a symbolic and purifying role[20].

The above-mentioned competition held at the turn of centuries under the auspices of mighty and respectable organizations resulted in further activities in the scope of the subject of water and architecture all over the world. The *International Competition for the Kaohsiung Waterfront renovation project* was organized in Taiwan. The city of Kaohsiung is in a transformation phase, therefore the authorities in co-operation with the management board of the harbour are planning to convert this industrial town into 'the Ocean Capital'[21]. Another event connected with the emphasis put on the relationship between water and architecture was a biennial exhibition under the title *AquaTectur Architecture and Water – Water houses – Houses beside, around, in and of water*[22]. The title itself already reveals the struggle with the very name for this kind of architecture built in a close relation to water. The biennial event gathered collections of designs and sketches representing various approaches of international architects to the subject of water and architecture itself. The presented propositions revealed a wide spectrum of solutions, from conceptual to very practical ones. The subjects of individual designs could have been influenced by the fact that the exhibition was organized by a well-known company manufacturing bathroom fittings. The event was held in September and October 2004 in Venice and its effects show that water in architecture has many meanings.

At the turn of 2002 and 2003, the San Francisco Museum of Modern Art held an exhibition *Architecture of Water*. Five renowned international design studios presented their solutions in the scope of architecture conditioned by water. The following designers presented their works: Foreign Office Architects, MVRDV, Diller + Scoffidio, Steven Hall Architects together with Michael Van Valkenburgh Associates, Alsop Architects. The developed designs integrated architecture, landscape and infrastructure as well as the so-called waterfront area. The participants showed innovative approaches and verified relations between water and the built environment[23]. Earlier, from April to October 2001, the same works had been exhibited at Van Alen Institute, and then from February to May 2002 at Heinz Architectural Center[24].

The subject of water and architecture is particularly developed and given focus in harbour

[19] On the basis of the description of the award-winning work acc. to Hempel A.G. UIA vice-President, Jury Member.
[20] Ibidem.
[21] On the basis of http://vision.kcg.gov.tw as of 12.09.2006.
[22] Source of information: www.labiennale.org/en/architecture/metamorph/metaevents.html as of 25.02.2009.
[23] Source of information: www.sfmoma.org/exhibitions/exhib_detail.asp?id=94 as of 02.03.2009.
[24] Source of information: www.ltwork.net/aw3.html as of 05.01.2009.

cities. An exhibition entitled *Harbour Shop* was organized in Gardini di Castello in September and October 2004. It presented the issues of Danish harbour landscape[25]. In Rotterdam, the Second International Biennial under the title *The Flood* was held in 2005. During many months of discussions and deliberations, Dutch architects and urban planners brought up various aspects of the relations of water and architecture. The Netherlands is particularly entitled to conduct such discussions as more than a half of the country is made up by the areas reclaimed from the sea and hence located in depression. The main purpose of the Biennial was to move the focus in the discussion about the water in the environment from climate issues to architectural issues. The exposition was divided into three parts: Water Cities, Our Sea (*Mare Nostrum*[26]) and Polders. The exhibition *Water Cities* presented mainly the struggle of the Dutch with water over the centuries. However, one of the most interesting references was an idealistic concept of *Plan Obus* in Algiers created by Le Corbusier in the 1930s (**Curtis W.** 2006). This concept, which was formulated almost one hundred years ago, became an inspiration for many contemporary experiments. Futuristic designs were accompanied by practical attempts of solving the problem of the river rising. The exposition *Mare Nostrum* referred to marine economy and development of tourist industry on the borderline of land and water. The issue of polders was closely connected with the location of the exhibition. Contemporary Dutch landscape is at risk. The rising sea level poses a threat to exclude a considerable part of the existing polders which had been reclaimed from the sea. Economic considerations were concerned with the profitability of maintaining the existing polders with a view to climatic changes or the construction of new ones (**Konrad M.** 2005).

The University of Agriculture in the city of Szczecin has organized a scientific conference the Forum of Landscape Architecture since 1998. In the year 2006 the subject of the conference was *Water in Landscape*[27]. It discussed the issues and possibilities connected with the potential water brings into shaping space and landscape. The issues were concerned with architecture, landscape architecture, spatial management, ecology and geography. The discussions encompassed tendencies, designs, studies and theoretical investigations.

In 2006 there were announcements of attempts to design and build underwater hotels[28]. They were supposed to be financed by limitless financial resources of Arab sheikhs and American multimillionaires. Some designs of such underwater structures were created. One of them is *Poseidon Resort*[29] designed by Bruce Jones – the chairman of the US Submarines, a company dealing with the construction of underwater 'toys for the rich and the famous'. Another design was called *Hydropolis*[30] and was proposed by Joachim Hauser. Both designs have something in common – they have never been implemented[31]. The reason for that could be found in the improper preparation of the investment, misconceived notions of limitless financial resources[32] as well as the lack of knowledge of underwater building engineering. Worldwide economic tendencies, being reflected in bank, market and petrol crises, have influence on the global

[25] Ibidem.
[26] Term *mare nostrum* was used by ancient Greeks and Romans in reference to the Mediterranean Sea (**Lowe C.J.** (2002), **Tellegen-Couperus O.** (1993).
[27] Source: www.ar.szczecin.pl as of 10.03.2006.
[28] Development of tourism and recreation is one of the possibilities of growth which could be considered in the SWOT analysis.
[29] Source: www.popsci.com/popsci/technology/ddd2b2590077f010vgnvcm1000004eecbccdrcrd.html as of 15.05.2009.
[30] Acc. to SPG Media Limited a subsidiary of SPG Media Group PLC.
[31] http://www.underwhdubai.com/ as of 28.06.2015, http://www.poseidonresorts.com/ as of 15.07.2015.
[32] A high cost of investment is one of the weaknesses which could be taken into consideration by the SWOT analysis.

development of architecture, including aquatic architecture[33]. Up to this day we have heard about the so-called designs of underwater objects[34] in the media. The conceptions of underwater space in such designs originate more from Hollywood film productions rather than real-life experience and expertise. Limited visibility and pressure are not taken into consideration. Such an approach to designing is most probably always doomed to fail and never result in implementation.

Hurricane 'Katrina'[35] which wreaked havoc on New Orleans and the flood which followed caused a discussion concerning the re-building of the city. In order to do that designs were prepared by the most famous architects in 2006. Those designs became later the subject of an exhibition[36]. The presented propositions went far beyond standard plans of re-building the city. The designers showed the architecture of the future in the proposed solutions. The participants included MVRDV, UN Studio, West 8 from the Netherlands as well as Morphosis from California, USA. The exhibition showed close relationships between architects from the NAI[37] with the New Orleans's Tulane University (with the leading figure of Dean Reed Kroloff). The confrontation of the Dutch experience of living below the sea level and a constant threat of being flooded with the issue of re-building the flooded city resulted in many daring architectural solutions. The exposition of works took place at the NAI in Rotterdam.

The years of 2006 and 2007 witnessed the presentations of ice buildings. One of them was *Snow Castle* in Kemi, Finland. This hotel facility was visited by 300 000 guests. The building includes a hotel, chapel and restaurant. Another design of a hotel facility made of ice is *Snow Hotel* in Jukkasjarvi in Sweden. It was the first of the ice hotels and its concept goes back to the 1990s. Similar facilities are built in Canada, Norway and even in the mountains of Romania. Ice buildings have become a part of the human-built environment and an element of economy[38].

In February 2009, the Poznań University of Technology held the International Scientific Conference entitled *Water in the Townscape,* which was organized by the Faculty of Architecture. The meeting made it possible to exchange opinions and knowledge at different levels of planning and designing. The conference discussed the impact of water elements on the city or town landscape, its symbolics, aesthetic values as well as psychological, technical and technological qualities. Designing issues were confronted with both strategic planning and architectural details. The discussed subject matter could be divided into three areas: regeneration of urban waterfront areas, a role of water in shaping the city's public space, aquatic culture in architecture and

[33] This feature could be considered to be a threat in the SWOT analysis.

[34] In May 2015, a TVN television programme presented a Polish architect who was discussing an idea of the construction of underwater tennis courts at 'a relatively small depth of 30m' – obviously paid for by the sheikhs. The dome covering was to be made from a transparent material. If inside there was to be the atmospheric pressure, then the pressure of water would amount to around 30 tons per each square metre. It should be reminded here that loads exerted on building structures on dry land usually equal from 75 to 250 or 300 kg/m^2. If inside the dome there was to be the pressure equal to the ambient pressure, a human being would have to breathe gases under a pressure of approx. 4 atm. Due to this fact, staying in such a place would have to be limited to a dozen or so minutes, otherwise people should breathe special gas mixtures whose production for such a cubature is economically impossible. Underwater implementations will remain pipe dreams until the solutions of accessibility from a human physiology perspective are found and the knowledge of this alien underwater environment is extended. Naivety and the lack of competence are the greatest enemies of progress. The lack of technical knowledge exhibited by visionaries is one of the weaknesses which could be included in the SWOT analysis.

[35] Natural disasters and greenhouse effect are threats could be included in the SWOT analysis [author's remark].

[36] Stone S., Post-Flood Architecture Building New Orleans 2.0 Source: http://www.spiegel.de/international/post-flood-architecture-building-new-orleans-2-0-a-403122.html as of 29.06.2015.

[37] NAI Netherlands Architecture Institute; source: www.nai.nl as of 12.05.2015.

[38] Source: www.icehotel.com, as of 07.08.2015, www.chenahotsprings.com/icehotel.html, as of 07.08.2015, www.snowcastle.net, www. snowvillage.fi as of 15.07.2015.

sustainable planning (**Januchta-Szostak A.** 2009).

On 28 February 2014, at the UC Berkeley College of Environmental Design there was a conference *City + Water International Perspectives*. One of the most interesting facts of this exhibition is a direct reference to the issues of water and architecture described in a publication in the year 1994. The author of this inspirational work was Charles Moore. Twenty years after the publication of his book *Water and Architecture* new designers undertook the previously described subject matter. Sessions and meetings were supplemented by around twenty-eight designing presentations. The design subjects brought up the issues of ecology, symbolics, plastic arts and structure, technique, protection of water purity and protection of land surface. The solutions of the co-existence of water and contemporary architecture encompassed: restriction of a harmful impact of water, protection against floods and management of rivers with a view to food production. The issues were divided into thematic groups, such as oceans, rivers and architecture; water and city; water, infrastructure and architecture; water, landscape and architecture[39]. The presented designs constitute the continuation of the directions of immaterial inspiration by water in the processes of shaping space presented in Charles Moore's work. Moreover, they also anticipate some practical solutions aiming to create new reality. Nonetheless, the presentations contain ideas that can be qualified rather as conceptual categories. Their authors did not pay much attention to the feasibility of their implementations.

Between 7 and 20 September 2015, in Pietrasanta in Italy, there were workshops held under the title: *The City and The Water*[40]. The subject matter included a case study of a post-industrial area called *Due Laghi*. This area constitutes a context of a high environmental value and a great economical potential. The activities aimed to define the scope of changes on different scales, from an urban planning scale to architectural one. The issues of amphibious architecture, i.e. existing both in the water and land environments, depending on the water level, constituted the subject of a conference in Bangkok[41], which took place when the author was finishing to write this monograph. The above-presented long list of conferences, exhibitions and competitions taking place in recent years shows that the subject of the relationship between water and architecture is current and is gaining momentum.

Specification of the role of water in architecture provided by contemporary authors

Investigations of the relations of water and the built environment are concerned with architectural and urban planning issues or the role of water in historic buildings or facilities. Examples of historic architecture equipped with a great number of decorations have an impressive emotional charge. The decorativeness of historic architecture makes it possible to read meanings and the creator's message. Contemporary architecture, which is deprived of ornaments and strives for rationalization rooted in functionalistic theories, is more difficult to relate to associations and inspirations. Forms and spatial structures in contemporary architecture are seemingly deprived of emotions and far from creating any associations. However, contemporary designers having great technical capabilities build emotions in a different way to their predecessors.

[39] Source of information: http://ced.berkeley.edu/research/water-and-architecture/ as of 01.06.2015.
[40] Source of information: http://www.destec.unipi.it/thecityandthewater/ as of 03.06.2015.
[41] http://www.icaade2015.com/.

The impact of water basins and reservoirs on the tissue of the city cannot be underestimated in urban planning. Elaborations concerning urban structures highlight the relationships of water and architecture. They also include carefully thought-out suggestions referring to the relations between water and architecture. Taking into consideration the above-mentioned aspects, the author's pursuit for the role of water in contemporary architecture will be based on publications concerning urban planning, historic architecture and contemporary designing solutions.

Niemczyk E. (2002a) in the elaboration entitled *Four Elements in Architecture - Cztery żywioły w architekturze* deals mainly with historic architecture. What might be important for the purpose of this research on contemporary architecture is a determined 'application'[42] of water in architecture. Water is described here as an artistic form, a symbol, an instrumental motif. The role of water as an **artistic form** refers to optical properties consisting in the reflection of light and 'filling the water with alien shapes'. Water as a **symbol** signifies transformation and is equated with rebirth but also purification. This role of water in architecture reflects religious beliefs which have been shaped in many civilizations. An **instrumental** role of water concerns its application in the cooling of interiors, its use for hygienic purposes and to quench thirst. All these meanings created their counterparts in architectural forms. The above-mentioned elaboration ascribes the following functions to water[43]: utilitarian, compositional and aesthetic as well as symbolic. According to the above-mentioned author, the **utilitarian** function refers to transportation, air-conditioning, satisfying hygienic and physiological needs. The **compositional and aesthetic** function regards visual and acoustic effects, stimulation of reflections in the recipient and contemplation. The **symbolic** function includes cultural meanings, a metaphor of revival, purification and a contact with nature.

Boeminghaus S. (1980) in *Wasser im Stadtbild. Brunen, Objekte, Anlagen* writes about a special aspect of water as a **material** having a great influence on the shaping of the urban **environment**. Water in this facet represents natural elements in the artificial landscape of cities.

Wylson A. (1986) in *Aquatecture: Architecture and the Water* classifies the relations of water and architecture as a spatial context of cultural traditions, water attractions facilities, visual effects as well as water-life environment and an ecological factor. These meanings are shown both on an urban scale and architectural one. The **cultural** significance of water is emphasized, especially in the case of the civilizations of the Classical World, Islam and the Far East. The elaboration shows water as the **environment** of creating architecture in urban planning solutions beginning from the classical period, through European cities, to contemporary American cities. The context of both the river and the sea constitutes the area of implementations of the presented methods. Recreational centres, promenades, piers and water parks are closely connected with water in their architectural solutions. On an architectural scale, the water environment is characterized by **spatial forms** serving the purpose of water management and highlighting the **artistic properties** of water. The construction of water management machines or using water in water parks or other attractions lead to the creation of water spaces. Such places feature the accumulation of objects using water as a function determinant. These facilities include: open-air and indoor swimming pools, water parks, yacht marinas, etc.

Pancewicz A. (2002) in the publication *Rivers in Urban Space - Rzeki w przestrzeni miejskiej* describes relations of the riverside urban spaces in the following aspects: technical and

[42] Niemczyk E. (2002a), p. 63.
[43] Ibidem, p. 151.

environmental, spatial and functional as well as social and cultural. He categorizes the following issues as the **technical-environmental** relations: river treatment, environmental protection and harmonious landscaping, transport, power production, urban management and development as well as flood protection. The **spatial-functional** relations encompass: river regulation, scenery composition, regeneration of urban tissue and recreational areas, which are connected with the formation of the **social-cultural** relations satisfying the needs and aspirations of prestigious riverside cities.

Moore C. (1994) in *Water and Architecture* shows the role of water connected with meaning, mythic, symbolic and communicative roles, combining different types of emotions and sensations. This publication focuses on an immaterial and **symbolic** or **semantic** role of water in the formation of an image of an architectural work. The elaboration presents the appearance of this material and its ***plastic art*** which influence the observer's emotions.

Nyka L. (2013) in *Architecture and Water – Crossing the Borderline Architektura i woda – przekraczanie granic* presents water as a means of artistic expression. The role of water is defined as a means of *conveying architectural ideas* or a natural reference to the **natural environment** or **landscape**. He highlights water as an element creating the atmosphere of the interior as a result of **material and artistic** means as well as **physical and technical** parameters, giving as an example the thermal baths Therme Vals designed by Peter Zumthor. This publication pays attention to the ***location*** of architectural buildings and facilities in relation to water. It describes the principles '**on the water and on the shore**', on the so-called *waterfront*, as well as the formation of new water basins or reservoirs.

Januchta-Szostak A. (2009a and 2009b) in *Woda w krajobrazie miasta - Water in the Townscape* shows water as an aquatic element in **sustainable planning**. The author enumerates different solutions of rain water retention as an element of **spatial composition**; she treats water as a plane or a solid. She mentions also **oceanographic** research. The basic role of water indicated in this publication is the impact of the river on the urban planning of the city by means of shaping the area **on the riverside,** in the so-called waterfront. She also emphasizes a **symbolic** dimension of water in architecture referring to the highlighting of space status in urban planning. Application of physical and ***technical*** properties of water is discussed in energy- and cost-efficient solutions. Similarly, the publication *Water in the Urban Public Space. Model Forms of Rainwater and Surface Water Management. - Woda w miejskiej przestrzeni publicznej. Modelowe formy zagospodarowania wód opadowych i powierzchniowych* **Januchta-Szostak A.** (2011) points out to **ecological** functions of water in the spatial development of the city.

Myga-Piątek U. (2003) in *Water in Environmental and Cultural Space - Woda w przestrzeni przyrodniczej i kulturowej* describes the role of water as *utilitarian* and **cultural** in the landscaping of gardens as an element of **recreation and scenery**. The publication also mentions a ***compositional*** role of water in urban planning.

Fratino U., Petrillo A., Petruccioli A., Stella M. (2002) in *Landscapes of Water. History, Innovation and Sustainable Design* present water first of all as a factor affecting ***proecological*** solutions in the field of architecture and urban planning.

Crafti S. (2005) in *H_2O architecture* defines water as a **symbol** of luxury, an element of a spatial ***composition***, determining a **function** of an architectural object. Some solutions present recreational functions in the building, others constitute decorations and a specific design of the interior. The publication shows the solutions of swimming pools in residential architecture in single-family houses. They were applied as **recreation**, a spatial, compositional and stately element.

Burchard C., Flesche F. (2005) in *Water House* describe objects built in the water environment. In such objects, water is the element of the design which decides about the ***aesthetics*** of an object and constitutes its life **space**. The publication points out to the facilities built from **ice and snow** material as a type of aquatic architecture. A general division introduced in this literature is as follows: architecture **standing in the water**, **floating on the water** and **underwater structures**. The authors also mention the **cultural** role defining water as a carrier of myths and beliefs, also as a **symbol** and a religious medium. **Dreiseitl H., Grau D.** (2005) in *New Waterscapes* define the role of water in both external and internal **scenery** of a building. Moreover, they indicate the application of water in **air-conditioning** in office buildings as well as in services and commercial facilities. **Ecological** approach is represented in the scope of rainwater application. The management of water on an architectural and urban planning scale is defined as **water culture**. **Artistic effects** as well as water management solutions are emphasized in the presented implementations.

It can be noticed that the analysis of the subject matter connected with the occurrence of water in the human-built environment is to a great extent devoted to urban planning (**Canogar S.** 2002, **Drevet C.** 2002, **Osty J.** 2002) or the prevention of flooding and the regulation of river banks (**Hannetel P.** 2002, **Persson A.** 2002, **Tilman H.** 2002). Some technical and artistic aspects of the relation of water and architecture are described by **Dreiseitl H., Grau D.** (2005) in their publication *New Waterscapes*. The described implementations regard spatial planning and landscape but also residential, commercial and industrial buildings (the so-called 'cubature buildings') and the so-called small architecture. Various purposes and spatial solutions of swimming pools are presented by **Plannells P.** (2003) in the publication *The Pools*. Typology of pools and architectural effects resulting from certain technical solutions connected with water management in architecture are presented in the following publications: **Kuc S.** (2013) in *Infinity Pools - Selected Examples – Baseny typu infinity - wybrane przykłady* or **Canizares A.** (2006) in an illustrated publication *Infinity Pools.*

Brito J., **Szymaniak J.** (2009) in *Forgotten Oceanographic Exploration on the Green Cape Islands - Zapomniane badania oceanograficzne na Wyspach Zielonego Przylądka*[44] mention the exploration and research of underwater space of an oceanographic character in the second half of the 20th century conducted, among other explorers, by Jacques Cousteau. Objects implemented under water are more associated with underwater vehicles and mechanical devices rather than with architecture. However, it can be noticed that recent publications have started to see the possibilities of implementation of architectural facilities under water.

[44] Januchta-Szostak A. (2009b) (Editor), *Water in the Townscape - Woda w krajobrazie miasta*…, p. 56.

Chapter 2. INVESTIGATIONS

Research area

Work methods and scope of research

Object research sheet

Results of case research on aquatic architecture

Discussion of results

2.1. Research area

Collective elaborations on the subject of water in architecture include the following publications: *Reflections on the Pool* (**Baldon C., Melchior I. & Levick, M.** 1997), *Water House* (**Burchard C., Flesche F.** 2005), *Bridges.* **Perino A.S., Faraggiana G.** (2004), *Wasser, Water* (**Schäfer R.** 2002), *Water, Wasser, Eau* (**Fischer J.** 2008), in which the authors write about a set of creative implementations connected with water. The authors provide the readers with illustrations, expert descriptions and commentaries.

Own research was conducted by the author of this monograph in the scope of relations between contemporary architecture and water as a material having three forms. This issue was mentioned by the most famous architects in their publications: **Zumthor P**. (2005) in *Atmospheres* or interviews for 'Architecture and Business' - 'Architektura i Biznes' (**Stec B.** 2003), **Kuma K.** (2008) in *Anti-Obiekt*, **Koolhaas R.** (2011) in *Project Japan Metabolism Talks*, **Ando T.** (1991) in *New Horizons in Architecture*, **Le Corbusier** (1925), being the precursor of contemporary architecture, in *Le peintiure moderne*. Architects, such as **Hadid Z.**, **Holl S.**, **Izosaki A.**, also spoke on the subject of water and architecture within the framework of the publication *The Snow Show* (**Fung L.** 2005). The investigations presented hereby in this monograph do not refer to the relations of water on an urban planning scale or in a historical context, which has been previously described in detail by other authors.

On the grounds of the above-mentioned elaborations, the author of this monograph noticed that the subject matter of the role of water in architecture **requires systematization**. The impact of water on architectural designing in material and emotional spheres may constitute the basis for this research. Against this background, attempts may be made to define a group of issues connected with the architecture formed under the influence of water. It seems that **the potential** connected with new research areas **has not been discovered yet**. Furthermore, what requires definition is the obstacles in creation of aquatic architecture and preparation to overcoming them.

Terms referring to the relationship between water and architecture are diverse. Various authors perceive them as: meaning, role, impact. This monograph proposes to determine the role of water in architectural creation on the basis of its **function**. Table 2 presents different meanings of water in architecture used and defined by contemporary authors of publications, which were grouped as four functions. It is the function of water in architecture that has been adopted as a common denominator of the research on contemporary aquatic architecture. Its definition is the basis for the proposed method of qualification of objects for the set of aquatic architecture. It is also a tool to determine new areas of implementation and their conditions, which is the aim of the research conducted by the author. The performed analyses and own research introduce systematics into the set of objects of contemporary aquatic architecture on the basis of the determined functions of water in the functional and spatial structure. A different novel approach to the issue of water and architecture relationship contained in this monograph shows the most important specific conditions of the implementation of buildings and facilities under water in order to create a new area of the built environment.

Table 2

Determination of functions of water in architecture

on the basis of descriptions of the role of water found in literature [author's own study]

Wyznaczenie funkcji wody w architekturze na podstawie określeń roli wody podawanych w literaturze [opracowanie autora]

Role of water acc. to contemporary subject literature	Researchers – Authors											**Functions**			
	Niemczyk E.	Boeminghaus S.	Wylson A..	Pancewicz A.	Moore C.	Nyka L.	Januchta-Szostak A..	Myga-Piątek U.	Crafti S.	Burchard C.	Dreiseitl H.	**Architectural material**	**Determining purpose**	**Artistic Inspiration**	**Environment**
Artistic form, plastic arts	1		1		1	1					1	1		1	
Symbol	1				1		1		1					1	
Instrumental	1											1			
Functional									1				1		
Utility	1							1					1		
Composition and aesthetics	1						1	1	1			1			
Aesthetic										1		1			
Material		1				1						1			
Ice and snow										1		1			
Environment		1	1			1									1
Cultural			1					1			1			1	
Spatial form			1									1			
Technological and environmental				1								1			
Spatial and functional				1									1		
Social and cultural				1										1	
Ecological								1			1	1			
Semantic					1									1	
Air-conditioning											1		1		
Ideological						1								1	
Internal and external scenery						1		1							1
Technical						1	1					1			
Floating											1				1
Location						1									1
Living space										1					1
On the water						1									1
Setting in the water											1				1
On the shore/bank and waterfront						1	1								1
Element of sustainable planning							1								1
Oceanographic							1								1
Recreational								1	1				1		

2.2. Work methods and scope of research

The following course of proceedings was adopted: data collection– analysis – classification – synthesis. The investigations in the scope of contemporary architecture and water were conducted approximately between the years 2002 and 2015. The following methods were applied:

- Analysis of the subject literature (initial studies); definition of significance of the undertaken topic based on the statistical interpretation of a set of objects presented in *The Phaidon Atlas of Contemporary World Architecture*, being a representative selection of contemporary architecture. The research encompassed 1052 objects of contemporary architecture. **An expert**[45] **subjective method** of an object assessment was applied. The question that was answered was: Did the object show any features of formation under the influence of the relationship between architecture and water? The participation (percentage) of aquatic objects in the set of contemporary architectural works was calculated in Chapter 1.
- Own investigations (Part 1) were conducted on 609 objects of contemporary architecture. The cases were selected on the basis of available literature and information placed on the Internet as well as *in situ* observations. The observations and information on the objects, which were described in literature and built in reality, were catalogued. A method of observation by means of prepared investigation sheets was applied in this phase of research.

The scope of investigations encompasses objects or designs which were made between 1985–2015. These were objects published in literature or built in reality for which author's or expert's descriptions were made available. It was assumed that a period of the past 35 years adequately represents contemporary architecture. In order to do the research on contemporary architecture in the context of issues connected with water, the following aspects were considered: cultural, semantic, technical, functional, environmental and other aspects related to the occurrence of water in the living environment of human beings.

Descriptions in the printed publications and on the Internet websites constituted the source of information on the objects. Only author's or expert's descriptions placed on individual websites were taken into consideration. A part of the group of objects comes from own observations.

During many years of research 752 objects of an aquatic character were catalogued. The classification was performed subjectively on the basis of recognized features, which were recorded on the observation sheets. The list of all objects excluded objects made before 1985 in compliance with the adopted scope of investigations on modern architecture, namely the past 30 years. During the studies, 66 older objects were recorded. The set excluded also a group of objects which did not have sufficient information to confirm the observed features. These were most often illustrations with no captions or the lack of confirmation of certain images in the second source (for instance on the Internet). The number of objects excluded from the research due to incompleteness of information amounted to 70. Also, 3 objects were excluded due to the fact that they had been implemented before the year 1985 and in addition their data were incomplete. In this way, after the

[45] The role and aim of expert studies in such cases were presented by **Niezabitowska E.D.** (2014) in: *Research Methods and Techniques in Architecture - Metody i techniki badawcze w architekturze*…, pp. 161-163.

elimination of the sheets of objects without complete information and objects implemented before 1985, the number of the aquatic architectural objects subject to investigations amounted to 609 pieces.

No selection key of choosing the examples was imposed. The analysis encompassed objects showing aquatic qualities which were implemented after 1985 or published within 13 years of conducting this research. The investigations did not obviously include all objects that could satisfy the selected criteria. Due to the fact of limitless selection of elements, the created set represents all key features characteristic of contemporary aquatic architecture. This method of data selection makes it possible to assume that the research was conducted on a large scale and is representative for the aquatic objects published in the selected period. A big number of analyzed examples ensures that no significant features of the topic were omitted. Possible accidental cases of false categorization do not influence the results. Therefore, it is justified to provide some quantitative data concerning the frequency of occurrence of the investigated features (**Pabis S.** 1995).

2.3. Object research sheet

In order to conduct qualitative studies, an observation sheet was created for each case. It was called **an object research sheet** or **sheet** and served the purpose of the description of the analyzed features of an object within the framework of the conducted research on the role of water in architecture. The card shows a function water plays in a given object as well as the location of the object in relation to water.

740 [1]	data and description	[12] formal references	[13] cultural references	[14] ref. to science and env.	[15] sport-recreation	[16] transportation	[17] science	[18] therapy	[19] material	[20] decoration	[21] tech. and ecology	[22] on land	[23] on the shore	[24] located over the water	[25] floating	[26] under the water	[27] technical challenge	[28] engineering bldg.	[29] residential	[30] public utility	[31] office and industry	[32] implemented	[33] concept	[34] experiment
Object [2]																								
Location [3]																								
Author [4]																								
Illustration [5]																								
Creation date [6]																								
Purpose [7]																								
Impact of water [8]																								
Relation to water [9]																								
Implement. phase [10]																								
Source [11]																								

Fig. 4. A template of an Object Research Sheet [author's own study]

Wzór karty badań obiektu [opracowanie autora]

The Object Research Sheet is divided into two parts. On the left, it shows basic data of a design as well as it describes analyzed variables. This is an observation part of the sheet. On the right side, in columns from 12 to 35, the classified data from the left side are placed in the form of a table. Such juxtaposition facilitates counting the occurrence of features for the purpose of further analyses. The right-hand side is of an arithmetic character. All observation sheets are made in an Excel sheet, in which all calculations were made.

The **observation** part of the sheet includes:

1. Number[46] of an analyzed object.

It is author's own numerical order which organizes observations.

2. Name of an object or its purpose.

In the case when an object has already got a name given by its designer, user or public opinion, such a name has been provided. If there is no name, the purpose of the object has been defined as well as its location.

3. Location.

A place/town of the design or implementation of the object was provided. In the case of objects which do not have a specified location, this parameter was provided in a descriptive form (eg. the Pacific Ocean) or an empty box was left.

4. Author.

This field includes the name of the designer or designing office which designed a particular object.

5. Illustration.

[46] There are references to Object Research Sheets also in the text of the monograph; the word 'Sheet' followed by a number appears in square brackets, eg.. [Sheet 123].

This field includes the Internet address (website) where the image of a particular object is placed on the *World Wide Web* or the publication of the image in publically known and accessible literature. The date of access was 15-03-2019, if it is not shown next to the website. A real or published image constitutes a research material. The illustrations used in the study come from generally accessible sources or from the author's own archives.

6. Date of construction or designing.

It states the year of the object construction or its designing date (if the object has not been built yet) or the field is empty if the object fits in the given period of implementation, but the exact date is not known .

7. Purpose.

This line includes the description of the object function. This parameter may be defined as: a service function, home/house, housing, bridge, dam, spatial installation. Sometimes, a more detailed description is provided, such as a swimming pool or a square decoration.

8. Water functions.

On the basis of the object characteristic found in literature or presented by the author, the qualities of water having a significant impact on the formation of the object or its purpose were described. The description was provided in a brief form. The statements formulated by the observer or author constituted the values adopted by this variable. The obtained answers contained the following repetitive terms: technological challenge, cultural, symbolic, metaphysical, inspiration, functional, function indicator, attraction, raw material, medium, material, visual and plastic arts, ornament, decoration, ecology, technology, cooling agent, surroundings, environment, location, site. The above-mentioned terms served as the basis for the provision of the arithmetic function of water in contemporary architecture in the provided fields.

9. Spatial relation with water.

This part includes the definition of a way of contact between the building and the natural water environment in the form of an open-air water reservoir: river, pond, lake, sea or the lack of such dependence. This variable adopted the following values: on land, on the shore, waterfront, on the beach, above the water, on the water, floating, underwater. Taking into consideration the location of an object in relation to water, five subsets of objects were created: on land, on the shore (including the so-called *waterfront*, shore, beach), objects set on stilts in the water, floating on the water, underwater or a natural obstacle.

10. Implementation phase.

This field states if a given object was actually constructed or remained in the planning phase (then it is indicated as a concept) or was implemented as an experiment.

11. Source.

This field provides information about the origins of the analysed knowledge of a given object. This may include references to literature or Internet websites in the case of quoting authors of particular creations placed on the Internet.

Arithmetic part of the sheet

In the arithmetic part of the observation sheet the observed features were marked by placing number '1' in appropriate columns whereas an empty field was left when a given feature had not been observed[47].

[47] Observation sheets were also made for several dozens objects of aquatic architecture which were not included in the calculations and further analysis due to the failure to meet certain requirements, characteristic of a given set under

Columns 12–14 contain fields connected with inspirational impact of water on the designing process or the perception of a building. These places included the indication of buildings where water provided inspiration or caused aquatic associations. The following references were noted: to formal as well as visual and artistic features of water, cultural aspects of the presence of water in civilization (beliefs, myths, symbols, etc.), scientific knowledge of water and its environment, expression in the form of spatial installations, building structure, etc., being the visualization of the impact of water on the natural environment.

Columns 15–18 note the function of water determining the object purpose. Architectural objects play the following functions: of sport and recreation – in the case of an object built for doing water sports or water recreation, transport and circulation – when water in an object serves the purpose of circulation of dwellers or transport of the building, science – when water in an object constitutes the subject of scientific studies, therapy – when water and its therapeutical properties are the reason for building a certain object.

Columns 19–21 include the function of water as a material or raw material in subsets defining water as: a building material when a building takes advantage of the physical properties of this material; as a decoration when artistic and visual effects made by water are used in a building; eco-technological when water constitutes a factor creating the climate of the environment and the microclimate of the interior. The object uses properties of water as a physical substance as well as its ability to convey energy. These solutions contribute to the creation of individual architectural forms.

Columns 22–27 present the relations between water and building objects. Several sets have been distinguished, where: water constitutes a natural obstacle to be overcome by properly designed constructions, or the building is located on the shore of a natural reservoir, or in the water in the form of an object set on stilts fixed in the bottom, or a floating object, or possibly an underwater construction. A separate group is made up by buildings located on land without any contact with the natural water environment.

Columns 28–31 include the following architectural functions: as a civil engineering construction, multi-family or single-family housing; a service function typical of public utility buildings; industrial and office buildings including objects connected with work and manufacturing.

Columns 32–34 denote the phase of implementation of an object. It includes objects which had been built, investments whose implementation ended in the concept phase and designing experiments. The number of the presented objects which stopped in the concept phase will be the subject of an analysis and comparisons with the number of implemented objects. This set includes also designing experiments in the set of contemporary aquatic architecture, the examples which were available in selected references.

investigation. That was most often the lack of complete data or going beyond the time framework adopted in this study.

2.4. Results of case research on aquatic architecture

Research sheets of contemporary aquatic architecture include the description of features of 752 cases. The investigations looked into the items presented in literature, on the Internet and in the author's own archives. 609 sheets are quoted below. 142 were excluded from observed items due to the following reasons:

- Objects which do not fit the time assumptions, made before 1985, amounting to 67 pcs. with the following numbers:

  30, 64, 77, 87, 129, 175, 183, 187, 198, 199, 203, 207, 209, 210, 211, 212, 213, 214, 216, 238, 246, 247, 251, 252, 253, 259, 260, 264, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 347, 472, 533, 543, 564, 587, 596, 613, 616, 621, 625, 638, 665, 708, 709, 710, 711, 712, 713, 714, 715, 716,

- Objects whose data were not complete or the set of data was not reliable or did not include important information for the purpose of the problem analysis, amounting to 72 pcs. with the following numbers:

  195, 219, 229, 343, 373, 380, 408, 436, 457, 464, 465, 469, 470, 481, 486, 489, 490, 501, 509, 520, 527, 530, 545, 546, 547, 549, 551, 552, 554, 555, 595, 599, 601, 602, 603, 605, 606, 607, 610, 612, 629, 631, 644, 645, 646, 649, 656, 662, 664, 665,666, 667, 668, 669, 670, 671, 672, 673, 675, 677, 679, 680, 681, 683, 684, 685, 687, 689, 691, 692, 695, 701,

- Objects which do not fit either criteria. The data were incomplete and the construction time was beyond the analysed period, amounting to 3pcs. with the following numbers:

  620, 623, 723.

Sheets representative of the research method were selected from the whole set of research sheets and placed in Annex 1, at the end of this monograph. The list of all investigated objects can be found in Annex 2.

These investigations aimed at the general review of the subject of occurrence of water in contemporary architecture. On the basis of previous studies, the functions of water in contemporary architectural objects were defined. The research was conducted by searching for the features which indicated certain functions played by water. The analysis was performed on the grounds of drawings, models and photographs of the buildings.

In addition, the purpose of the object as well as the phase of its implementation were determined. These data will be used in the SWOT analysis conducted for aquatic architecture in the final part of the research. In the current chase, attention should be paid to considerable percentage, namely 13%, of objects which are published in the concept or experimental phase.

The investigations are based on a subjective (expert) opinion. Possible erroneous individual assessments do not affect the results due to a considerable number of cases (Pabis S. 1985). This kind of method makes it possible to draw general conclusions using arithmetical calculations and diagrams.

Table 3

Table of the results of research on the occurrence of water functions in 609 cases of contemporary aquatic architecture [author's own study]

Tabela wyników badania występowania funkcji wody w 609 przypadkach współczesnej architektury akwatycznej [opracowanie autora]

SUMMARY																								
	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
TOTAL	55	19	20	223	34	20	37	127	180	102	356	109	54	53	30	73	40	195	358	42	569	42	37
SUM of categories	94			314				409				319											
NUMBER of objects	80			267				326				272					609				609		
double	14			45				75				31											
triple				1				4				8											
WATER FUNCTIONS	inspiration			determining purpose				material				environment											

Table 3 encompasses the results divided into categories correlating with water functions, such as: inspiration, determining purpose, material and environment. Individual categories include the determined numbers taking into consideration simultaneous occurrence of several functions.

In addition to that, the occurrence of architectural functions was shown in 609 objects of aquatic architecture and the information about the phase of their implementation was included.

Table 4

Table of the results of research on the number of buildings implemented in water space in 609 cases of contemporary aquatic architecture [author's own study]

Tabela wyników badania liczebności budynków realizowanych w przestrzeni wodnej w 609 przypadkach współczesnej architektury akwatycznej [opracowanie autora]

SUM OF categories	137
NUMBER of objects	124
double	13
triple	0
in water space	

The determination of the percentage of buildings which were implemented in water space in the whole set of aquatic architecture constitutes an essential result of the investigations. The results show that approximately 20% of the buildings of aquatic architecture have been implemented in the space over water, in the water or under water. These are the signs of the occurrence of water functions in the form of environment.

2.5. Discussion of results

Analyses of the state of research and research areas showed that a set of aquatic architecture is made up by the objects where water plays certain functions. This chapter investigated such functions in 609 studied examples. In order to conduct the systematics of water functions in architecture, the following sets were created:

- function of water as **environment**; relations of building objects with the natural water environment characterized first of all by their location. The location of the facilities may result from conceptual premises, but also from the necessity to overcome a water obstacle;
- functions **determining the purpose of an object**; they can be seen in the facilities whose operation is defined by their utilitarian function. They include sports and recreation facilities as well as transport, scientific and therapeutic facilities; beginning from simple swimming pools to resorts and oceanaria;
- functions of **architectural material**; due to the development of possibilities of water applications, the knowledge of its technical parameters and the skills to use water in ecological spatial solutions, water adopts a function of a building material, decoration or energy carrier;
- functions of **artistic inspiration**; they are based on intellectual, scientific and emotional associations as well as the knowledge of water and environment. What is of significance here is the inspirations and associations born at different levels of perception.

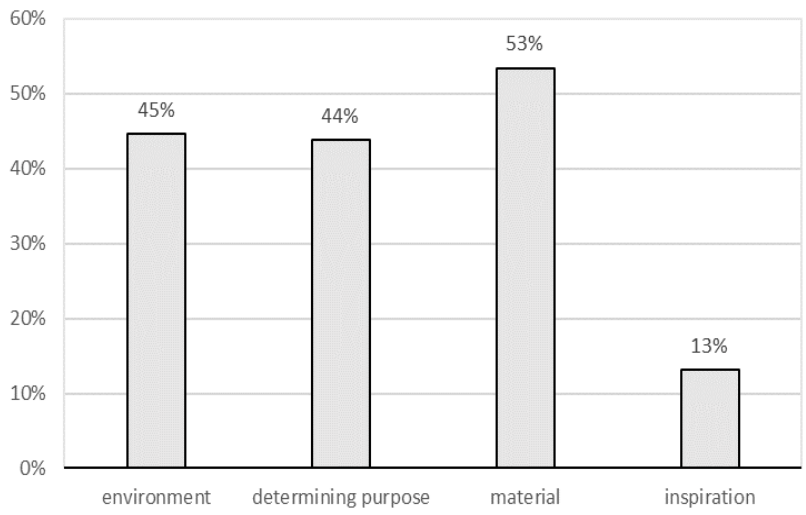

Fig. 5. Percentage of objects in which the suitable functions of water have been found among the group of 609 analyzed objects of modern aquatic architecture [own study]
Ryc. 5. Udział obiektów, w których określono odpowiednie funkcje wody w zbiorze badanych 609 obiektów współczesnej architektury akwatycznej [opracowanie autora]

Functions of water were determined in the studied objects whose character was perceived as aquatic. The analyses adopted a form of quantitative investigations. However, in the case of creation of subsets of the objects, the aspect of occurrence frequency of a given phenomenon was not as important as the fact of its existence. In order to create a subset, it is sufficient that one object represents a particular feature. Often, several functions of water were found in one architectural object, as for instance in an ecological mountain shelter[48] (**Oettl F.** 2006) [Nr 435].

Taking into consideration the observations of 609 objects, a quantitative statement was

[48] Apart from a decorative role, water in this object also plays technological functions, being a medium responsible for shaping the micro-climate of the interior.

prepared defining the scale of the occurrence of this phenomenon in the objects included in these studies. In the highest number of the facilities, namely, in as many as 327 objects (54%) – water plays the function of architectural material. Then the function determining the purpose of an object occurs in 267 cases (44%) and the environmental function takes place in 273 cases (around 45% each). The function of artistic inspiration is played by water in 80 objects (13%) among 609 selected objects of contemporary aquatic architecture.

Environment

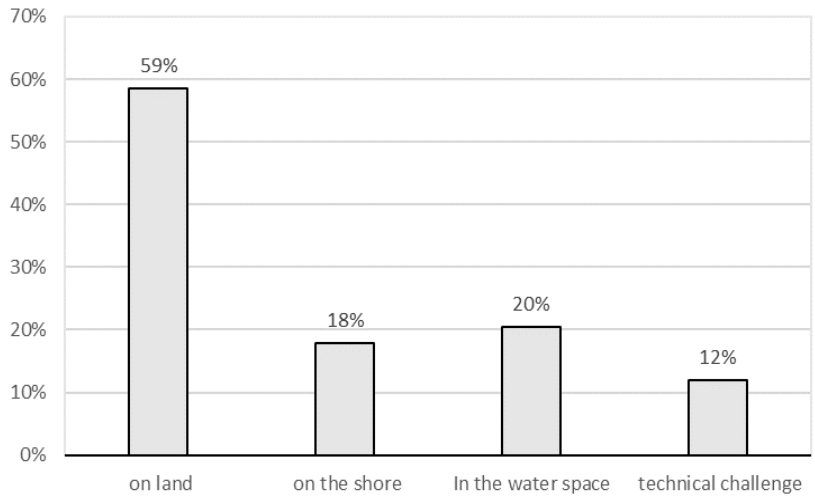

Fig. 6. Percentage of aquatic objects situated on land, and in the natural water environment, among the group of 609 analyzed objects of contemporary aquatic architecture [own study].
Ryc. 6. Udział obiektów akwatycznych usytuowanych na lądzie i w naturalnym środowisku wodnym w zbiorze badanych 609 obiektów współczesnej architektury akwatycznej [opracowanie autora]

Depending on the location of the building in relation to a natural water reservoir the following architectural objects can be distinguished: objects overcoming a **water obstacle** (12%), implementations **on the borderline of land – the so-called waterfront** (on the shore – 18%) or objects **located in the space of water** (20%). The last group includes objects set in the water on the foundations located in the bed of a water reservoir and floating objects, i.e. facilities located on the foundation floating on the surface of water as a result of hydrostatic lift, as well as underwater objects, i.e. implementations located entirely or to a great extent under the surface of water. The conditions of implementing architectural objects under water will be discussed in subsequent parts. Some facilities are located in more than one way in relation to the water environment (i.e. they are located in the water space and on the waterfront). The comparison of data in the form of a chart shows that the majority of aquatic objects in the investigated group is located on the waterfront.

It should be emphasized that in the group of the investigated objects of aquatic features as much as 59% is located on land without any contact with a water reservoir or a close relationship with the water environment.

A significant set of objects whose implementation depends on the environment includes objects existing in the water. There are several groups in this category due to the place they take in the water space. They are as follows:
– objects located over the surface of water standing on the construction grounded in the water bed,
– floating objects, i.e. based on the foundation floating on the water as a result of Archimedes buoyancy force,
– underwater objects which are located entirely or partially under the surface of water.

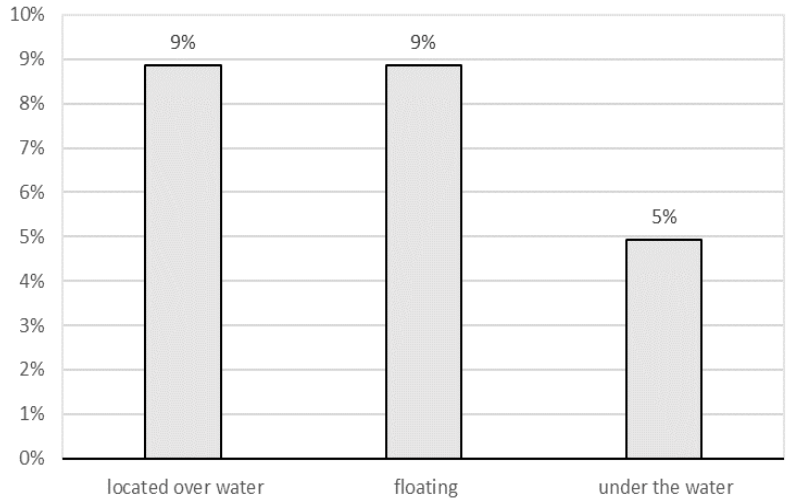

Fig. 7. Percentage of various locations in the water space, among the analyzed 609 objects of contemporary aquatic architecture [own study].

Ryc. 7. Udział różnych miejsc usytuowania w przestrzeni wodnej w zbiorze badanych 609 obiektów współczesnej architektury akwatycznej [opracowanie autora]

The above-presented chart shows a clear share of floating buildings (9%) and buildings built over the surface of water with foundations based on the bed (9%) in the set of aquatic architecture. There is one more group of facilities in the set of the investigated objects. These are objects located in the water space under the surface of water. Their number amounts to 30, which makes up 5% of all studied facilities. This is the smallest sub-set of the presented objects of aquatic architecture and yet it is a proof of a new tendency in architectural creation.

Determining purpose

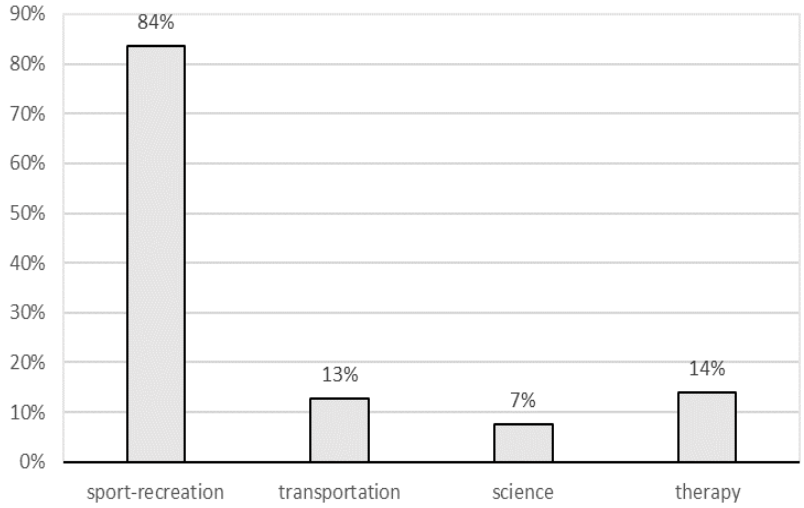

Fig. 8. Percentage of the respective purposes in the group of objects in which water is their determinant feature (267), among 609 analyzed objects of aquatic architecture. [own study].

Ryc. 8. Udział poszczególnych rodzajów przeznaczenia w zbiorze obiektów, w których woda jest ich determinantą (267 szt.), wśród badanych 609 obiektów architektury akwatycznej [opracowanie autora]

The biggest number of objects where water is the determinant of the way of use had a sports and recreation function (84%). The way of functioning of these facilities was determined by the designed functions of sport and recreation.

In the set of the analyzed 609 cases, the majority, i.e. 175 out of 267 objects where water is the function determinant, is implemented on land. Water being originally an element of the natural environment received a setting in contemporary architecture; the setting exhibiting its beauty, significance and properties. Attractiveness of water became the cause of the construction of important architectural objects. This trend is confirmed by a quantitative statement.

Material of architecture

Water as a material can be applied in the form of: ice, water in a liquid state and in a gaseous state. Water as a material in architecture (building material) occurs in 127 out of 609 analyzed cases, i.e. in 21% of cases.

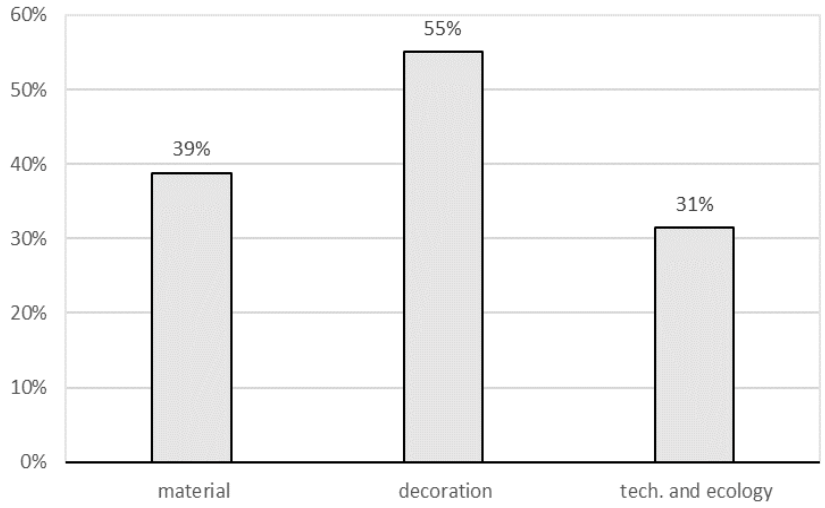

Fig. 9. Percentage of the respective applications of water in the set of water as a material in architecture; (327) among 609 analyzed objects of aquatic architecture [own study]
Ryc. 9. Udział poszczególnych zastosowań wody w zbiorze wody jako tworzywa architektury (327 szt.), wśród badanych 609 obiektów architektury akwatycznej [opracowanie autora]

A number of the set of all objects where water was used as a material amounts to 327. The buildings which featured such a function most often used water as a decoration (55%), less frequently as a factor shaping the environment by means of technical solutions (31%). This shows that the issue of water application in architecture is treated rather superficially[49].

Inspiration

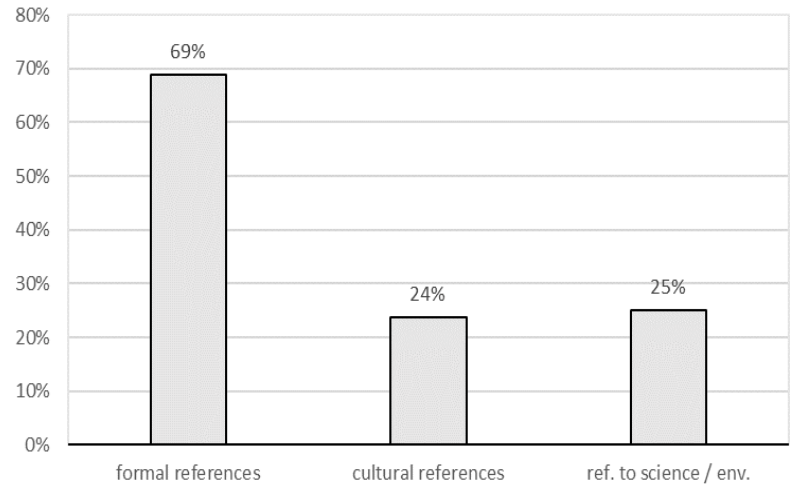

Fig. 10. Percentage of the respective references in the objects with inspiring function of water (80) in development of architecture, among 609 analyzed objects of aquatic architecture [own study]
Ryc. 10. Udział rodzajów odniesień w obiektach, w których określono inspirującą funkcję wody (80 szt.) w kształtowaniu architek-tury w zbiorze badanych 609 obiektów architektury akwatycznej [opracowanie autora]

The set of objects with an inspiring role of water in the scope of intangible influence encompasses 80 objects, including 14 objects with a double reference. The frequency of occurrence of individual references in studied objects is presented in Fig.10.

[49] The lack of duly knowledge of typical and widely used technical solutions by designers and users is one of the weaknesses which can be taken into consideration in the SWOT analysis.

Water as a material factor commonly encountered in the natural environment and used on a daily basis may also be a carrier of different information, something immaterial. This invaluable substance constitutes the basis of life on Earth and covers most of the planet surface. Humans are fully aware of its uniqueness and value. Apart from its functional significance to the development of civilization and its products (such as craft and industry), water has always been an inspiration for making myths, legends and symbols. The interpretation of the element of water occurring in the form of seas, rivers and oceans adopted a form of religious beliefs, symbols or lay myths. An emotional bond between a human being and the live-sustaining medium existing since the dawn of time has been an impulse to create associations and references to water in art and artistic activity.

2.6. Explanation of the notion of aquatic architecture

The literature on the subject matter uses various vocabulary to distinguish and determine phenomena connected with building in special conditions related with water. Architecture connected with water was attributed several new adjectives, such as **aquatic** – understood as original aesthetic values closely connected with water as well as **nautical** – referring to ship images (**Niemczyk E.** 2002b, **Nofski P.** 2001, **Nofski P.** 1996). It is necessary to clarify here that 'nautical' refers to the architecture of buildings, whereas 'naval' to shipbuilding, engineering and design of marine vessels and structures[50], which is an entirely different set of technical knowledge. Some publications attempt to coin new words to define buildings having a contact with water. However, their precise meanings have not been established yet.

Terms like **aquatecture** do not have precise meaning. For instance, in one case this term refers to objects being within the reach of the tide resulting from the global increase of the sea levels (**Williams E.** 2009). In another case, it refers to all types of buildings where water is a basic functional or aesthetic element determining the shaping of the object (**Wylson A.** 1986). In spite of the intriguing sound of this word, different types of words are proposed to name the set of architectural objects connected with water.

Amphibious architecture[51] is a new term defining a group of objects whose technical solutions allow staying both on land and water. Such cases might be found in floodland or sites of high fluctuations of waters, like in the case of tides. The expression 'amphibious' on the scale of urban planning leads to the name of an **amphibious city**, which has already been used to describe the urban ecosystem of Bangkok. This city being located in the river delta is affected by the river not only in terms of landscape and space formation but also in the scope of economy. A changeable water level influences mainly the way of functioning of the suburbs. This city with changeable flooding areas was called an amphibious city (**Castle H.** 2005a).

The shaping of architectural objects by interaction with water, such as an inspiration, technical challenge, attraction, material, decoration, ecological factor or location in the natural water environment, is proposed to be called:

- **aquatic architecture –** in analogy to the terminology adopted by other authors[52],
- **aqua-architecture –** by combining the words *aqua* and architecture,
- **aquatectonic** architecture, object, or building, i.e. shaped by the imitation of the forms of water, such as structure, patterns, optical effects.

  Aqua-architecture, an aquatectonic building or aquatic architecture – these terms may be used to define architectural objects as opposed to ***naval architecture***[53] dealing with designing and engineering of marine vessels.

  The terminology adopted here describes phenomena which will be discussed in the further

[50] *Naval architecture* or *naval egineering* (**Biran** 2003).
[51] http://www.icaade2015.com/as of 18.06.2015, the website of the conference on *amphibious architecture* planned for the summer 2015.
[52] **Niemczyk E**. (2002b) w: *Aquatic Motifs in Architecture - Motywy akwatyczne w architekturze*, **Niemczyk E**. (2002a) in: *Four Elements in Architecture - Cztery żywioły w architekturze*, **Januchta-Szostak A**. (2011) in: *Water in Urban Space - Woda w przestrzeni miejskiej*, **Janowski M**. (2009), *Aquatic Elements in the Architecture of Single Family Houses - Akwatyczne elementy architektury domów jednorodzinnych,* in: **Januchta-Szostak A.** (2009b).
[53] An example of the organization for the specialists in this field is the RINA (Royal Institute of Naval Architects). http://www.rina.org.uk/, as of 30.03.2015.

parts of work. A complete study of the above-mentioned terms could be an interesting task for linguists but it is not the topic of deliberations presented in this research. It is therefore recommended that the following definition should be adopted:

Aquatic architecture is a field in which the features of an object (a work of architecture) are determined by its functional, technical, aesthetic and symbolic relations with water as material or environment.

Aquatic architecture is represented by a group of building objects in which water performs the following functions: environment, material, inspiration or a determinant of the object's purpose. The function of water as a substance or a technical medium which is solely instrumental[54] or related to services[55] is not an impulse for the creation of aquatic architecture.

[54] Being the subject of the physical studies of a building.
[55] Hygienic, sanitary, fire-fighting.

SUMMARY

On the basis of the presented results of the investigations, a significant role of aquatic architecture as a contemporary trend in shaping space was documented. Water is traditionally a symbol of values which undergo evolution, but continuously shape architectural space.

Scientific results of the research presented in this monograph constitute the following cognitive goal which was achieved by the author:

- systematics of issues of the architecture being in close relations with water on the basis of investigations of the functions of water in an object,

The presented work is a result of many years of research on the relations between water and architecture which has been conducted by the author. The collected set of 609 contemporary aquatic objects constitutes the basis of the conducted analyses. The functions of water in contemporary architectural objects were adopted as the subject of these investigations. On the grounds of the analyses, various functions played by water in architecture were distinguished.

This work defined a field of artistic creativity called aquatic architecture. The following definition was adopted: **Aquatic architecture is a field in which the features of an object (an architectural work) are determined by its functional, technical, aesthetic and symbolic relations with water treated as a material or environment.**

The analysis of a large number of objects (609 objects) was conducted, which served the purpose of discovering as big number as possible of the phenomena connected with aquatic architecture. The conducted investigations enable the formulation of the following final conclusions:

1. Water is a factor shaping the built environment.

2. Water is an inspiration in the process of creation of architecture.

3. Water can be used as a building material.

4. The function of a building can be determined by water.

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ABSTRACT

CONTEMPORARY AQUATIC ARCHITECTURE

PART 1. STUDY AND INVESTIGATIONS

Definition: Aquatic architecture is a field in which the properties of a structure (an architectural work) are determined by its functional, technical, aesthetic and symbolic relationships with water as a material or environment.

The area of research constitutes a collection of issues associated with the relationships between water and contemporary architecture. Initial research has indicated that architectural structures of aquatic properties constitute about 12-13% of the world implementations. That value illustrates how significant that subject is. This monograph describes the results of the research conducted on 609 aquatic architectural structures. The research analyzed the examples of world architecture, together with own designs, as well as the diploma designs prepared under the supervision of the author. The analyzed examples of world architecture structures were developed in the years 1985-2015. The sources of information on the structures were the descriptions in printed publications and original online publications. Some of the analyzed structures were studied by the author himself. The analyses excluded the structures of naval architecture as examples of different fields of science and technology, and the issues of construction physics and water supply for sanitary, life-sustaining and fire-fighting purposes.

The characteristic property (determinant) specifying the role of water in architecture has been assumed to be the function of water.

STRESZCZENIE

WSPÓŁCZESNA ARCHITEKTURA AKWATYCZNA

CZĘŚĆ 1. STUDIA I POSZUKIWANIA

Definicja: Architektura akwatyczna to dziedzina, w której o cechach obiektu (dzieła architektonicznego) decydują jego funkcjonalne, techniczne, estetyczne i symboliczne związki z wodą jako tworzywem lub środowiskiem.

Obszar badań stanowi zbiór zagadnień związany z wzajemnymi relacjami wody i architektury współczesnej. Badania wstępne wykazały, że obiekty architektoniczne o cechach akwatycznych stanowią 12-13% realizacji światowych. Wartość ta świadczy o istotności zagadnienia. Praca jest opisem wyników badań przeprowadzonych na 609 obiektach architektury akwatycznej. W badaniach analizowano przykłady architektury światowej, które ujęto w zestawieniu z projektami własnymi i projektami dyplomowymi wykonanymi pod kierunkiem autora. Analizowane przykłady światowych obiektów architektonicznych pochodziły z lat 1985-2019. Źródłem informacji o obiektach były opisy umieszczane w publikacjach drukowanych i autorskich informacjach internetowych. Część zbioru analizowanych obiektów pochodzi z obserwacji własnych. Z analiz zostały wyłączone obiekty architektury okrętowej (Naval Architecture), jako stanowiące przedmiot innej dziedziny nauki i techniki oraz zagadnienia fizyki budowli, a także zaopatrzenia w wodę w celach sanitarnych, bytowych i pożarowych.

Za cechę charakterystyczną określającą rolę wody w architekturze przyjęto funkcję wody.

ANNEXES

ANNEX 1
Examples of research sheets of the set of aquatic architecture

Presentation of the examples of research sheets aims to demonstrate the work methods used in the determination of features of aquatic architecture. The selected examples were provided with a current link to the Internet resources, showing thus the objects in a distinct way. In addition, the reader may conduct their own case analysis on the basis of the provided sources of literature.

ANNEX2
List of all investigated cases of contemporary aquatic architecture

ANNEX 1

1	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**FLOATING HOUSES**																							
location	**Hamburg, Germany**																							
author	**ARCHITEKTEN FÖRSTER TRABITZSCH**																							
illustration	https://www.urban-scope.de/located.php#floatinghomes 14.03.2019																							
creation date	2004-2006																							
purpose	residential house																		1					
w. influence	environment																							
relation to w.	floating on the water, city yacht port														1									
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", publication series Architecture Compact, h.f. Ullmann, 2008, p.105.; http://www.floatinghomes.de/b-type-en.php, 27.01.2015.																							

2	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SIX WATER HOUSES**																							
location	**IJ-Burg/ Amsterdam, Netherlands**																							
author	**ART ZAAIJER**																							
illustration	http://www.ecoboot.nl/ecoboot_new/wp-content/uploads/2006/10/waterwoningzaaijerbezoekctr.jpg																							
creation date	2000-2001																							
purpose	residential houses																		1					
w. influence	environment, inspiration																							
relation to w.	floating on the water														1									
impl. phase	implemented																					1		
source	http://www.zaaijer.nl/, 1.04.2009.; http://www.h2olland.nl/projectdetails.asp?id=223, 1.04.2009.;																							

3	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WATER DWELLING**																							
location	**Middelburg, Netherlands**																							
author	**ARCHITECTUURSTUDIO HERMAN HERTZBERGER**																							
illustration	https://www.ahh.nl/images/projecten/woningbouw/WaWo/2.jpg																							
creation date	1998-2002																							
purpose	residential house																		1					
w. influence	environment																							
relation to w.	floating on the water														1									
impl. phase	implemented																					1		
source	Jodidio P., „NL, Architectuur in Nederland" , Taschen. Koln 2006r., p.52.; Kupiec-Hyła D., „Wykorzystać nieużyteczne – holenderski eksperyment „Water villa" w Middelburgu", Czasopismo Techniczne 2007, Wydawnictwo Politechniki Krakowskiej, z.9- Architektura z.4- A, p. 114.; http://www.h2olland.nl/projectdetails.asp?id=225 , 1.06.2009.;																							

4	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**FUTURE HOUSE**																							
location	**London, UK**																							
author	**MARCIN PAŃPUCH**																							
illustration	http://www.marcinpanpuch.com/FHL.htm																							
creation date	2004 design																							
purpose	residential house																		1					
w. influence	environment																							
relation to w.	floating on the water														1									
impl. phase	concept design																						1	1
source	Pańpuch M., „Karawaning na Tamizie", Architektura & Biznes 2004, z. architektura wody, nr 10; p. 60-61.																							

5	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**FLOATING HOUSE**																							
location	**Georgia Bay, Lake Huron, Ontario, Canada**																							
author	**MICHAEL MEREDITH, HILARY SAMPLE**																							
illustration	http://www.archdaily.com/10842/floating-house-mos/ , : 1.03.2009r.																							
creation date	2004-2007																							
purpose	residential house																		1					
w. influence	environment																							
relation to w.	floating on the water														1									
impl. phase	implemented																					1		
source	Bozikovic A., „Floating House, Lake Huron ", dwell - At Home in the Modern World 2008, z. In Its Element- Homes Designed for the Environment, nr.9 , s. 1.; Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 188-193.; http://www.archdaily.com/10842/floating-house-mos/ , : 1.03.2009.; http://www.mos-office.net/#a, : 1.03.2009.																							

6	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HOUSEBOAT**																							
location	**Dubai, United Arab Emirates**																							
author	**X-ARCHITECTS | LEEN VANDAELE**																							
illustration	http://www.archdaily.com/13699/houseboat-x-architects/																							
creation date	2005-2006																							
purpose	residential house																		1					
w. influence	environment																							
relation to w.	floating on the water														1									
impl. phase	implemented																					1		
source	https://www.x-architects.com																							
7	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SILODAM**																							
location	**Westerdoksdijk, Amsterdam, Netherlands**																							
author	**MVRDV - Winy Maas, Jacob van Rijs, Nathalie de Vries,**																							
illustration	https://media.archinform.net/m/70040522.jpg																							
creation date	1995-2002																							
purpose	block of flats with shops and offices																		1	1	1			
w. influence	utility functions, environment																							
relation to w.	standing in the water on the bottom													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 194-197.; The Phaidon Atlas of Contemporary World Architecture, Phaidon Press Inc, New York 2004. p. 329. ; Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 24-25; http://architypes.net/squaree/silodam, 1.04.2009. ; http://www.h2olland.nl/projectdetails.asp?id=227, 1.04.2009. ; http://www.mvrdv.nl/projects/SILODAM/, 06.02.2015.																							
8	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE SPHINXES**																							
location	**Gooimeerpromenade, Huizen/ Amsterdam, Netherlands**																							
author	**NEUTELINGS RIEDIJK ARCHITECTS**																							
illustration	https://www.mimoa.eu/images/3409_l.jpg																							
creation date	1996-2003																							
purpose	block of flats																		1					
w. influence	utility functions, environment																							
relation to w.	standing in the water on the bottom													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 198-201.; Jodidio P., „NL, Architectuur in Nederland" , Taschen. Koln 2006., p. 94.; "Neutelings Riedijk Architecten- Lake Side Housing "The Sphinxes ", A+U, Tokyo 2006, nr. 6 p. 46.																							
9	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BASTION ISLAND HOUSING**																							
location	**Leeuwarden, Friesland, Netherlands**																							
author	**ATELIER ZEINSTRA VAN DER POL; DOK ARCHITECTEN**																							
illustration	https://dokarchitecten.nl/img/slides/171025_dok-architecten_bastioneiland_leeuwarden.376x256.jpg																							
creation date	1997-2000																							
purpose	single family recreation houses																		1					
w. influence	inspiration, environment	1																						
relation to w.	standing in the water on the bottom													1										
impl. phase	implemented																					1		
source	The Phaidon Atlas of Contemporary World Architecture, Phaidon Press Inc, New York 2004. p.324.																							
10	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**OSIEDLE WATERWIJK**																							
location	**Ypenburg, Hague, Netherlands**																							
author	**MVRDV**																							
illustration	http://api.mvrdv.boerdamdns.nl/media/uploads/project/152/ypen04.jpg?width=1920																							
creation date	1998-2005																							
purpose	residential houses, single family																		1					
w. influence	utility functions, environment																							
relation to w.	artificial island												1											
impl. phase	implemented																					1		
source	Rasmussen M. K., „Colour makes the difference. Hageneiland residental area In Ypenburg", Daylight & Architecture- magazine by VELUX 2006, z. residential environments, nr. 2, p. 64.; http://www.mimoa.eu/projects/Netherlands/Den%20Haag/Ypenburg%20Watervillas ; http://www.mvrdv.nl/projects/ypenburg/																							

11	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BORNEO -SPORENBURG**																							
location	**Amsterdam, Netherlands**																							
author	**WEST 8, MVRDV**																							
illustration	https://st3.idealista.com/news/archivos/2014-10/borneo-sporenburg.jpg?sv=ua4T45jr																							
creation date	1993-2000																							
purpose	residential houses																		1					
w. influence	utility functions, environment					1																		
relation to w.	standing in the water on the bottom													1										
impl. phase	implemented																					1		
source	The Phaidon Atlas of Contemporary World Architecture, Phaidon Press Inc, New York 2004. pp. 330-331.; Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków.; https://www.mvrdv.nl/																							
12	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**AIOLA ISLAND CAFÉ**																							
location	**Graz, Austria**																							
author	**VITO ACCONCI/ ACCONCI STUDIO, ROBERT PUNKENHOFER/ ART & IDEA**																							
illustration	https://www.art-idea.com/wp-content/uploads/2012/11/murinsel1-630x472.jpeg																							
creation date	1999-2004																							
purpose	utility: amphitheatre, restaurant																			1				
w. influence	formal inspiration, environment	1															1							
relation to w.	standing in the water on the bottom													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 212-217.; http://www.graz03.at/servlet/sls/Tornado/web/2003/content_e/8FCE673302F9BE61C1256B81005CED38 ; http://www.mimoa.nl/projects/Austria/Graz/Mur%20Island																							
13	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HONG LUO CLUB**																							
location	**Beijing, China**																							
author	**MAD/ IDEA**																							
illustration	https://images.adsttc.com/media/images/500e/e27a/28ba/0d0c/c700/0b5c/newsletter/stringio.jpg?1414008562																							
creation date	2005-2006																							
purpose	utility: restaurant																			1				
w. influence	symbolic, inspiration, utility functions, environment	1																						
relation to w.	standing in the water on the bottom													1										
impl. phase	implemented																					1		
source	Bulanda-Jansen A., „Floating club - Hongluo Clubhouse MAD"; Architektura & Biznes 2009; z. Architecture and Water, nr 3; p. 47; http://www.archdaily.com/3310/hong-luo-club-house-mad/																							
16	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Badeschiff - floating pool**																							
location	**River Spree, Berlin, Germany**																							
author	**Gilbert Wilk and Susanne Lorenz**																							
illustration	https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQkIfzaabmuZY_qaOJjNNCXEuxgzG9jQQFbwfrtv_LASsIwJOU																							
creation date	2004																							
purpose	utility, recreation, pool																			1				
w. influence	utility functions, environment				1																			
relation to w.	floating on the water														1									
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 274-277.																							
20	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Offshore Stadium. FIFA 2022 Football Championships Vision**																							
location																								
author	**Stadium concept, Peter Knoebel**																							
illustration	https://www.commercialinteriordesign.com/sites/default/files/cid/styles/full_img_crop/public/images/2011/05/24/Sea_OffShore_Stadium_L.jpg?itok=GfVhqgwn																							
creation date	2010/2011																							
purpose	utility,																			1				
w. influence	technical challenge, environment																1							
relation to w.	floating on the water														1									
impl. phase	concept																						1	
source	http://www.tenniswood.co.uk/technology/world-cup-qatar-2022-floating-stadium/ , 06.02.2015.																							

22	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Spa , Volkswagen factory**																							
location	**Wolfsburg, Germany**																							
author	**Max Wehberg**																							
illustration	https://www.area-arch.it/wp-content/uploads/sites/6/2017/09/008_as_badeschiff_spa_%E2%88%8Fis-services_wongebergmann.jpg																							
creation date	2005																							
purpose	utility																				1			
w. influence	utility functions, environment				1			1																
relation to w.	floating on the water														1									
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 262-265. ; http://www.buero-wehberg.de/en_design_detail.php?id=42 , 06.02.2015.																							

26	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Spaceframe – design N55.**																							
location	**London - Amsterdam**																							
author	**N55**																							
illustration	http://www.n55.dk/MANUALS/SPACEFRAME/spaceframe.html																							
creation date	2002																							
purpose	residential																		1					
w. influence	environment																							
relation to w.	floating on the water														1									
impl. phase	implemented																					1		1
source	Kołakowski M.M., „Re(e)ewolucyjny krok ku wodzie", Architektura and Biznes. ; http://www.n55.dk/MANUALS/SPACEFRAME/spaceframe.html, 06.02.2015.																							

28	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Ozeaneum - Marine Museum**																							
location	**Stralsund, Germany**																							
author	**Stefan Behnisch, Martin Haas, David Cook (Behnisch Architekten)**																							
illustration	http://behnisch.com/projects/147																							
creation date	2008																							
purpose	utility																			1				
w. influence	utility functions, inspiration, environment	1					1																	
relation to w.	waterfront												1											
impl. phase	implemented																					1		
source	Pleszko Anna: „Ikona z ambicjami"; „Architektura & Biznes" Nr 3(200)2009 pt. „Architektura i woda"; red. wyd. Mariusz Kopejka; Firma Wydawniczo-Reklamowa „RAM" sp. z o.o.; Kraków 2004, p. 38; http://behnisch.com/projects/147, 15.06.2015																							

32	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TENNESSEE AQUARIUM**																							
location	**Tennessee, USA**																							
author	**CAMBRIDGE SEVEN ASSOCIATES, INC.**																							
illustration	https://www.tnaqua.org/about-us/tennessee-aquarium-history/																							
creation date	River Journey- 1992, Ocean Journey- 2005																							
purpose	utility																			1				
w. influence	utility functions, decoration, environment						1			1														
relation to w.	on land without contact with water												1											
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.c7a.com/work/tennessee-aquarium, 13.02.2015.; http://en.wikipedia.org/wiki/Tennessee_Aquarium																							

34	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**The Florida Aquarium**																							
location	**Florida, USA**																							
author	**HELLMUTH, OBATA+KASSABAUM, INC.**																							
illustration	http://www.bcindustries.com/images/304_Florida-Aquarium_1_.jpg																							
creation date	1955																							
purpose	utility																			1				
w. influence	utility functions						1																	
relation to w.	on land without contact with water												1											
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia; http://en.wikipedia.org/wiki/Florida_Aquarium , 06.02.2015.																							

36	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**L'Oceanogràfic**																							
location	**Valencia, Spain**																							
author	**Santiago Calatrava, Felix Candela**																							
illustration	http://www.cac.es/oceanografic/																							
creation date	2002																							
purpose	utility																			1				
w. influence	utility functions , environment						1																	
relation to w.	at the water													1										
impl. phase	implemented																					1		
source	http://www.cac.es/oceanografic/ , 06.02.2015.; http://en.wikipedia.org/wiki/L%27Oceanogràfic , 06.02.2015.																							
39	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Nordwesthaus - marina, yacht club**																							
location	**Port Rohner Fussach, Austria**																							
author	**Baumschlager Eberle**																							
illustration	http://www.nordwesthaus.at/wordpress/wp-content/gallery/ausblicke/chr02_0202.jpg,																							
creation date	2008																							
purpose	utility																			1				
w. influence	environment, utility functions					1																		
relation to w.	waterfront												1											
impl. phase	implemented																					1		
source	http://www.dezeen.com/2008/12/07/nordwesthaus-by-baumschlager-eberle/																							
41	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Adriatic Hotel**																							
location	**Adriatic Sea**																							
author	**Ivana Filipovic**																							
illustration	https://images.adsttc.com/media/images/55f7/fb5f/c84a/8a5d/b400/0006/slideshow/1-535.jpg?1442315097																							
creation date																								
purpose	utility																			1				
w. influence	environment				1						1													
relation to w.	floating on the water														1									
impl. phase	concept																						1	
source	http://www.archdaily.com/148154/navigating-adriatic-hotel-ivan-filipovic/ , 06.02.2015.																							
42	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Physalia**																							
location	**mobile**																							
author																								
illustration	http://vincent.callebaut.org/object/100104_physalia/physalia/projects/user																							
creation date	2010																							
purpose	utility																			1				
w. influence	challenge, inspiration, environment	1				1					1													
relation to w.	floating on the water, under the water														1	1	1							
impl. phase	concept																						1	
source	http://vincent.callebaut.org/page1-img-physalia.html , 06.02.2015.																							
43	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Thessaloniki Marina**																							
location	**Thessaloniki, Greece**																							
author	**Giannikis SHOP**																							
illustration	https://images.adsttc.com/media/images/55f8/1b84/9644/1e82/dc00/0119/slideshow/01sqr-up-2.jpg?1442323306																							
creation date	2011																							
purpose	utility																			1				
w. influence	environment, communication					1																		
relation to w.	on the bottom, in the water													1										
impl. phase	concept																						1	
source	http://www.archdaily.com/186899/thessaloniki-water-transport-piers-proposal-giannikis-shop/, 06.02.2015.																							

44	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Royal Opera in Copenhagen**																							
location	**Kopenhagen, Denmark**																							
author	**BAR Architects**																							
illustration	https://upload.wikimedia.org/wikipedia/commons/thumb/e/eb/Copenhagen_Opera_House_2014_04.jpg/1200px-Copenhagen_Opera_House_2014_04.jpg																							
creation date	2001-2005																							
purpose	utility																			1				
w. influence	environment, communication					1																		
relation to w.	waterfront												1											
impl. phase	implemented																					1		
source	Kindt S. (1/06/2006) Weekend z architekturą w Kopenhadze. [w] Porębska E.P. (red) dodatek euro-architektura. Architektura murator. Warszawa. s.15; http://www.visitdenmark.pl/pl/kopenHague/architektura/opera-krolewska-w-kopenhadze , 06.02.2015.																							

45	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**EYCHANER/LEE HOUSE**																							
location	**Illinois, Chicago, USA**																							
author	**TADAO ANDO**																							
illustration	http://architourist.pbworks.com/f/1129323508/wrightwood2.jpg																							
creation date	1992-1997																							
purpose	residential																		1					
w. influence	material								1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2000)Tadao Ando 1983-2000. El Croquis 44+58, Madrid.; http://architourist.pbworks.com/f/1129323508/wrightwood2.jpg, 28.02.2015.																							

46	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**YOKOGURAYAMA NATURAL FOREST MUSEUM**																							
location	**Ochi, Kochi Prefecture, Japan**																							
author	**TADAO ANDO**																							
illustration	http://www.attaka.or.jp/data/ki1093/L323.jpg																							
creation date	1994-1997																							
purpose	utility																			1				
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2000)Tadao Ando 1983-2000. El Croquis 44+58, Madrid.; http://nishimori-shuichi.jp/pho/pict-tosa-at-B/at009-01.jpg, 28.02.2015.																							

51	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Underwater bar**																							
location	**New York, USA**																							
author	Thinkmodo																							
illustration	http://www.toxel.com/inspiration/2012/06/29/underwater-bar/																							
creation date	2012																							
purpose	recreation, utility,																			1				
w. influence	environment, utility functions				1																			
relation to w.	underwater															1								
impl. phase	implemented																					1		1
source	http://www.toxel.com/inspiration/2012/06/29/underwater-bar/																							

53	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Kansai Internatioal Airport Terminal**																							
location	**Kansai, Osaka Bay, Japan**																							
author	**Renzo Piano**																							
illustration	https://upload.wikimedia.org/wikipedia/commons/thumb/3/38/Kix_aerial_photo.jpg/1280px-Kix_aerial_photo.jpg																							
creation date	1994																							
purpose	utility																			1				
w. influence	obstacle, inspiration	1																						
relation to w.	on artificial island, on the water													1			1							
impl. phase	implemented																					1		
source	www.rpbw.com; http://www.rpbw.com/project/35/kansai-international-airport-terminal/ , 06.02.2015.																							

54	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**International Port Terminal**																							
location	**Jokohama, Japan**																							
author	**Foreign Office Architects**																							
illustration	https://images.adsttc.com/media/images/5420/792e/c07a/800d/e500/000e/newsletter/yipt-0802-satoru_mishima-05.jpg?1411414312																							
creation date	2000-2002																							
purpose	utility																			1				
w. influence	challenge (obstacle), environment, transportation					1																		
relation to w.	on the bottom in the water													1			1							
impl. phase	implemented																					1		
source	http://www.archdaily.com/554132/ad-classics-yokohama-international-passenger-terminal-foreign-office-architects-foa/, 06.02.2015.																							

55	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Pool**																							
location	**Leca da Palmeira, Portugal**																							
author	**Álvaro Siza**																							
illustration	https://afasiaarchzine.com/2016/10/alvaro-siza-19/alvaro-siza-swimming-pool-leca-de-palmeira-28/																							
creation date	1966																							
purpose	recreation, utility																			1				
w. influence	utility functions, environment				1																			
relation to w.	beach at the sea												1											
impl. phase	implemented																					1		
source	http://www.galinsky.com/buildings/leca/, 28.02.2015.; https://afasiaarchzine.com/2016/10/alvaro-siza-19/alvaro-siza-swimming-pool-leca-de-palmeira-28/																							
56	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Kastrup Sea Bath**																							
location	**Kastrup, Denmark**																							
author	**White Architekter AB**																							
illustration	http://www.archdaily.com/2899/kastrup-sea-bath-white-arkitekter-ab/																							
creation date	2005																							
purpose	utility																			1				
w. influence	utility functions, environment				1																			
relation to w.	on the water on the stilts													1										
impl. phase	implemented																					1		
source	http://www.archdaily.com/2899/kastrup-sea-bath-white-arkitekter-ab/, 06.02.2015.																							
57	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Water Glass House**																							
location	**Atami, Japan**																							
author	**Kengo Kuma and Associates**																							
illustration	http://kkaa.co.jp/works/architecture/water-glass/																							
creation date	1995																							
purpose	residential																		1					
w. influence	inspiration, mystic, material	1	1						1	1														
relation to w.	on land, surrounded by water, the pool edge is disappearing											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 176-179.; http://kkaa.co.jp/works/architecture/water-glass/																							
59	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BLUR BUILDING**																							
location	**Yverdon-les Bains, Switzerland**																							
author	**ELISABETH DILLER & RICARDO SCOFIDIO**																							
illustration	http://www.arcspace.com/features/diller-scofidio--renfro/blur-building/																							
creation date	2002																							
purpose	exhibition																	1						
w. influence	inspiration, building material, environment	1		1					1															
relation to w.	on the water, on the bottom													1										
impl. phase	implemented																					1		
source	Nyka Lucyna: "Nowe Krajobrazy. Redefinicja relacji architektura-woda na przykładzie wybranych realizacji."; Architektura & Biznes Nr 09 2008; red. wyDenmark Kraus Paweł; Firma Wydawniczo-Reklamowa „RAM" sp. z o.o.; Kraków 2004; Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 94-97.; http://www.arcspace.com/features/diller-scofidio--renfro/blur-building/																							
63	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**National Aquatic Center**																							
location	**Beijing, China**																							
author	**PTW Architects**																							
illustration	http://www.ptw.com.au/ptw_project/watercube-national-swimming-centre/																							
creation date	2003-2008																							
purpose	utility pool																			1				
w. influence	inspiration, utility functions	1			1																			
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	www.chrisbosse.de/watercube; Porębska Ewa (redaktor naczelny Architektura – murator) „Architektura - Architektura poprzez technikę: Narodowe Centrum Sportów wodnych w Beijingie"; wyd. MURATOR S.A. nr.5(164); Bulanda-Jansen A. (2007) Szczęśliwa ósemka. [w] Kraus P. (red) Architektura & Biznes nr 12. Kraków; http://www.ptw.com.au/ptw_project/watercube-national-swimming-centre/, 06.02.2015.																							

67	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Les Bains des Docks**																							
location	**Le Havre, France**																							
author	**Jean Nouvel**																							
illustration	http://www.jeannouvel.com/wp-content/uploads/2017/04/ajn-lehavre-bainsdesdocks-philipperuault-22.jpg																							
creation date	2006-2008																							
purpose	utility, pool																			1				
w. influence	utility functions				1																			
relation to w.	waterfront												1											
impl. phase	implemented																					1		
source	http://www.jeannouvel.com/																							

69	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Tropical Islands**																							
location	**Krausnick, Germany**																							
author																								
illustration	https://citytripwith.us/media/ContentGenerator/en_US/ti5.jpg																							
creation date	2008																							
purpose	utility, pool																			1				
w. influence	utility functions				1																			
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Joachim Fischer: „1000 x European Archiecture"; wyd. Varlags Braun; September 2007; http://pl.wikipedia.org/wiki/Tropical_Islands																							

70	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Olympic Velodrome and Swimming Pool**																							
location	**Berlin, Germany**																							
author	**Dominique Perrault**																							
illustration	http://www.perraultarchitecte.com/en/projects/2464-velodrome_and_olympic_swimming_pool.html																							
creation date	1992-1999																							
purpose	utility, pool																			1				
w. influence	utility functions, aquatic visual art, material				1				1															
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Jodidio Philip: „Architecture now! Vol. 1" publ. Taschen; May 2001; (2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.perraultarchitecte.com/en/projects/2464-velodrome_and_olympic_swimming_pool.html, 11.02.2015.																							

71	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Nautical Center**																							
location	**Mantes-la-Jolie, France**																							
author	**Dominique Perrault**																							
illustration	http://static.dezeen.com/uploads/2012/01/dezeen_The-Mantes-la-Jolie-Water-Sports-Centre-by-Agence-Search_5-b.jpg																							
creation date	1999																							
purpose	utility, pool																			1				
w. influence	utility functions				1																			
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Jodidio Philip: „Architecture In the United France"; publ. Taschen GmbH; October 2006																							

72	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TOTO SEMINAR HOUSE**																							
location	**Tsuna-gun, Hyogo, Japan**																							
author	**TADAO ANDO**																							
illustration	http://www.geocities.ws/arquique/ando/grandes/atts05.jpg																							
creation date	1996																							
purpose	residential																		1					
w. influence	utility functions, decoration				1					1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2000)Tadao Ando 1983-2000. El Croquis 44+58, Madrid																							

73	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Nuremberg Prisma**																							
location	**Nuremberg, Germany**																							
author	**Joachim Elbe**																							
illustration	http://sealevel.ca/lowimpact/lowphotos/prisma450.jpg																							
creation date	1992-1997																							
purpose	service																			1				
w. influence	Air-conditionig, microclimate										1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Dreiseitl H. (2005) Water is universal. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser.																							

74	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Aqua Skyscraper**																							
location	**Chicago, USA**																							
author	**Jeanne Gang**																							
illustration	http://studiogang.com/img/c3ZSK2hZbmpKSkdPclpKN2FJTm5pdz09/0425-aqua-image-001.jpg																							
creation date	2007-2009																							
purpose	utility, residential																		1	1				
w. influence	inspiration (by lake waves)	1																						
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	http://www.studiogang.net/work/2004/aqua-tower, 06.02.2015.																							

75	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THERME VALS**																							
location	**Canton Vals, Switzerland**																							
author	**PETER ZUMTHOR**																							
illustration	http://www.archdaily.com/13358/the-therme-vals/																							
creation date	1996																							
purpose	utility																			1				
w. influence	utility functions, material, decoration, inspiration	1			1			1	1	1														
relation to w.	a building half-submerged in the ground that draws water from hot thermal springs emanating from the slopes of the alpine mountains											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 278-283.; http://www.archdaily.com/13358/the-therme-vals/ ; http://7132.com/en/home/?main=spa, 27.01.2015.																							

78	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WATER VILLAS**																							
location	**Almere, Flevoland, Amsterdam, Netherlands**																							
author	**UNStudio**																							
illustration	https://www.unstudio.com/image/2017/2/24/watervillas_01.jpg%28mediaclass-background-xl.07f7adb8a95599dcb70557da25aa6351c3fd0c58%29.jpg																							
creation date	1999-2001																							
purpose	residential																		1					
w. influence	environment																							
relation to w.	waterfront												1											
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 252-255.; http://www.unstudio.com/projects/water-villas																							

80	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WATER HOUSES**																							
location	**Osdorp, Amsterdam, Netherlands**																							
author	**TANGRAM ARCHITEKTEN**																							
illustration	https://tangramarchitekten.nl/portfolio/water-dwellings/																							
creation date	1999																							
purpose	residential																		1					
w. influence	environment																							
relation to w.	on the water, on concrete foundations, "connected" to the causeway													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 244-247. ; http://www.h2olland.nl/project.asp?id=222, 27.01.2015.																							

82	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SONEVA FUSHI**																							
location	**Kunfunadhoo, Maledives**																							
author	**SONU + EVA SHIVDASANI**																							
illustration	http://www.soneva.com/soneva-fushi/																							
creation date	1995																							
purpose	utility, hotel																			1				
w. influence	environment																							
relation to w.	on the water, on stilts driven into the bottom, beach												1											
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 234-239.																							

83	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**T-MOBILE STADT**																							
location	**Bonn, Germany**																							
author	**RMP STEPHAN LENZEN LANDSCHAFTSARCHITEKTEN**																							
illustration	https://www.rmpsl.la/fileadmin/_migrated/pics/7.03.03_TMobile_2.jpg																							
creation date	2001-2005																							
purpose	utility																				1			
w. influence	decoration, ecology									1	1													
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 230-233.																							

84	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LAKE AUSTIN BOAT DICK**																							
location	**Lake Austin, Texas, USA**																							
author	**JUAN MIRO & MIGUEL RIVERA, MIRO RIVERA ARCHITECTS**																							
illustration	http://www.mirorivera.com/lake-austin-boat-dock.html																							
creation date	2010																							
purpose	residential																		1					
w. influence	inspiration, environment	1																						
relation to w.	floating carpentry workshop on a prefabricated steel skeleton that requires the foundation and is anchored in the rock on the bottom of the lake													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 224-229.; http://www.mirorivera.com/lake-austin-boat-dock.html, 27.01.2015.																							

85	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THAMES FLOOD BARRIER**																							
location	**Woolwich, London, UK**																							
author	**RENDEL, PALMER AND TRITTON**																							
illustration	http://en.wikipedia.org/wiki/Thames_Barrier																							
creation date	1982																							
purpose	flood barrier on the river Thames																	1						
w. influence	challenge, technology										1													
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 218-223.; http://en.wikipedia.org/wiki/Thames_Barrier, 27.01.2015.																							

86	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HOTEL ESTALAGEM DA PONTA DO SOL**																							
location	**Madeira, Portugal**																							
author	**TIAGO OLIVEIRA**																							
illustration	http://www.pontadosol.com/																							
creation date	2001																							
purpose	utility, pool																			1				
w. influence	inspiration, utility functions	1			1																			
relation to w.	on the cliff without contact with water												1											
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 208-211.																							

88	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**JESOLO LIDO VILLAGE**																							
location	**Jesolo,Italy**																							
author	**RICHARD MEIER & PARTNERS**																							
illustration	http://www.richardmeier.com/?projects=jesolo-lido-village-2.																							
creation date	2003-2007																							
purpose	utility																			1				
w. influence	utility functions, material				1				1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 184-187.; http://www.richardmeier.com																							

91	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**UNIVERSUM SCIENCE CENTER**																							
location	**Brema, Germany**																							
author	**THOMAS KLUMPP**																							
illustration	http://www.klumpp.us/galerie1_1.htm																							
creation date	1998-2000																							
purpose	utility, museum of science																			1				
w. influence	inspiration, material	1							1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 162-165.; http://www.klumpp.us/galerie1_1.htm , 27.01.2015.																							

93	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HOTEL PALAFITTE**																							
location	**Neuchâtel, Switzerland**																							
author	**KURT HOFMANN**																							
illustration	http://www.palafitte.ch/en/home.html																							
creation date	2002																							
purpose	utility																			1				
w. influence	environment																							
relation to w.	on the water, on stilts driven into the bottom													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 152-155.; http://www.palafitte.ch/en/home.html, 27.01.2015.																							

95	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**NORVEG MUSEUM AND CULTURAL CENTER**																							
location	**Rørvik, Norway**																							
author	**GUDMUNDUR JONSSON**																							
illustration	http://www.arthitectural.com/wp-content/uploads/2013/02/Norveg_54-640x425.jpg																							
creation date	2004																							
purpose	utility, museum																			1				
w. influence	inspiration, environment	1		1																				
relation to w.	on the water, on concrete columns													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 142-147.; http://www.gudmundurjonsson.no ; http://www.internet.is/gudmundurjonsson/norveg.html, 28.01.2015r.																							

97	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**NEW ROYAL BATH**																							
location	**Bath, UK**																							
author	**NICHOLAS GRIMSHAW & PARTNERS**																							
illustration	https://grimshaw.global/projects/thermae-bath-spa/																							
creation date	2006																							
purpose	utility, thermal baths																			1				
w. influence	utility functions, decoration				1					1														
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 130-135.; http://grimshaw-architectpp.com/project/thermae-bath-spa/, 28.01.2015r.																							

98	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LIQUIDROM**																							
location	**Berlin, Germany**																							
author	**GMP ARCHITEKTEN**																							
illustration	http://www.liquidrom-berlin.de/de/																							
creation date	2002																							
purpose	utility, spa																			1				
w. influence	utility functions, decoration				1			1		1														
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 126-129.; http://www.gmp-architekten.com/projectpp.html ; http://www.liquidrom-berlin.de/de/, 28.01.2015r.																							

99	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**GUGGENHEIM MUSEUM**																							
location	**on the bank of the river Nervión, Bilbao, Spain**																							
author	**FRANK O. GEHRY**																							
illustration	https://upload.wikimedia.org/wikipedia/commons/d/de/Guggenheim-bilbao-jan05.jpg																							
creation date	1994-1997																							
purpose	utility, museum																			1				
w. influence	inspiration	1																						
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 120-125.; (2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://pl.wikipedia.org/wiki/museum_Guggenheima_w_Bilbao ; http://www.bryla.pl/bryla/51,85298,7946445.html?i=3, 28.01.2015r.																							

103	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BAISOUIN TEMPLE**																							
location	**Minato, Tokyo, Japan**																							
author	**KENGO KUMA & ASOCIATES**																							
illustration	http://kkaa.co.jp/works/architecture/baisoin-temple/																							
creation date	2003																							
purpose	sacral																			1				
w. influence	inspiration, mystic, material	1	1						1															
relation to w.	a building surrounded by water giving the impression of dematerializing the edge of the roof											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 172-175.; http://kkaa.co.jp/works/architecture/baisoin-temple/, 28.01.2015r.																							

104	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WEBB BRIDGE**																							
location	**River Yarra, Melbourne, Australia**																							
author	**DENTON CORKER MARSHALL & ROBERT OWEN**																							
illustration	http://www.dentoncorkermarshall.com/projects/webb-bridge/																							
creation date	2004																							
purpose	utility, bridge																	1						
w. influence	challenge, inspiration	1															1							
relation to w.	obstacle																							
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 90-93.;http://www.dentoncorkermarshall.com/ projects/webb-bridge/, 28.01.2015r.																							

105	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**RAY 1 HOUSE**																							
location	**Vienna, Austria**																							
author	**DELUGAN MEISSL ASSOCIATED ARCHOTECTS**																							
illustration	http://www.dmaa.at/designe/detail-page/house-ray1.html																							
creation date	2003																							
purpose	residential, decoration																		1					
w. influence	material								1	1														
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 84-89.; http://www.dmaa.at/designe/detail-page/house-ray1.html, 28.01.2015r.																							

106	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ART MUSEUM**																							
location	**Groningen, Netherlands**																							
author	**COOP HIMMELB(L)AU, ALESSANDRO MENDININI, MICHELE DE LUCCHI, PHILIPPE STARCK**																							
illustration	http://www.coop-himmelblau.at/ architecture/ projects/groninger-museum/																							
creation date	1994																							
purpose	utility, museum																			1				
w. influence	environment																							
relation to w.	on the island in the middle of the water channel													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 78-83.; http://www.coop-himmelblau.at/architecture/ projects/groninger-museum/, 28.01.2015r.																							

107	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CITY OF ARTS AND SCIENCES**																							
location	**River Turia, Valencia, Spain**																							
author	**SANTIAGO CALATRAVA**																							
illustration	http://orig02.deviantart.net/5170/f/2011/155/2/f/city_of_art_and_science_by_runedance0-d3i0te0.jpg																							
creation date	1998-2003																							
purpose	utility																			1				
w. influence	inspiration, material	1							1															
relation to w.	on land (in the former riverbed), surrounded by shallow pools											1		1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 72-77.; http://www.arcspace.com/features/santiago-calatrava/city-of-arts-and-sciences/, 28.01.2019r.																							

108	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**DOCKLAND**																							
location	**Hamburg, Germany**																							
author	**BRT ARCHITEKTEN**																							
illustration	https://www.architravel.com/architravel_wp/wp-content/uploads/2013/01/Dockland-Office-Building_2-990x500.jpg																							
creation date	2004-2006																							
purpose	utility																				1			
w. influence	challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 66-71.; http://www.brt.de/en/projects/nav/1/category/office-buildings/project/dockland-office-building-2.html, 28.01.2019r.																							

109	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**PAUL-LÖBE-HAUS**																							
location	**Berlin, Germany**																							
author	**STEPHAN BRAUNFELS**																							
illustration	https://img.archilovers.com/projects/b_730_CE64A7B4-6E28-4E9D-A099-0A4270B6063D.jpg																				1			
creation date	2001												1											
purpose	office																					1		
w. influence	environment																							
relation to w.	on the shore, the river Spree flows between the buildings																							
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 62-65.;http://www.braunfels-architekten.de/#/designe/auswahl/ausgewaehlte-designe/paul-loebe-haus-berlin/, 28.01.2019r.																							
110	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SPA BERGOASE**																							
location	**Arosa, Switzerland**																							
author	**MARIO BOTTA**																							
illustration	https://www.mimoa.eu/projects/Switzerland/Arosa/Tschuggen%20Bergoase/																							
creation date	2003-2006																							
purpose	utility, spa																			1				
w. influence	utility functions, material, decoration							1	1	1														
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 58-61.; http://www.botta.ch/Page/Re%202006_476_Arosa_en%20(Pu).php, 28.01.2019r.																							
111	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SAN CARLINO**																							
location	**Lake Lugano, Switzerland**																							
author	**MARIO BOTTA**																							
illustration	http://www.proholz.at/fileadmin/proholz/media/zuschnitt/1-San-Carlino-photo-Enrico-Cano.jpg																							
creation date	1999																							
purpose	exhibition																			1				
w. influence	environment																							
relation to w.	on the water, on the platform													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 54-57.; http://www.botta.ch 28.01.2019r.																							
112	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HAUS H.**																							
location	**Lake Aussee, Blindenmarkt, Austria**																							
author	**ERNST BENEDER**																							
illustration	http://spiluttini.azw.at/imgwrapper.php?area=big&id=46932																							
creation date	1994																							
purpose	residential																		1					
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 50-53.; http://spiluttini.azw.at/imgwrapper.php?area=big&id=46932, 28.01.2015r.																							
113	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SPA BATHS**																							
location	**Bad Aibling, Austria**																							
author	**BEHNISCH ARCHITEKTEN**																							
illustration	http://behnisch.com/projects/190																							
creation date	2003-2007																							
purpose	utility, spa																			1				
w. influence	utility functions, material							1	1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 46-49.; http://behnisch.com/projects/190, 28.01.2015r.																							

115	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HEINER-METZGER-PLATZ**																							
location	**Neu-Ulm, Germany**																							
author	**ATELIER DREISEITL**																							
illustration	http://www.schick-gartengestaltung.de/Meine%20Galerie/h_m_platz/img/heiner_metzger_platz%20(70).JPG.jpg																							
creation date	2004-2005																							
purpose	utility, exhibition																			1				
w. influence	inspiration, ecological, material, decoration	1		1					1	1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 38-41.; Ipsen D. (2005) Towards a new water culture. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp. 140-143, 173																							

116	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**NATIONAL GRAND THEATHER OF CHINA**																							
location	**Beijing, China**																							
author	**PAUL ANDREU ARCHITECTE**																							
illustration	http://bi.gazeta.pl/im/0/6489/z6489230Q.jpg																							
creation date	1999-2007																							
purpose	utility																			1				
w. influence	inspiration, material	1	1						1															
relation to w.	on the water, founded on the bottom													1										
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 34-37.; http://www.paul-andreu.com/pages/galerie%20défilante/86-National%20Grand%20Theatre/galerie_Beijing/galerie_Beijing_0_gb.html ; http://www.paul-andreu.com/pages/pages%20fiches/86-National%20Grand%20Theatre.html, 28.01.2015r.																							

117	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LANGEN FOUNDATION**																							
location	**Neuss, Germany**																							
author	**TADAO ANDO**																							
illustration	http://en.wikipedia.org/wiki/Langen_Foundation#mediaviewer/File:Langen_Foundation.jpg																							
creation date	2004																							
purpose	utility, museum																			1				
w. influence	inspiration, material		1						1															
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann, 2008, pp. 30-33.; http://www.tadao-ando.com/bio_worksE.html;																							

118	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE PALM ISLANDS: THE PALM JUMEIRAH, THE PALM JEBEL ALI, THE PALM DEIRA; THE WORLD**																							
location	**Dubai, United Arab Emirates**																							
author	**AL. NAKHEEL PROPERTIES**																							
illustration	https://bestindubai.files.wordpress.com/2011/12/1.jpg																							
creation date	2001-2006; 2002-2007; od 2004; 2003-2005																							
purpose	utility-residential																		1	1				
w. influence	utility functions, challenge, environment				1	1																		
relation to w.	artificial islands													1			1							
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 24-29.; Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 40-43 ; http://pl.wikipedia.org/wiki/Wyspy_Palmowe ; http://www.eikongraphia.com/?p=223, 28.01.2015r.																							

120	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CYBERHELVETIA**																							
location	**Biel-Bienne, Switzerland**																							
author	**3DELUXE**																							
illustration	http://architizer.com/projects/cyberhelvetia/																							
creation date	2002																							
purpose	exhibition																			1				
w. influence	inspiration	1		1						1														
relation to w.	on land without contact with water											1												
impl. phase	implemented																					1		
source	Fischer J., „Wasser| Eau| Water", series Architecture Compact, h.f. Ullmann , 2008, pp. 14-19; http://architizer.com/projects/cyberhelvetia/ , 28.01.2019 r.																							

121	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TANNER SPRINGS park**																							
location	**Portland, Oregon, USA**																							
author	**ATELIER DREISEITL, HERBERT DREISEITL, GREENWORKS, PC**																							
illustration	https://i.pinimg.com/236x/5f/5a/2b/5f5a2b86c18be3bab0d51ce8769119bc--oregon-usa-portland-oregon.jpg																							
creation date	2004-2005																							
purpose	utility, park																			1				
w. influence	decoration, ecological									1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Woodward R. (2005) Water in landscape .[w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp. 12-17. 166 ; http://www.dreiseitl.com/index.php?id=54&lang=den ; 29.01.2015 r.																							
124	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WATERCOURSE AT HERNE-SODINGEN ACADEMY**																							
location	**Herne, Germany**																							
author	**ATELIER DREISEITL, JOURDA ARCHITECTS, HHS PLANER UND ARCHITEKTEN**																							
illustration	https://aedesign.files.wordpress.com/2010/01/c554a13bc0.jpg																							
creation date	1999																							
purpose	utility, water installation running through the academy courtyard																			1				
w. influence	decoration,									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Woodward R. (2005) Water in landscape .[w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp. 23-29, 166;																							
126	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**INTEGRATED WATER DESIGN FOR ING BANK-VIVALDI TOWER**																							
location	**Amsterdam, Netherlands**																							
author	**NORMAN FOSTER AND PARTNERS**																							
illustration	http://www.architravel.com/architravel_wp/wp-content/uploads/2013/05/vivaldi_big_3.jpg																							
creation date	2005-2007																							
purpose	utility																				1			
w. influence	inspiration, ecology: storage of rainwater, cooling of the building, saving, natural cleansing of the pond, technology, decoration		1							1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Woodward R. (2005) Water in landscape .[w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp. 36-37, 167																							
128	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**POTSDAMER PLATZ**																							
location	**Berlin, Germany**																							
author	**ATELIER DREISEITL, RENZO PIANO, CHRISTOPH KOHLBECKER**																							
illustration	https://www.greenroofs.com/wp-content/uploads/2018/09/potsdamer_platz3.jpg																							
creation date	1997-1998																							
purpose	utility, square public																			1				
w. influence	decoration, ecology: water retention									1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Dreiseitl H. (2005) Water is universal. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp.46-51, 167 ; http://www.dreiseitl.com/ext/cmp_content_gallery/925.jpg , 29.01.2015 r.																							
132	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BEAR ENCLOSURE AT ZOO ZURICH**																							
location	**Zurich, Switzerland**																							
author	**BÜRO WALTER VETSCH, ATELIER DREISEITL**																							
illustration	Dreiseitl H. (2005) Water is universal. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp.66-67, 168 ;																							
creation date	1995-1997																							
purpose	utility																			1				
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Dreiseitl H. (2005) Water is universal. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp.66-67, 168 ;																							

135	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HOUSING ESTATE ARKADIEN ASPERG**																							
location	**Asperg, Sttutgart, Germany**																							
author	**ATELIER DREISEITL, JOACHIM EBLE ARCHITEKTUR**																							
illustration	http://www.landezine.com/index.php/2013/04/arkadien-winnenden-by-atelier-dreiseitl/																							
creation date	2001-2003																							
purpose	recreation, playground																			1				
w. influence	decoration, ecology: collection of rainwater, reuse for washing and watering									1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Dreiseitl H. (2005) Water is universal. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp.72-73, 169																							
138	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**RAINWATER RETENTION ON THE KRONSBERG**																							
location	**Hannover, Germany**																							
author	**ATELIER DREISEITL**																							
illustration	http://www.urbangreenbluegrids.com/uploads/002-Kronsberg-001-Dreiseitl-1300x650.jpg																							
creation date	1999-2000																							
purpose	water art																			1				
w. influence	technology, ecology: storage of rainwater										1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Geiger W.F. (2005) Think global, act local. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp.82-85, 169																							
139	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE SCHARNHAUSER park**																							
location	**Ostfildern, Germany**																							
author	**ATELIER DREISEITL; Gerhard Hauber**																							
illustration	https://ramboll.com/-/media/images/rde/water/stu/scharnhauser-park/scharnhauser-park-liveability-1360x765.jpg?mw=640																							
creation date	1996-2003																							
purpose	recreation, park																			1				
w. influence	technology, ecology, decoration									1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Geiger W.F. (2005) Think global, act local. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp.86-89, 170 ; http://www.ramboll.com/projects/germany/scharnhauser-park , 29.01.2019.																							
143	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**GREEN ROOF FOR CHICAGO CITY HALL**																							
location	**Chicago, USA**																							
author	**ATELIER DREISEITL, CONSERVATION DESIGN FORUM, McDonough + Partners**																							
illustration	https://land8.com/wp-content/uploads/2015/03/Chicago_Green-Roof_c-Mark-Farina_104.jpg																							
creation date	2000-2001																							
purpose	utility, bioactive roof																			1				
w. influence	ecology										1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Geiger W.F. (2005) Think global, act local. [w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp.102-103, 170																							
148	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ALNA RiVER**																							
location	**Hølaløkka, Oslo, Norway**																							
author	**ATELIER DREISEITL, 13.3 MULTICONSULT**																							
illustration	http://no.wikipedia.org/wiki/Hølaløkka#mediaviewer/File:Holalokka1.JPG																							
creation date	2004-2005																							
purpose	water purification system																			1				
w. influence	ecology										1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Schwenk W. (2005). Water as an open system.[w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp. 118-119, 171																							

150	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MCLAREN PARAGON**																							
location	**London, UK**																							
author	**Foster + Partner**																							
illustration	https://www.fosterandpartners.com/projects/mclaren-technology-centre/																							
creation date	2002-2004																							
purpose	utility																			1				
w. influence	ecology, material								1		1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Schwenk W. (2005). Water as an open system.[w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp. 124-125, 172; http://www.dreiseitl.com/index.php?id=88&lang=en, 29.01.2015.																							
151	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CENTER OF EXCELLENCE**																							
location	**Stuttgart, Germany**																							
author	**Kohlbecker Architects & Engineers**																							
illustration	https://ramboll.com/-/media/images/rde/buildings/abc/center-of-excellence-page-picture-1360x765.jpg																							
creation date	2001-2002																							
purpose	utility																				1			
w. influence	material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Schwenk W. (2005). Water as an open system.[w] Dreiseitl H., Grau D. (red) New waterscapes. Birkhauser, pp. 126-127, 172; http://www.dreiseitl.com/index.php?id=87&lang=en, 29.01.2015.																							
158	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MEETING SLIDES**																							
location	**Lapland, Finland**																							
author	**WILLIAMS & TSIEN; CARSTEN HÖLLER**																							
illustration	http://www.fungcollaboratives.org/projects/past/the-snow-show-finland/artists/carsten-holler-tod-williams-billie-tsien/image-grid/																							
creation date	2003-2004																							
purpose	exhibition																			1				
w. influence	building material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		1
source	Fung L. (2005) The Snow Show. Thames and Hudson. New York. pp. 12-19, http://www.fungcollaborativepp.org/projects/past/the-snow-show-finland/artists/carsten-holler-tod-williams-billie-tsien/image-grid/ , 29.01.2015.																							
159	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ABSOLUTE ZERO: A LIGHT HOUSE OF TEMPORALITY**																							
location	**Kemi, Finland**																							
author	**OSMO RAUHALA; ASYMPTOTE**																							
illustration	http://www.fungcollaboratives.org/projects/past/the-snow-show-finland/artists/osmo-rauhala-asymptote/image-grid/																							
creation date	2003																							
purpose	exhibition																			1				
w. influence	building material, challenge								1															
relation to w.	on land											1					1							
impl. phase	implemented																					1		1
source	Fung L. (2005) The Snow Show. Thames and Hudson. New York. pp. 20-27; Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 140-141; http://www.fungcollaborativepp.org/projects/past/the-snow-show-finland/artists/osmo-rauhala-asymptote/image-grid/, 29.01.2019.																							
160	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE MORPHIC EXCESS OF THE NATURAL/ LANDSCAPE IN EXCESS**																							
location	**Lapland, Finland**																							
author	**EVA ROTHSCHILD; ANAMORPHOSIS**																							
illustration	http://www.fungcollaboratives.org/projects/past/the-snow-show-finland/artists/eva-rothschild-anamorphosis/image-grid/																							
creation date	2003-2004																							
purpose	exhibition, natural theatre																			1				
w. influence	building material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		1
source	Fung L. (2005) The Snow Show. Thames and Hudson. New York. pp. 28-35, http://www.fungcollaborativepp.org/projects/past/the-snow-show-finland/artists/eva-rothschild-anamorphosis/image-grid/ ,																							

166	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CARESS ZAHA WITH VIDKA/ICEFIRE**																							
location	**Kemi, Finland**																							
author	**CAI GUO-QIANG, ZAHA HADID**																							
illustration	http://www.fungcollaboratives.org/projects/past/the-snow-show-finland/artists/cai-guo-qiang-zaha-hadid/image-grid/																							
creation date	2004																							
purpose	exhibition																			1				
w. influence	building material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		1
source	Fung L. (2005) The Snow Show. Thames and Hudson. New York. pp. 76-83; Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 138-139; http://www.fungcollaborativepp.org/projects/past/the-snow-show-finland/artists/cai-guo-qiang-zaha-hadid/image-grid/ , 30.01.2019.																							

167	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**OBLONG VOIDSPACE**																							
location	**Rovaniemi, Finland**																							
author	**JENE HIGHSTEIN, STEVEN HOLL**																							
illustration	http://www.fungcollaboratives.org/projects/past/the-snow-show-finland/artists/jene-highstein-steven-holl/image-grid/																							
creation date	2003																							
purpose	exhibition																			1				
w. influence	building material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		1
source	Fung L. (2005) The Snow Show. Thames and Hudson. New York. pp. 84-91; Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 136-137; http://www.fungcollaborativepp.org/projects/past/the-snow-show-finland/artists/jene-highstein-steven-holl/image-grid/ , 30.01.2019r.																							

186	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE SWIMMING POOL**																							
location	**La Jolla, California, USA**																							
author	**KEN RONCHETTI**																							
illustration	http://ecx.images-amazon.com/images/I/4107WA7VKRL._AA300_.jpg																							
creation date	1990																							
purpose	pool, spa																		1					
w. influence	utility functions, decoration, material				1			1	1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Baldon C.,Melchior I. & Levick, M. (1997) Reflections on the pool. California designs for swimming. Rizzoli, New York., pp.60-63 ,																							

189	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Montalbán House**																							
location	**Los Angeles, USA**																							
author	**RICARDO LEGORRETA**																							
illustration	https://s-media-cache-ak0.pinimg.com/736x/53/6b/4c/536b4cb8fc5a1e8b87861f314a8b58c6.jpg																							
creation date	1985																							
purpose	pool																		1					
w. influence	material, decoration, utility				1				1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Baldon C.,Melchior I. & Levick, M. (1997) Reflections on the pool. California designs for swimming. Rizzoli, New York., pp. 74-77;																							

200	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**POOL WITH A VIEW: LOBO CANYON**																							
location	**Santa Monica Mountains, California, USA**																							
author	**CAMPBELL&CAMPBELL-LEAH&PAUL CULBERG**																							
illustration	http://photos1.zillowstatic.com/p_h/IS-lrvz00dcfm1p.jpg																							
creation date	1993																							
purpose	pool																		1					
w. influence	utility functions				1																			
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Baldon C.,Melchior I. & Levick, M. (1997) Reflections on the pool. California designs for swimming. Rizzoli, New York., pp. 126-127, http://photos1.zillowstatic.com/p_h/IS-lrvz00dcfm1p.jpg, 30.01.2015.																							

215	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TROLL A - OFFSHORE GAS PRODUCTION PLATFORM**																							
location	**80 km northwest of Bergen, Norway**																							
author	**NORWEGIAN CONTRACTORS FOR NORSKE SHELL**																							
illustration	http://en.wikipedia.org/wiki/Troll_A_platform																							
creation date	1991-1995																							
purpose	utility, gas production platform																				1			
w. influence	technical challenge, environment																							
relation to w.	at the water, located on the bottom													1			1							
impl. phase	implemented																					1		
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 20-21;																							

217	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ALUMINIUM FOREST**																							
location	**Houten, Netherlands**																							
author	**MICHA DE HAAS**																							
illustration	https://archello.com/project/aluminium-centrum																							
creation date	1997-2001																							
purpose	utility																				1			
w. influence	environment																							
relation to w.	at the water on the columns													1			1							
impl. phase	implemented																					1		
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 26-27																							

221	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LUCHAO HARBOUR CITY**																							
location	**Shanghai, China**																							
author	**MEINHARD VON GERKAN (VON GERKAN, MARG UND PARTNER)**																							
illustration	http://www.newtowninstitute.org/newtowndata/NTimages/Lingang-130404-1_15.jpg																							
creation date	2002-2005 - 1st stage of construction finished																							
purpose	ideal radiating city																		1	1				
w. influence	utility functions, environment, challenge				1	1																		
relation to w.	on the water, wharf, on land											1	1	1			1							
impl. phase	implemented																					1		
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 34-35																							

222	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ARCHE SAYA**																							
location	**Saya de Malha Bank, Indian Ocean**																							
author	**WOLF HILBERTZ**																							
illustration	ak0.pinimg.com/236x/2e/ca/70/2eca708cf1d88c23563a8ca3d1302c32.jpg																							
creation date	since 1997																							
purpose	bio-rock city																		1	1				
w. influence	utility functions, environment				1	1																		
relation to w.	on the water, under the water													1		1	1							
impl. phase	concept design																						1	
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 36-37;																							

223	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HOTEL LE MERIDIEN**																							
location	**Bora Bora, French Polynesia**																							
author	**JEAAN HUGUES TRICARD, DL2 DIDIER LEFORT ARCHITECTES ASSOCIÈS**																							
illustration	http://neukaledonien.de/image/Le_Meridien_Bora_Bora/Le_Meridien_Bora_Bora_01.jpg																							
creation date	1998																							
purpose	utility																			1				
w. influence	utility functions, environment				1																			
relation to w.	on the water on stilts, on the island												1	1										
impl. phase	implemented																					1		
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 38-39																							

227	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**AYABE COMMUNITY CENTER**																							
location	**Ayabe-shi, Kyoto, Japan**																							
author	**TADAO ANDO**																							
illustration	http://www.geocities.ws/arquique/ando/grandes/atac02.jpg																							
creation date	1993-1995																							
purpose	utility																			1				
w. influence	material								1															
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2000) Tadao Ando 1983-2000. El Croquis 44+58, Madrid.;																							

235	Data and Description
object	**WATER DWELLING**
location	**Amsterdam, Netherlands**
author	**MARLIES ROHMER**
illustration	https://assets-prod.lhsenv.com/images/gallery/8601439-00.png
creation date	design 2001-2003
purpose	residential
w. influence	environment
relation to w.	floating on the water
impl. phase	concept design
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 66-67

formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
																	1					
													1									
																					1	

256	Data and Description
object	**JULES' UNDERSEA LODGE**
location	**Key LARGO, Florida, USA**
author	**IAN KOBLICK, NEIL MONNEY**
illustration	http://www.unusualhotelsoftheworld.com/Images/Hotels/Big/JulesUnderseaLodge633819489266028817_big.jpg
creation date	since 1985
purpose	underwater hotel
w. influence	environment
relation to w.	under the water
impl. phase	implemented
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 106-107;

formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
														1				1				
																				1		1

257	Data and Description
object	**HYDROPOLIS**
location	**Dubai, United Arab Emirates**
author	**JOACHIM HAUSER**
illustration	https://www.greenprophet.com/wp-content/uploads/2011/11/hydropolis-dubai-560x396.jpg
creation date	2004-2007
purpose	underwater hotel
w. influence	environment
relation to w.	under the water and on the water
impl. phase	implemented
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 108-109

formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
																		1				
												1		1	1							
																					1	

262	Data and Description
object	**OTTER INN**
location	**Lake Mälaren, Vasterås, Sweden**
author	**MIKAEL GENBERG**
illustration	http://www.privateislandsonline.com/uploads/1121/image_0ea49c4c1f.jpg
creation date	2000
purpose	floating summer house with underwater observatory
w. influence	utility functions, environment
relation to w.	floating on the water, under the water
impl. phase	implemented
source	Burchard C., Flesche F. (2005) Water House. Prestel Verlag, Munich, Berlin, London, New York. pp. 120-121

formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
				1													1					
													1	1								
																				1		1

285	Data and Description
object	**PUENTE LA BARQUETA**
location	**Seville, Spain**
author	**JUAN J. ARENAS DE PABLO, MARCOS J. PANTALEÓN**
illustration	https://files1.structurae.de/files/photos/2055/img_5280.jpg
creation date	1989-1992
purpose	arch bridge with a suspended road
w. influence	technical challenge
relation to w.	obstacle
impl. phase	implemented
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 104-107; http://edlo.es/sevilla/puentes/edlo_puente-barqueta-2_Sevilla.jpg, 01.02.2015r.

formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
															1							
															1							
																				1		

286	Data and Description
object	**PONT DE NORMANDIE**
location	**La Havre, France**
author	**MICHEL VIRLOGEUS, FRANÇOIS DOYELLE, CHARLES LAVIGNE, BRICE GIRARD**
illustration	http://blog.eavs-groupe.com/wp-content/uploads/2014/07/voubrPy77OOXDSGzDUX3mWVXbvg.jpg
creation date	1992-1995
purpose	cable-stayed bridge
w. influence	technical challenge
relation to w.	obstacle
impl. phase	implemented
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 108-115

formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
																1						
															1							
																				1		

287	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**AKASHI KAIKYO BRIDGE**																							
location	**Akashi, Japan**																							
author	**HONSHU SHIKOKU BRIDGE AUTHORITY**																							
illustration	http://www.nssmc.com/en/product/use/case/bridge/images/akashi_ph01.jpg																							
creation date	1989-1999																							
purpose	hanging bridge																	1						
w. influence	technical challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 118-119; http://www.nssmc.com/en/product/use/case/bridge/images/akashi_ph01.jpg, 01.02.2015.																							
290	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**GREAT BELT LINK**																							
location	**between the islands of Funen and Zealand, Denmark**																							
author	**DISSIN+WEITLING**																							
illustration	https://www.storebaelt.dk/files/inline-images/luftfoto-oestbro.jpg																							
creation date	1991-1998																							
purpose	cable-stayed bridge																	1						
w. influence	technical challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 126-131																							
291	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ØRESUND BRIDGE**																							
location	**Øresund Strait, Denmark-Sweden**																							
author	**GEORG ROTNE**																							
illustration	http://tenspeedhero.com/wp-content/uploads/Bridge_3.jpg																							
creation date	1995-2000																							
purpose	bridge with truss structure																	1						
w. influence	technical challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 132-135; http://tenspeedhero.com/wp-content/uploads/Bridge_3.jpg, 01.02.2015.																							
293	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ERASMUS BRIDGE**																							
location	**Rotterdam, Netherlands**																							
author	**BEN VAN NERKEL**																							
illustration	http://broer.no/bro/b/b4_2.jpg																							
creation date	1994-1996																							
purpose	cable-stayed bridge																	1						
w. influence	technical challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 140-143; http://broer.no/bro/b/b4_2.jpg, 01.02.2015.																							
294	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**PUENTE VASCO DE GAMA**																							
location	**Lisbon, Portugal**																							
author	**MICHEL VIRLOGEUX**																							
illustration	http://vueloslisboa.org/wp-content/uploads/2010/08/ponte_vasco_da_gama.jpg																							
creation date	1995-1998																							
purpose	cable-stayed bridge																	1						
w. influence	technical challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 144-147																							
295	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**KIEL HÖRN FOOTBRIDGE**																							
location	**Kiel, Germany**																							
author	**JÖRG SCHLAICH, VOLKWIN MARG**																							
illustration	http://www.sbp.de/system/attachments/project_images/2818/xlarge_1612_65_d.jpg?1328621700																							
creation date	1997																							
purpose	drawbridge																	1						
w. influence	technical challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 152-157; http://www.sbp.de/system/attachments/project_images/2818/xlarge_1612_65_d.jpg?1328621700, 01.02.2015.																							

298	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LA MUJER FOOTBRIDGE**																							
location	**Buenos Aires, Argentina**																	1						
author	**SANTIAGO CALATRAVA**																1							
illustration	https://farm3.staticflickr.com/2551/5717252013_54c1d02e02.jpg																					1		
creation date	2002																							
purpose	cable-stayed bridge																							
w. influence	technical challenge																							
relation to w.	obstacle																							
impl. phase	implemented																							
source	Perino A. S., Faraggiana G. (2004) Bridges. White Star, Italy., pp. 178-179																							

299	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LÄNSISATAMANKATU BRIDGE**																							
location	**Helsinki, Finland**																	1						
author	**CEZARY M. BEDNARSKI**																1							
illustration	http://studio-bednarski.com/HELSI.php																							
creation date	design June 2001- May 2002																							
purpose	cable-stayed bridge																							
w. influence	challenge																							
relation to w.	obstacle																							
impl. phase	concept design																							
source	Bednarski C. (2002) Na mosty… Bednarski. Jak zbudować most w dziesięciu ruchach., rozmowę przepr. Schwab D. H. [w] Loegler R. (red) Architektura & Biznes nr 06. Kraków ; http://studio-bednarski.com/HELSI.php, 01.02.2015.																							

300	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MONOLITH**																							
location	**Morat, Switzerland**																							
author	Jean Nouvell																							
illustration	www.jeannouvel.com/en/desktop/home/#/desktop/design/morat-switzerland-expo-21																							
creation date	1999-2002																							
purpose	exhibition, utility																			1				
w. influence	environment																							
relation to w.	at the water space														1									
impl. phase	implemented																					1		
source	www.jeannouvel.com/en/desktop/home/#/desktop/design/morat-switzerland-expo-21																							

301	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HADRIAN'S MILLENIUM BRIDGE**																							
location	**Carlisle, UK**																	1						
author	**CEZARY M. BEDNARSKI**																1							
illustration	http://studio-bednarski.com/CARLSL.php																							
creation date	design 1998-2000																							
purpose	modern bridge																							
w. influence	challenge																							
relation to w.	obstacle																							
impl. phase	concept design																							
source	Bednarski C. (2002) Na mosty… Bednarski. Jak zbudować most w dziesięciu ruchach., rozmowę przepr. Schwab D. H. [w] Loegler R. (red) Architektura & Biznes nr 06. Kraków																							

303	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**DOWNSTREAM MILLENNIUM BRIDGE "STEEL ART BEAM"**																							
location	**Maidstone, UK**																	1						
author	**CEZARY M. BEDNARSKI**																1							
illustration	http://studio-bednarski.com/MAIDST.php																					1		
creation date	2001																							
purpose	footbridge																							
w. influence	challenge																							
relation to w.	obstacle																							
impl. phase	implemented																							
source	Bedbarski C. (2002) Na mosty… Bednarski. Jak zbudować most w dziesięciu ruchach., rozmowę przepr. Schwab D. H. [w] Loegler R. (red) Architektura & Biznes nr 06. Kraków; http://studio-bednarski.com/MAIDST.php, 02.02.2019.																							

304	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Nemo 33**																							
location	**Brussels, Belgium**																			1				
author	no data																							
illustration	http://www.nemo33.com/fr/galerie-photos																							
creation date	2004																							
purpose	recreation, utility, diving pool																							
w. influence	environment, utility functions				1																			
relation to w.	under the water, on land											1				1								
impl. phase	implemented																					1		
source	http://www.nemo33.com																							

305	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Y-40**																							
location	**Montegrotto, Padova, Italy**																							
author	no data																							
illustration	https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcTtoyPeYM-pt_RlKi4CPPRQldORXkrSTkFXtV_tD7j2oE_PGhC9Mw																							
creation date	2014																							
purpose	recreation, utility, diving pool																			1				
w. influence	environment, utility functions				1																			
relation to w.	under the water, on land											1				1								
impl. phase	implemented																					1		
source	https://www.y-40.com/en/																							
306	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ENNEÜS HEERMABRUG**																							
location	**Amsterdam, Netherlands**																							
author	**NICHOLAS GRIMSHAW&PARTNERS LTD**																							
illustration	http://upload.wikimedia.org/wikipedia/commons/d/dd/Enneus-heermabrug.jpg																							
creation date	2001																							
purpose	bridge																	1						
w. influence	challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Bukowy C. (2002) Na mosty… Bednarski. praMOnSTrum w Amsterdamie. [w] Loegler R. (red) Architektura & Biznes nr 06. Kraków																							
307	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**KOTLARSKI BRIDGE**																							
location	**Cracow, Poland**																							
author	**Witold Gawłowski STUDIO ARCHI 5**																							
illustration	http://images.photo.bikestats.eu/zdjecie,600,76641,20091104,bridge-kotlarski.jpg																							
creation date	October 2000 - December 2001																							
purpose	bridge																	1						
w. influence	challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Motak M. (2002) Nowe mosty w Krakowie.[w] Loegler R. (red) Architektura & Biznes nr 06. Kraków;																							
309	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ŚWIĘTOKRZYSKI BRIDGE**																							
location	**Warsaw, Poland**																							
author	**KONSORCJUM BMJ GROUP, ANDRZEJ CZAPSKI**																							
illustration	%9Awi%C4%99tokrzyski_-_panoramio_-_Mister_No.jpg/1280px-Most_%C5%9Awi%C4%99tokrzyski_-_panoramio_-_Mister_No.jpg																							
creation date	September 1998 - October 2000																							
purpose	cable-stayed bridge																	1						
w. influence	challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Kaczorowska M. (2002) mosty warszawskie.[w] Loegler R. (red) Architektura & Biznes nr 06. Kraków; Pulkkinen P. (2001) most Świetokrzyski. Rozmowa z Pekką Pulkkinenem, współprojektantem warszawskiej przeprawy., rozmowę przepr. Gadomska B.[w] Porębska E.P. (red) Architektura murator nr 01. Warszawa;																							
310	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MILLAU VIADUCT**																							
location	**France**																							
author	**SETRA, FOSTER&PARTNERS**																							
illustration	http://s2.flog.pl/media/foto/kamlot_3cb79e24b407508715c1ebfc9fc6d519.jpg																							
creation date	2001-2004																							
purpose	viaduct																	1						
w. influence	challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	ML. (2006) Na granicy możliwości - viaduct Millau we Francji, mosty Gateshead w Wielkiej Brytanii, Rion Antirion w Grecji, Tsinng Ma w Hongkongu.[w] Porębska E.P. (red) Architektura murator nr 06. Warszawa;																							

317	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**RENOVATION OF A MANOR HOUSE ON MAJORCA**																							
location	**Majorca, Spain**																							
author	**B.B.&W ESTUDIO DE ARQUITECTURA, SERGI BASTIDAS, WOLF SIEGFRIED WAGNER**																							
illustration	http://bastidasarchitecture.com/es/proyecto/479/destacados/codigo-ba-14-reforma-y-rehabilitacion-posesion-mallorquina-zona-pla-de-mallorca.html																							
creation date	1996																							
purpose	residential, pool																		1					
w. influence	utility functions				1																			
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Feierabend P. (2003) Pools. Feierabend Verlag OHG. Berlin., pp.28-31, 174																							
327	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Pool**																							
location	**Marseille, France**																							
author	**RUDY RICCIOTTI**																							
illustration	http://design-flute.com/wp-content/uploads/2007/08/rudi-ricciotti2.gif																							
creation date	1998																							
purpose	pool																		1					
w. influence	material				1				1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Feierabend P. (2003) Pools. Feierabend Verlag OHG. Berlin., pp.68-71, 174; http://www.rudyricciotti.com/maisons-particulieres/marseille#!2																							
338	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CASA NA XEMENA**																							
location	**Ibiza, Spain**																							
author	**RAMON ESTEVE**																							
illustration	https://www.ramonesteve.com/en/pro/architecture-en/residential/na-xemena-house/																							
creation date	1997-2001-2003																							
purpose	pool																		1					
w. influence	utility functions, decoration				1				1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Feierabend P. (2003) Pools. Feierabend Verlag OHG. Berlin., pp.108-113, 175; http://www.ramonesteve.com/wp-content/uploads/ 2015/01/casa-muebles-exterior-diseno.jpg, 05.02.2015.; http://www.ramonesteve.com/proyecto/casa-na-xemena/																							
342	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HOTEL CARAVAN SERAI**																							
location	**Marrakech, Morocco**																							
author	**CHARLES BOCCARA**																							
illustration	http://blog.blanee.com/wp-content/uploads/2010/12/Caravan-Serai-2.jpg																							
creation date	2001																							
purpose	utility, pool																			1				
w. influence	utility functions, decoration				1					1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Feierabend P. (2003) Pools. Feierabend Verlag OHG. Berlin., pp.124-129, 175																							
344	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**KATLEMAN RESIDENCE-BETWEEN TWO WATERS**																							
location	**Los Angeles, California, USA**																							
author	**MARMOL & RADZINER**																							
illustration	http://www.marmol-radziner.com/restoration/katleman-residence																							
creation date	1999																							
purpose	residential, pool																		1					
w. influence	utility functions, decoration				1					1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Feierabend P. (2003) Pools. Feierabend Verlag OHG. Berlin., pp.132-135, 175																							
345	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**PRIVATE RESIDENCE - SCORPION HOUSE**																							
location	**Scottsdale, Arizona, USA**																							
author	**JONES STUDIO, INC.**																							
illustration	http://jonesstudioinc.com/project/scorpion-house/																							
creation date	2002																							
purpose	pool																		1					
w. influence	utility functions, decoration				1				1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Feierabend P. (2003) Pools. Feierabend Verlag OHG. Berlin., pp.136-139, 175																							

351	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Pool**																							
location	**La Cadière d'Azur, France**																							
author	**RUDY RICCIOTI**																							
illustration	https://rudyricciotti.com/projet/la-cadiere-dazur#!/rudyricciotti.com/wp																							
creation date	1999																							
purpose	pool																		1					
w. influence	utility functions, material				1				1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Feierabend P. (2003) Pools. Feierabend Verlag OHG. Berlin., pp.160-163, 175																							
353	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TAGOMAGO VILLA**																							
location	**Ibiza, Spain**																							
author	**CARLOS FERRATER & JOAN GUIBERNAU**																							
illustration	http://wp.ferrater.com/?oab_proyecto=casa-tagomago&idioma=_en# ; http://wp.ferrater.com/wp-content/uploads/2013/02/P_VU_TAGOMAGO_F03-1200x806.jpg																							
creation date	1999-2001																							
purpose	pool																		1					
w. influence	utility functions, material, decoration				1				1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Feierabend P. (2003) Pools. Feierabend Verlag OHG. Berlin., pp.166-169, 175																							
356	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE PARK ON THE SOMME AT AMIENS**																							
location	**Amiens, France**																							
author	**JAQUELINE OSTY**																							
illustration	http://www.osty.fr/projects/4637362#22																							
creation date	1992-1994																							
purpose	recreation, park																			1				
w. influence	ecology										1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Osty J. (2002) Park an der Somme, Amines. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin.; http://www.osty.fr/projects/4637362#22, 05.02.2015.																							
358	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**OPEN SPACE AT UNI-BANK**																							
location	**Copenhagen, Denmark**																							
author	**HENNING LARSENS TEGNESTUE, SVEN-INGVAR ANDERSSON**																							
illustration	http://manchesterhistory.net/architecture/2000/nordea7.jpg																							
creation date	2000																							
purpose	recreation, public square																			1				
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Sven-Ingvar A. (2002) Eine neue Uferpromenade für Christianshavn. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin.																							
360	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WATER CRATER AT THE REGIONAL GARDEN SHOW 2000**																							
location	**Westphalia, Germany**																							
author	**AGENCE TER, PARIS(HENRI BAVA, OLIVIER PHILIPPE, MICHEL HOESSLER) Z ALEXANDER BÖLK**																							
illustration	https://farm6.staticflickr.com/5269/5891843366_dbd510f82e.jpg																							
creation date	1999-2000																							
purpose	recreation, water crater																			1				
w. influence	inspiration,	1		1																				
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Bava H. (2002) Magisches Wasser in Ostwestfalen. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin.																							

361	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LA DEHESA DEL SALER, THE COASTAL ZONE OF LA ALBUFERA**																							
location	**Valencia, Spain**																							
author	**ALFRED FERNÁNDEZ DE LA REGUERA, IGNACIO SALVANS, JORDI SOLÈ**																							
illustration	http://www.via-arquitectura.net/10/10-076.htm																							
creation date	1999																							
purpose	recreation, including a reserve of naturally formed coastline, stopping urbanization, improving the area: new sidewalks, promenade, creation of flood plains																			1				
w. influence	environment				1						1													
relation to w.	on land												1											
impl. phase	implemented																					1		
source	Fernandez de la Reguera A., Salvans I., Solé J. (2002) La Dehesa del Saler-die Küstenzone La Albufera, Valencia. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin.; http://www.via-arquitectura.net/10/10-076.htm, 05.02.2015.																							

364	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Square DES TERREAUX**																							
location	**Lyon, France**																							
author	**CHRISTIAN DREVET**																							
illustration	https://news.artnet.com/app/news-upload/2015/08/lyon-place-terreaux-buren-1.jpg																							
creation date	April - December 1994																							
purpose	utility, public square																			1				
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Drevet C. (2002) squaree des Terreaux, Lyon. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin																							

365	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE SQUARE OF HUMAN RIGHTS AT EVRY**																							
location	**Evry, France**																							
author	**KATHRYN GUSTAFSON**																							
illustration	http://www.publishedart.com.au/images/landscape/big_movinghorizons.jpg																							
creation date	1991																							
purpose	utility, public square																			1				
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Gustafson K. (2002) Platz der Menschenrechte in Evry. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin.																							

366	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Promenade**																							
location	**Barceloneta, Barcelona, Spain**																							
author	**JAUME ARTIGUES, JORDI HENRICH, MIQUEL ROIG, OLGA TARRASO, ANNA M. CASTAÑEDA**																							
illustration	http://www.jaumeartigues.com/projectesiobres.php?id=16																							
creation date	1994-1995																							
purpose	utility, promenade																			1				
w. influence	environment																							
relation to w.	waterfront												1											
impl. phase	implemented																					1		
source	Tullio M. C. (2002) Barceloneta: ein neuer Horizont. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin																							

368	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**DENMARK PARK**																							
location	**Malmö, southern Sweden**																							
author	**THORBJÖRN ANDERSSON AND PEGE HILLINGE, FFNS ARCHITECTS**																							
illustration	https://www.archdaily.com/778062/dania-park-sweco-architects-plus-thorbjorn-andersson/565ce7f0e58ece70b6000068-dania-park-sweco-architects-plus-thorbjorn-andersson-sketch																							
creation date	2001																							
purpose	recreation, entertainment park																			1				
w. influence	utility functions, environment				1																			
relation to w.	waterfront, at the water - jetties												1	1										
impl. phase	implemented																					1		
source	Persson A. (2002) Malmö rückt näher ans Meer. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin																							

369	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ANCHOR PARK**																							
location	**Malmö, southern Sweden**																							
author	**STIG L. ANDERSSON**																							
illustration	http://www.landezine.com/wp-content/uploads/2010/09/anchor-park-malmo-stig-andersson-05.jpg																							
creation date	2001																							
purpose	recreation, park																			1				
w. influence	ecology, decoration									1	1													
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Andersson S. L. (2002) Der Ankar parc in Malmö. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin																							

370	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CATALUNYA PARK**																							
location	**Sabadell, Spain**																							
author	**ENRIC BATTLE, JOAN ROIG, LLUIS GIBERT**																							
illustration	http://upload.wikimedia.org/wikipedia/commons/2/21/Sabadell_-_Parc_de_Catalunya.JPG																							
creation date	1985-1992																							
purpose	recreation, park																			1				
w. influence	utility functions, water wall, material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Battle E., Roig J. (2002) Parque de Catalunya, Sabadell. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin																							

372	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**PORT VELL**																							
location	**Barcelona, Spain**																							
author	**PERE MATEU, JOAN ROMERO, JOSEPH MARIA SERRA**																							
illustration	https://upload.wikimedia.org/wikipedia/commons/thumb/7/7a/Port_Vell%2C_Barcelona%2C_Spain_-_Jan_2007.jpg/800px-Port_Vell%2C_Barcelona%2C_Spain_-_Jan_2007.jpg																							
creation date	1990-1993																							
purpose	utility, port, promenade																			1	1			
w. influence	inspiration, environment, utility functions	1				1																		
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Battle E., Roig J., Hansjakob T. (2002) Barcelona: der wiedergewonnene Horizont. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin																							

374	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Development of a square in front of the building**																							
location	**Zürich, Switzerland**																							
author	**GUIDO HAGER, FISCHER ARCHITEKTEN, MARCEL BARTH, RUDOLF REICHLING**																							
illustration	http://www.hager-ag.ch/db_data/pro/26/image1_lrg.jpg																							
creation date	1993-1994																							
purpose	utility																			1				
w. influence	ecology, material								1		1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Hager G. (2002) Telecom in der Lehmgrube Binz, Zürich. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin																							

381	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WATER TEMPLE**																							
location	**Tsuna, Hyogo, Japan**																							
author	**TADAO ANDO**																							
illustration	https://en.wikiarquitectura.com/building/water-temple/																							
creation date	1990-1991																							
purpose	utility																			1				
w. influence	inspiration, ecology		1								1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2000)Tadao Ando 1983-2000. El Croquis 44+58, Madrid																							

382	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**STUDLEY PARK HOUSE**																							
location	**Kew VIC, Australia**																							
author	**INARC ARCHITECTS PTY LTD: RENO RIZZO, CHRISTOPHER HANSSON; ROBERT BOYLE**																							
illustration	http://dynamic.architecture.com.au/awards_search?option=showaward&entryno=20053027																							
creation date	2005																							
purpose	residential, pools, pool																		1					
w. influence	environment				1						1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Crafti S. (2005) H_20 architecture. The Images Publishing. Australia., pp. 30-35;																							
389	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Residential house**																							
location																								
author	**MARTINE SECCULL ARCHITECTS**																							
illustration	http://members.optusnet.com.au/valkovadesign/images/other/other01.jpg																							
creation date																								
purpose	residential, pool																		1					
w. influence	utility functions, material				1				1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Crafti S. (2005) H_20 architecture. The Images Publishing. Australia., pp. 64-67																							
396	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BEACH HOUSES**																							
location	**New Zealand, Australia**																							
author	**HULENA BRENT**																							
illustration	http://www.hulena.com/photos/large/newsite/0602760001321811488.jpg																							
creation date																								
purpose	residential, pool																		1					
w. influence	utility functions, environment, material	1			1				1															
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Crafti S. (2005) H_20 architecture. The Images Publishing. Australia., pp. 94-99; http://www.hulena.com/index.php/pi_pageid/15/pi_categoryid/24/pi_projectid/41																							
403	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BRIGHTON HOUSE**																							
location	**Brighton, Victoria, Australia**																							
author	**MCGAURAN GIANNINI SOON PTY LTD**																							
illustration	http://dynamic.architecture.com.au/awards_search?option=showaward&entryno=19993007																							
creation date	1999																							
purpose	residential, pool																		1					
w. influence	decoration				1					1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Crafti S. (2005) H_20 architecture. The Images Publishing. Australia., pp. 130-133; http://dynamic.architecture.com.au/awards_search?option=showaward&entryno=19993007																							
415	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BERKELEY DOBSON HOUSE**																							
location	**south Melbourne, Victoria, Australia**																							
author	**COY-YIONTIS ARCHITECTS**																							
illustration	http://www.cyarchitects.com.au/projects/residential/berkeley-dobson-house/																							
creation date	2004																							
purpose	residential, pool																		1					
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Crafti S. (2005) H_20 architecture. The Images Publishing. Australia., pp. 184-189; http://www.cyarchitects.com.au/projects/residential/berkeley-dobson-house/																							

421	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Promenade MARÍTIMO DE GAVÁ**																							
location	**between Riera dels Canyara and Calle de Sitges, Spain**																							
author	**IMMA JANSANA, BETH FIGURES, FRANCESC GIRÓ**																							
illustration	http://www.gavamar.com/DOCS/historia/passeig_maritim_01.jpg																							
creation date	1992/1993																							
purpose	recreation, promenade																			1				
w. influence	environment, eco-technological										1													
relation to w.	on land												1											
impl. phase	implemented																					1		
source	Battle E., Roig J., Hansjakob T. (2002) Barcelona: der wiedergewonnene Horizont. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin.																							

423	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TIETGENKOLLEGIET**																							
location	**Copenhagen, Denmark**																							
author	**LUNDGAARD&TRANBERG ARKITEKTURFIRMA A\S**																							
illustration	https://images.adsttc.com/media/images/52f3/041d/e8e4/4eb1/2300/006a/slideshow/PORTADA.jpg?1391657969																							
creation date	2002																							
purpose	residential																		1					
w. influence	environment										1													
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Kindt S. (1/06/2006) Weekend z architekturą w Kopenhadze. [w] Porębska E.P. (red) dodatek euro-architektura. Architektura murator. Warszawa. s.18;																							

424	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ROYAL LIBRARY - BLACK DIAMOND**																							
location	**Copenhagen, Denmark**																							
author	**SCHMIDT HAMMER LASSEN (SHL), ARHUS**																							
illustration	https://upload.wikimedia.org/wikipedia/commons/8/83/Den_Sorte_Diamant_1.jpg																							
creation date	1999																							
purpose	utility																			1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Kindt S. (1/06/2006) Weekend z architekturą w Kopenhadze. [w] Porębska E.P. (red) dodatek euro-architektura. Architektura murator. Warszawa. P.18; http://www.bryla.pl/bryla/1,85298,4756966.html, 08.02.2015.																							

425	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**STOREBÆLT COMING FROM NATURAL ISLAND OF SPROGØ**																							
location	**Great Belt Strait, Denmark**																							
author	**BLAIR BIRDSALL A\S STOREBÆLT, SUND&BÆLT**																							
illustration	http://www.storebaelt.dk/english/bridge																							
creation date	1999																							
purpose	hanging bridge, artificial island Sprogø																	1						
w. influence	obstacle																							
relation to w.	at the water, founded on the bottom																1							
impl. phase	implemented																					1		
source	Lewandowski M. (1/06/2006) Osiągnięcia techniczne. Most przez Wielki Bełt. [w] Porębska E.P. (red) dodatek euro-architektura. Architektura murator. Warszawa. p.24; http://pl.wikipedia.org/wiki/bridge_nad_Wielkim_Bełtem; http://www.storebaelt.dk/english/bridge, 08.02.2015.																							

428	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Musical instrument**																							
location	**Zadar, Croatia**																							
author	**NIKOLA BASIĆ**																							
illustration	http://crolove.pl/morskie-organy-w-zadarze/																							
creation date	2005																							
purpose	utility, architect raised the terrace by incorporating organ pipes into it, which, moved by sea waves, emit sounds during high tides																			1				
w. influence	inspiration, environment, technology	1		1							1													
relation to w.	wharf												1				1							
impl. phase	implemented																					1		1
source	Krzechowicz G. (2007) Architektura chorwacka- wczoraj and dziś. [w] Kraus P. (red) Architektura & Biznes nr 12. Kraków.; http://crolove.pl/morskie-organy-w-zadarze/																							

430	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**VELODROME and VELOPARK - Velo-sport building with velo-park**																							
location	**London, UK**																							
author	**HOPKINS ARCHITECTS**																							
illustration	http://r-scale-c5.dcs.redcdn.pl/scale/o2/tvn/web-content/m/p1/i/5/4/545cf12c11b8d04346139fb8884cb447.jpg?type=1&srcmode=4&srcx=0/1&srcy=0/1&srcw=970&srch=645&dstw=970&dsth=645																							
creation date	2008-2011																							
purpose	recreation and utility, the northern part of the Olympic Park																			1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Fiszer T. (2007) London 2012. [w] Kraus P. (red) Architektura & Biznes nr 12. Kraków.																							
431	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**AQUATICS CENTRE - SWIMMING CENTER**																							
location	**London, UK**																							
author	**ZAHA HADID**																							
illustration	http://www.zaha-hadid.com/architecture/london-aquatics-centre/																							
creation date	2008-2011																							
purpose	recreation, utility, south-east part of the Olympic Park																			1				
w. influence	inspiration, utility functions	1			1																			
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Fiszer T. (2007) London 2012. [w] Kraus P. (red) Architektura & Biznes nr 12. Kraków.; http://www.zaha-hadid.com/architecture/london-aquatics-centre/, 08.02.2015.																							
432	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**OLIMPIC STADIUM**																							
location	**London, UK**																							
author	**HOK SPORT LTD**																							
illustration	http://architekturaibiznes.com.pl/image_show.php?id=1&type=sites/538/																							
creation date	2008-2011																							
purpose	recreation, utility, south part of the Olympic Park																			1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Fiszer T. (2007) London 2012. [w] Kraus P. (red) Architektura & Biznes nr 12. Kraków																							
433	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SPORTS COMPLEX RIBERA-SERRALLO**																							
location	**Riera, Cornellà de Llobregat near Barcelona, Spain**																							
author	**ÁLVARO SIZA VIEIRA**																							
illustration	http://architekturaibiznes.com.pl/image_show.php?id=1&type=sites/540/																							
creation date	2005																							
purpose	recreation, utility																			1				
w. influence	utility functions, material				1																			
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Adamczak M. (2007) "jestem funkcjonalistą" [w] Kraus P. (red) Architektura & Biznes nr 12. Kraków																							
434	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**KUNSTHAUS - museum**																							
location	**Graz, Austria**																							
author	**SPACELAB/UK, SPACELAB COOK/FOURNIER GMBH**																							
illustration	http://www.arcspace.com/features/spacelab-cook-fournier/kunsthaus-graz/																							
creation date	2001-2003																							
purpose	utility, museum																			1				
w. influence	inspiration	1																						
relation to w.	on land (no links to the nearby river bed)											1												
impl. phase	implemented																					1		
source	ML, Fournier C., Edler J. and T.,Schmal P.C. (2006) Na granicy możliwości- Kunsthaus w Grazu. [w] Porębska E.P. (red) Architektura murator nr 4. Warszawa.																							

435	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**PASSIVE MOUNTAIN SHELTER**																							
location	**Hochschwab, Austria**																							
author	**POS ARCHITEKTEN**																							
illustration	http://www.wnp.pl/artykuly/pasywne-schronisko-w-alpach,7917.html																			1				
creation date	summer 2005, summer 2006																							
purpose	utility																							
w. influence	ecology - collecting rainwater in the tank and cleaning it with a series of coarse filters, decoration - ice façade									1	1													
relation to w.	in the mountain range											1												
impl. phase	implemented																					1		1
source	Oettl F. (2006) Na granicy możliwości- schronisko w Alpach. [w] Porębska E.P. (red) Architektura murator nr 11. Warszawa.; http://www.wnp.pl/artykuly/pasywne-schronisko-w-alpach,7917.html																							
437	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SPLAVY- floating objects**																							
location	**Belgrade, Serbia**																							
author	**ATJ Architects, JACEK KWIECIŃSKI, TOMASZ KOSMA KWIECIŃSKI**																							
illustration	http://images.visitserbia.org/Belgrade/Raft-on-Ada-near-Belgrade.jpg																							
creation date	2001-2002																							
purpose	utility, tourist, restaurants, clubs																			1				
w. influence	environment																							
relation to w.	floating on the water														1									
impl. phase	implemented																					1		1
source	Graovac A. (2007) Belgrad - fenomen pływającej architektury. [w] Porębska E.P. (red) Architektura murator nr 1. Warszawa.																							
438	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HEADQUARTERS OF BANK SLĄSKI**																							
location	**Katowice, Poland**																							
author	**DENTON CORKER MARSHALL, MARK KUBACZKA, BARRIE MARSHALL, STEVE JONES, JOWITA KUBACZKA, ZBYSZKO BUJNIEWICZ, WOJCIECH BADOWSKI, JANUSZ WRÓBEL**																							
illustration	https://www.urbanity.pl/slaskie/katowice/centrala-banku-slaskiego,b2091																							
creation date	1998-2000																							
purpose	utility																				1			
w. influence	inspiration drawn from nautical architecture	1																						
relation to w.	on land											1												
impl. phase	implemented																					1		
source	Majewski J. S., Kubaczka M. (2001) Bank w Katowicach. [w] Porębska E.P. (red) Architektura murator nr 1. Warszawa.																							
439	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MUSÉE DES CONFLUENCES, CRYSTAL AND CLOUD OF KNOWLEDGE - THE CENTER OF SCIENCE**																							
location	**Lyon, France**																							
author	**COOP HIMMELB(L)AU**																							
illustration	http://www.archdaily.com/452974/in-progress-musee-des-confluences-coop-himmelb-l-au/																							
creation date	2014																							
purpose	utility																			1				
w. influence	inspiration, environment			1																				
relation to w.	wharf, the center was established in a place where two confluence rivers meet - hence the name of the object Musée des Confluences												1											
impl. phase	implemented																					1		
source	Dąbrowska A. (2007) Na marginesie architektury. [w] Porębska E.P. (red) Architektura murator nr 5. Warszawa.; http://www.archdaily.com/452974/in-progress-musee-des-confluences-coop-himmelb-l-au/																							
442	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE WHALE**																							
location	**Sporenburg, Amsterdam, Netherlands**																							
author	**FRITS VAN DONGEN**																							
illustration	http://www.buildingbutler.com/images/gallery/large/building-facades-211-405.jpg																							
creation date	1998-2000																							
purpose	residential-utility																		1	1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków																							

443	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CONSTRUCTION ON THE ISLAND KNSM-EMERALD EMPIRE**																							
location	**Island KNSM, Amsterdam, Netherlands**																							
author	**JO COENEN**																							
illustration	http://www.amsterdamdocklands.com/pictures/knsm/emerald5.jpg																							
creation date	1995																							
purpose	residential																		1					
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków.																							

444	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CONSTRUCTION ON THE ISLAND KNSM - PIRAEUS**																							
location	**Island KNSM, Amsterdam, Netherlands**																							
author	**HANS KOLLHOFF, CHRISTIAN RAPP**																							
illustration	http://www.amsterdamdocklands.com/pictures/knsm/piraeus.jpg																							
creation date	1994																							
purpose	residential																		1					
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków.																							

445	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Residential buildings on JAVA island**																							
location	**Island Java, Amsterdam, Netherlands**																							
author	**KEES CHRISTIAANSE, JO CREPAIN, GEURST&SCHULZE**																							
illustration	http://upload.wikimedia.org/wikipedia/commons/1/1e/Amsterdam_Javaeiland_Lamonggracht.JPG																							
creation date	lata 90																							
purpose	residential																		1					
w. influence	utility functions, environment					1																		
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków																							

446	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**IJ-TOWER**																							
location	**Island Java, Amsterdam, Netherlands**																							
author	**NEUTELINGS RIEDIJK**																							
illustration	https://en.wikiarquitectura.com/building/ij-apartment-tower/																							
creation date	1998																							
purpose	utility-residential																		1	1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków																							

448	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Pedestrian and cycle bridge**																							
location	**Borneo-Sporenburg, Amsterdam, Netherlands**																							
author	**WEST 8**																							
illustration	http://www.west8.nl/projects/bridges/bridges_borneo_sporenburg/																							
creation date	1999-2000																							
purpose	utility, lower bridge - for pedestrian and bicycle traffic, higher - for pedestrian traffic																	1						
w. influence	challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków.; http://www.west8.nl/projects/bridges/bridges_borneo_sporenburg/, 08.02.2015.																							

449	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**VOS HOUSE- House nr 120**																							
location	**Borneo, Amsterdam, Netherlands**																							
author	**KOEN VAN VELSEN**																							
illustration	http://www.architectuur.org/xlfoto.php?pr=510&id=1&nr=1																							
creation date	1999																							
purpose	residential																		1					
w. influence	utility functions, environment					1																		
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków. http://www.architectuur.org/xlfoto.php?pr=510&id=1&nr=1																							

450	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**H-HOUSE**																							
location	**Borneo, Amsterdam, Netherlands**																							
author	**CHRISTIAN RAPP**																							
illustration	http://www.rappenrapp.nl/en/projects/brainpark-iii-office-building/#/en/projects/santen-house																							
creation date	1997																							
purpose	residential																		1					
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków.; http://www.rappenrapp.nl/en/projects/brainpark-iii-office-building/#/en/projects/santen-house																							
451	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**BORNEO 12 BUILDING NR 26**																							
location	**Borneo, Amsterdam, Netherlands**																							
author	**MVRDV**																							
illustration	http://www.mvrdv.nl/projects/borneo-12																							
creation date	1999																							
purpose	residential																		1					
w. influence	utility functions, environment					1																		
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Morze do mieszkania. [w] Loegler R. (red) Architektura&Biznes nr 10. Kraków.; http://www.mvrdv.nl/projects/borneo-12																							
452	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**KURSAAL CENTRE**																							
location	**Avenida de la Zurriola, San Sebastián, Spain**																							
author	**JOSE RAFAEL MONEO ARQUITECTO**																							
illustration	http://buildipedia.com/images/masterformat/Channels/In_Studio/2012.06.18_kursaal_convention_center/images/kursaal_convention_center_19.jpg																							
creation date	June 1995 - August 1999																							
purpose	utility																			1				
w. influence	utility functions, environment				1																			
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	Haduch B. (2002) Skały na plaży. [w] Loegler R. (red) Architektura&Biznes nr 11. Kraków																							
453	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WHITEWATER KAYAKING COURSE**																							
location	**Kościuszko water ledge on the Vistula river, Cracow, Poland**																							
author	**authorSKA PRACOWNIA designOWO-PLASTYCZNA**																							
illustration	http://stara.gorpol.pl/miasta/krakow/kajak/0844-03.jpg																							
creation date	2003																							
purpose	utility, olympic training center, course available to all amateurs of recreation and water sports, rehabilitation centre																			1				
w. influence	attraction, environment				1	1																		
relation to w.	flood plain, in the immediate vicinity of protective flood banks												1											
impl. phase	implemented																					1		
source	(2002) Wydarzenia. Nowe realizacje: Tor kajakarstwa górskiego. [w] Loegler R. (red) Architektura&Biznes nr 7/8. Kraków																							
461	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Museum FLOWERHILL**																							
location	**Wakayama, Japan**																							
author	**KISHO KUROKAWA ARCHITECT & ASSOCIATES**																							
illustration	http://www.kisho.co.jp/page.php/270																							
creation date	1999																							
purpose	utility, museum, courtyard with a shallow water reservoir																			1				
w. influence	material, decoration								1	1														
relation to w.	on land, on the hill											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
466	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**NTT SHINJUKU BUILDING PLAZA SQUARE**																							
location	**Tokyo, Japan**																							
author	**BALMORI ASSOCIATES, INC.**																							
illustration	http://www.balmori.com/portfolio/ntt-shinjuku-headquarters-building																							
creation date	1995																							
purpose	utility, water bridge																			1				
w. influence	material, decoration								1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.balmori.com/portfolio/ntt-shinjuku-headquarters																							

467	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**101 COLLINS STREET-SKYSCRAPER**																							
location	**Melbourne, Victoria, Australia**																							
author	**JOHN BURGEE NEW YORK**																							
illustration	http://www.101collins.com.au																							
creation date	1991																							
purpose	utility, hall-sculptures sunk in shallow pools																				1			
w. influence	material, decoration								1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
471	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**COMMONWEALTH LAW COURTS FORECOURT- Square in front of the court building**																							
location	**Melbourne, Victoria, Australia**																							
author	**HASSEL PTY LTD.**																							
illustration	http://www.hassellstudio.com/en/cms-projects/detail/commonwealth-law-courts/																							
creation date	1998																							
purpose	utility, square in front of the building, pools, fountain																			1				
w. influence	material, decoration								1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.hassellstudio.com/en/cms-projects/detail/commonwealth-law-courts/.																							
473	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CATHEDRAL SQUARE - HOTEL**																							
location	**Brisbane, Queensland, Australia**																							
author	**WOODS BAGOT**																							
illustration	http://thebuzz.beesnees.com.au/wp-content/uploads/2014/10/053.jpg																							
creation date																								
purpose	utility, pool, pools, fountains																			1				
w. influence	decoration, ecology				1			1		1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
475	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HAUS DER DEUTSCHEN WIRTSCHAFT**																							
location	**Berlin, Germany**																							
author	**ARCHITEKTEN SCHWEGER + PARTNER**																							
illustration	https://schweger-architects.com/wp-content/uploads/2018/09/haus-der-wirtschaft-berlin_aussen01.jpg																							
creation date	1999																							
purpose	utility																			1				
w. influence	material, environment								1															
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.schweger-architects.com/de/architecture/haus-der-deutschen-wirtschaft																							
476	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**INTERNATIONAL CONFERENCE CENTRE OSAKA**																							
location	**Osaka, Japan**																							
author	**KISHO KUROKAWA ARCHITECT&ASSOCIATES**																							
illustration	http://www.kisho.co.jp/page.php/271																							
creation date	1994-2000																							
purpose	utility																				1			
w. influence	material, environment								1															
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.kisho.co.jp/page.php/271																							
479	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**NEW WING OF THE VAN GOGH MUSEUM- Museum**																							
location	**Amsterdam, Netherlands**																							
author	**KISHO KUROKAWA ARCHITECT&ASSOCIATES**																							
illustration	http://www.kisho.co.jp/page.php/220																							
creation date	1990-1998																							
purpose	utility																			1				
w. influence	decoration, material								1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.kisho.co.jp/page.php/220																							

500	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SUNTORY MUSEUM**																							
location	**Osaka, Japan**																							
author	**TADAO ANDO**																							
illustration	http://en.wikiarquitectura.com/index.php/Suntory_Museum																							
creation date	1994																							
purpose	utility																			1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2000)Tadao Ando 1983-2000. El Croquis 44+58, Madrid.; http://en.wikiarquitectura.com/index.php/Suntory_Museum, 28.02.2015r.																							
502	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**EASTON TOWN CENTER**																							
location	**Columbus, Ohio, USA**																							
author	**DEVELOPMENT DESIGN GROUP INC.**																							
illustration	https://upload.wikimedia.org/wikipedia/commons/c/c0/Pop_Fountains.jpg																							
creation date	1999																							
purpose	utility																			1				
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
505	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ATLANTIS-HOTEL**																							
location	**Paradise Island, Bahamas**																							
author	**WIMBERLY ALLISON TONG&GOO&HKS INC.**																							
illustration	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
creation date	1999																							
purpose	utility, fountains, pool																			1				
w. influence	environment, utility functions				1			1																
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
506	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TAMPERE HALL**																							
location	**Tampere, Finland**																							
author	**ARKKITEHTITOIMISTO AARTELO, PIIRONEN**																							
illustration	http://www.icopal.com/~/media/IcopalCOM/News/Tampere_hall_Finland.jpg																							
creation date	1990																							
purpose	utility, fountain, water cascades																			1				
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
511	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MIRAGE VOLCANO**																							
location	**Las Vegas, Nevada, USA**																							
author	**WET DESIGN**																							
illustration	http://upload.wikimedia.org/wikipedia/commons/f/f7/The_Mirage_Vegas_Volcano.jpg																							
creation date	1997																							
purpose	exhibition, water lava																			1				
w. influence	material, decoration								1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
519	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LIVE OAK COMMUNITY CENTER**																							
location	**Santa Cruz, California, USA**																							
author	**ELS ARCHITECTURE AND URBAN DESIGN**																							
illustration	https://lh6.googleusercontent.com/-LcvKkBAhfHs/U3UiM2mFVjI/AAAAAAAAABY/yyRnGyDjbvw/w2048-h1365/Both%2Bpools.jpg																							
creation date	1998																							
purpose	recreation, pool, waterfall																			1				
w. influence	utility functions				1																			
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							

524	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MOODY GARDENS AQUARIUM-OCEANARIUM**																							
location	**Galveston Island, Texas, USA**																							
author	**MORRIS ARCHITECTS**																							
illustration	https://www.studioredarchitects.com/moody-gardens-aquarium-galveston-texas/																							
creation date	1986																							
purpose	utility, aquarium																			1				
w. influence	utility functions			1			1																	
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia. https://www.studioredarchitects.com/moody-gardens-aquarium-galveston-texas/																							

526	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**NAOSHIMA CONTEMPORARY ART MUSEUM&ANNEX**																							
location	**Kagawa, Japan**																							
author	**TADAO ANDO**																							
illustration	http://www.galinsky.com/buildings/naoshima/index.htm																							
creation date	1988, 1992, 1995																							
purpose	utility																			1				
w. influence	material, decoration								1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2000)Tadao Ando 1983-2000. El Croquis 44+58, Madrid.																							

531	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**DR SUN YAT-SEN GARDEN**																							
location	**Vancouver, B.C., Canada**																							
author	**VAUGHAN LANDSCAPE PLANNING&DESIGN LTD**																							
illustration	http://www.travelin.pl/galeria/dr-sun-yat-sen-classical-chinese-garden.jpg																							
creation date																								
purpose	recreation, pond																			1				
w. influence	inspiration		1																					
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							

536	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CITROEN PARK**																							
location	**Paris, France**																							
author	**JEAN-PAUL VIGUIER, PATRICK BERGER, ARCHITECTS AND ALAIN PROVOST, GILLES CLEMENT LANSCAPE ARCHITECTS**																							
illustration	https://www.archdaily.com/112685/ad-classics-parc-andre-citroen-alain-provost																							
creation date	1992																							
purpose	recreation, park, fountains, pools																			1				
w. influence	decoration, utility functions									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; https://www.archdaily.com/112685/ad-classics-parc-andre-citroen-alain-provost																							

537	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MARKING HIGH TIDE AND WAITING FOR LOW TIDE PAVILIONS, DAVID LAM PARK**																							
location	**Vancouver, B.C., Canada**																							
author	**VAUGHAN LANDSCAPE PLANNING&DESIGN LTD**																							
illustration	https://c2.staticflickr.com/8/7654/17012631386_5f57b09fdf_b.jpg																							
creation date																								
purpose	exhibition																			1				
w. influence	inspiration, environment		1								1													
relation to w.	in the water													1										
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; https://donvaughan.wordpress.com/landscape-architecture/fountains-and-water-features/the-hightide-pavilion/																							

550	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE WHITE HOUSE**																							
location	**Scottsdale, Arizona, USA**																							
author	**ANTOINE PREDOCK ARCHITECT**																							
illustration	http://www.predock.com/white/white.html																							
creation date	1986																							
purpose	residential, pools, water channels, fountain																		1					
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.predock.com/white/white.html																							

557	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**GUYOTT HOUSE**																							
location	**Connecticut Coast, Connecticut, USA**																							
author	**CENTERBROOK ARCHITECTS AND PLANNERS**																							
illustration	http://www.centerbrook.com/project/guyott_house																							
creation date																								
purpose	residential, pool																		1					
w. influence	utility functions, decoration				1					1														
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.centerbrook.com/project/guyott_house																							

558	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ROSS STREET RESIDENCE**																							
location	**Toorak, Victoria, Australia**																							
author	**MCBRIDE CHARLES RYAN**																							
illustration	http://www.mcbridecharlesryan.com.au/#/projects/ross-st-residence/																							
creation date	1999																							
purpose	residential, pool																		1					
w. influence	utility functions, decoration				1					1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.mcbridecharlesryan.com.au/#/projects/ross-st-residence/																							

561	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ADLER PLANETARIUM AND ASTRONOMY MUSEUM SKY PAVILION**																							
location	**Chicago, Illinois, USA**																							
author	**LOHAN ASSOCIATES**																							
illustration	http://www.lohananderson.com/projects/cultural-academic/22-adler-planetarium-sky-pavilion																							
creation date	1998																							
purpose	utility, museum, planetarium																			1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.lohananderson.com/projects/cultural-academic/22-adler-planetarium-sky-pavilion																							

562	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**KITAKAMI CANAL MUSEUM**																							
location	**Miyagi, Japan**																							
author	**KENGO KUMA&ASSOCIATES**																							
illustration	http://kkaa.co.jp/works/architecture/kitakami-canal-museum/																							
creation date	1999																							
purpose	utility, museum																			1				
w. influence	inspiration, environment	1																						
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://kkaa.co.jp/works/architecture/kitakami-canal-museum/																							

565	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**PEGGY NOTEBAERT NATURE MUSEUM**																							
location	**Chicago, Illinois, USA**																							
author	**PERKINS&WILL**																							
illustration	http://www.perkinswill.com/sites/default/files/project-imagery/PeggyNotebaert_08_main8_0.jpg																							
creation date	1999																							
purpose	utility																			1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://en.wikipedia.org/wiki/Peggy_Notebaert_Nature_Museum;																							
566	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE MAASTHEATER- THEATRE**																							
location	**Rotterdam, Netherlands**																							
author	**HUBERT-JAN HENKET ARCHITECTEN BNA**																							
illustration	http://www.biermanhenket.nl/en/projects/maastheater/																							
creation date	1994-1996																							
purpose	utility																			1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.biermanhenket.nl/en/projects/maastheater/																							
568	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**NORTHERN WATER FEATURE- Fountains**																							
location	**Sydney, New South Wales, Australia**																							
author	**HANGREAVES ASSOCIATES**																							
illustration	https://c2.staticflickr.com/6/5261/5661026236_4136154e66_b.jpg																							
creation date	1998																							
purpose	exhibition, fountains																			1				
w. influence	utility functions, material, decoration								1	1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
570	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**KIBI-CHO CITY HALL**																							
location	**Wakayama Prefecture, Japan**																							
author	**KISHO KUROKAWA ARCHITECT&ASSOCIATES**																							
illustration	http://www.kisho.co.jp/page.php/239																							
creation date	1992-1994																							
purpose	utility, pools																				1			
w. influence	inspiration, ecology		1								1													
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.kisho.co.jp/page.php/239																							
572	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**STONE MUSEUM**																							
location	**Nasu, Tochigi Prefecture, Japan**																							
author	**KENGO KUMA&ASSOCIATES**																							
illustration	http://kkaa.co.jp/works/architecture/stone-museum/																							
creation date	2000																							
purpose	utility, museum																			1				
w. influence	material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	http://kkaa.co.jp/works/architecture/stone-museum/, 11.02.2015r.																							
573	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**DEWOLFE BOATHOUSE - ROWING CAMP**																							
location	**Cambridge, Massachusetts, USA**																							
author	**ARCHITECTURAL RESOURCE CAMBRIDGE, INC.**																							
illustration	http://arcusa.com/node/21																							
creation date	1999																							
purpose	utility																			1				
w. influence	environment, utility				1	1																		
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://arcusa.com/node/21																							

574	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**FRENCH EMBASSY**																							
location	**Muskat, Oman**																							
author	**ARCHITECTURE STUDIO**																							
illustration	http://www.architecture-studio.fr/en/projects/msc1/ french_embassy.html																							
creation date	1986-1989																							
purpose	utility																				1			
w. influence	material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.architecture-studio.fr/en/projects/msc1/muscat_french_embassy.html																							
575	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**EUROPEAN PARLIAMENT**																							
location	**Strasburg, France**																							
author	**ARCHITECTURE STUDIO**																							
illustration	http://www.architecture-studio.fr/en/projects/str2/ european_parliament.html																							
creation date	1991-1999																							
purpose	utility																				1			
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.architecture-studio.fr/en/projects/msc1/muscat_french_embassy.html																							
579	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TOYOTA BRIDGE**																							
location	**Aichi Prefecture, Japan**																							
author	**KISHO KUROKAWA ARCHITECT&ASSOCIATES**																							
illustration	https://selcukcabar.files.wordpress.com/2011/12/bridge.jpg																							
creation date	1999																							
purpose	utility, bridge																	1						
w. influence	challenge																							
relation to w.	in the water, on the shore																1							
impl. phase	implemented																					1		
source	(2001) Water spaces of the world. Volume 3. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							
588	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MODERN ART MUSEUM**																							
location	**Wakayama Prefecture, Japan**																							
author	**KISHO KUROKAWA ARCHITECT AND ASSOCIATES**																							
illustration	http://www.kisho.co.jp/page.php/242																							
creation date	1990-1994																							
purpose	utility, pools																			1				
w. influence	material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.kisho.co.jp/page.php/242																							
594	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**PHOENICIAN HEALTH&SPA RESORT**																							
location	**Broadbeach, Queensland, Australia**																							
author	**DESIGN DETAILS PTY LTD; RAPTIS GROUP**																							
illustration	http://www.raptisgroup.com.au/pastprojects_phoenician.html																							
creation date	1997																							
purpose	exhibition, fountain																			1				
w. influence	decoration, therapy, recreation				1			1		1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.raptisgroup.com.au/pastprojects_phoenician.html																							
597	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**SPENCER THEATER FOR THE PERFORMING ARTS-TEATR**																							
location	**Alto, New Mexico, USA**																							
author	**ANTOINE PREDOCK ARCHITECT**																							
illustration	http://www.predock.com/Spencer/spencer.html																							
creation date	1994-1998																							
purpose	utility, water cascade																			1				
w. influence	decoration									1														
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.predock.com/Spencer/spencer.html																							

622	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**GLENRIDGE HIGHLAND OFFICE BUILDING**																							
location	**Atlanta, Georgia, USA**																							
author	**TVS&A**																							
illustration	http://glenridgehighlands.com																							
creation date	2000																							
purpose	utility, pool, fountain																				1			
w. influence	decoration									1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://glenridgehighlands.com																							

628	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**GAS COMPANY TOWER**																							
location	**Los Angeles, California, USA**																							
author	**WET DESIGN**																							
illustration	http://clairekahndesign.com/water/gas-company-tower/																							
creation date	1991																							
purpose	utility, water channels																				1			
w. influence	decoration, material, ecology								1	1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://clairekahndesign.com/water/gas-company-tower/																							

630	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WELLESLEY COLLEGE SPORTS CENTER**																							
location	**Wellesley, Massachusetts, USA**																							
author	**HARDY HOLZMAN PFEIFFER ASSOCIATES**																							
illustration	http://www.artonfile.com/images/ARCIII-15-06-05.jpg																							
creation date																								
purpose	utility, pool																			1				
w. influence	utility functions				1																			
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.,																							

632	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**THE RITZ-CARLTON BALI**																							
location	**Jimbaran, Bali, Indonesia**																							
author	**WIMBERLY ALLISON TONG&GOO; P.T. HARAPAN SATRIA TIGA**																							
illustration	http://www.balistarisland.com/Bali-Hotels/Hotel_Images/Ritz_Carlton_Bali_04-01.jpg																							
creation date																								
purpose	utility, pool																			1				
w. influence	utility functions, inspiration	1	1		1																			
relation to w.	on land											1	1				1							
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							

633	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**GRAND CHANCELLOR HOTEL**																							
location	**Hobart, Tasmania, Australia**																							
author	**WIMBERLY ALLISON TONG&GOO; DEVINE ERBY MAZLIN**																							
illustration	http://media-cdn.tripadvisor.com/media/photo-s/01/7a/fa/a9/hotel-grand-chancellor.jpg																							
creation date																								
purpose	utility, pool																			1				
w. influence	utility functions, environment				1																			
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							

634	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**POWERLINK QUEENSLAND HEADQUARTERS**																							
location	**Brisbane, Australia**																							
author	**PEDDLE THORP ARCHITECTS**																							
illustration	http://www.peddlethorp.com.au/Projects/Details/7.																							
creation date	1997																							
purpose	utility, pools, water channels																			1				
w. influence	ecology										1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.peddlethorp.com.au/Projects/Details/7																							

640	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**FREEMAN ATHLETIC CENTER**																							
location	**Wesleyan University, Middletown, Connecticut, USA**																							
author	**HERBERT S. NEWMAN AND PARTNERS, PC.**																							
illustration	http://tlbarchitecture.com/assets/2014/02/Wesleyan-Diving-01.jpg																							
creation date																								
purpose	utility, pool																			1				
w. influence	utility functions				1																			
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							

642	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**3COM CORPORATION**																							
location	**Santa Clara, California, USA**																							
author	**STUDIOS ARCHITECTURE**																							
illustration	http://www.studios.com/projects/3com_headquarters																							
creation date	1995-1999																							
purpose	utility, pool																			1				
w. influence	material								1															
relation to w.	on land, on the water											1		1										
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.studios.com/projects/3com_headquarters																							

643	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**NAUTICUS - National Marine Museum**																							
location	**Norfolk, Virginia, USA**																							
author	**CENTERBROOK, ARCHITECTS AND PLANNERS**																							
illustration	http://www.centerbrook.com/project/national_maritime_center_authority_nauticus_the_national_maritime_center																							
creation date	1994																							
purpose	utility, water reservoir																			1				
w. influence	utility functions, environment						1																	
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.centerbrook.com/project/national_maritime_center_authority_nauticus_the_national_maritime_center																							

650	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**YUSUHARA VISITOR'S CENTER**																							
location	**River Shimanto, Japan**																							
author	**KENGO KUMA&ASSOCIATES**																							
illustration	http://uratti.web.fc2.com/architecture/kuma/kumonoue.htm																							
creation date	1994																							
purpose	utility																			1				
w. influence	material								1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://kkaa.co.jp/works/architecture/yusuhara-visitors-center/; http://uratti.web.fc2.com/architecture/kuma/kumonoue.htm																							

651	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**LONG BEACH AQUARIUM**																							
location	**Long Beach, California, USA**																							
author	**HELLMUTH, OBATA+KASSABAUM, INC.**																							
illustration	http://www.aquariumofpacific.org/images/specialevents/aquarium_harbor_night.jpg																							
creation date	1998																							
purpose	utility																			1				
w. influence	utility functions						1																	
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.lilesnet.com/aquarium/																							

658	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MIRAMAR HOTEL**																							
location	**El Gouna, Egypt**																							
author	**MICHAEL GRAVES&ASSOCIATES**																							
illustration	http://michaelgraves.com/portfolio/miramar-resort-taba-heights/																							
creation date	1995																							
purpose	utility, pool																			1				
w. influence	utility functions, environment				1			1			1													
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://en.wikipedia.org/wiki/Michael_Graves; http://michaelgraves.com/portfolio/miramar-resort-taba-heights/																							

660	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HYATT REGENCY KAUAI RESORT&SPA**																							
location	**Poipu Beach, Kauai, Hawai, USA**																							
author	**WIMBERLY ALLISON TONG&GOO**																							
illustration	http://www.watg.com/index.cfm/page/portfolio-grand-hyatt-kauai-resort-spa/																							
creation date																								
purpose	utility, fountain, pool																			1				
w. influence	utility functions, ecology, environment				1			1		1	1													
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.watg.com/index.cfm/page/portfolio-grand-hyatt-kauai-resort-spa/																							

661	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**ROTHSCHILD SUMMER PAVILION**																							
location	**Corfu, Greece**																							
author	**ESTUDIO B.C., JAVIER BARBA**																							
illustration	http://bcarquitectos.com/houses/greece/lord-rothschild-summer-pavilion/																							
creation date	1993																							
purpose	utility, pool																			1				
w. influence	utility functions, inspiration, material				1				1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://bcarquitectos.com/houses/greece/lord-rothschild-summer-pavilion/																							

674	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**GIRO SUMMER PAVILION**																							
location	**Sitges, Spain**																							
author	**ESTUDIO B.C., JAVIER BARBA**																							
illustration	http://bcarquitectos.com/houses/spain/giro-summer-pavilion/																							
creation date	1995																							
purpose	water pavilion, pool																		1					
w. influence	material, utility functions				1				1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://bcarquitectos.com/houses/spain/giro-summer-pavilion/																							

676	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**MONJO HOUSE**																							
location	**Minorca, Spain**																							
author	**ESTUDIO B.C., JAVIER BARBA**																							
illustration	http://bcarquitectos.com/houses/spain/monjo-house/																							
creation date	1989																							
purpose	residential, pool																		1					
w. influence	utility functions, decoration				1					1														
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://bcarquitectos.com/houses/spain/monjo-house/																							

682	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**HOUSE L**																							
location	**Brighton, Melbourne, Australia**																							
author	**BOCHSLER + PARTNERS PTY LTD**																							
illustration	http://www.propertyobserver.com.au/images/2014/11/14/toorask_0003_4.jpg.jpg																							
creation date																								
purpose	residential, pool																		1					
w. influence	ecology, decoration				1					1	1													
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.																							

694	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CIVIC ARTS PLAZA - VISUAL ART CENTRE**																							
location	**Thousand Oaks, California, USA**																							
author	**ANTOINE PREDOCK ARCHITECT**																							
illustration	http://www.predock.com/ThousandOaks/to3.html																							
creation date	1994																							
purpose	utility																			1				
w. influence	material, utility				1				1															
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.predock.com/ThousandOaks/to3.html																							

696	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**UCB WORLD HEADQUARTERS - INTERNATIONAL BIOPHARMACEUTICAL PRODUCTION COMPANY**																							
location	**Brussels, Belgium**																							
author	**ASSAR**																							
illustration	http://www.assar.com/en/projects/ucb-hq																							
creation date	1997																							
purpose	utility																				1			
w. influence	ecology										1													
relation to w.	on land, on the water											1												
impl. phase	implemented																					1		
source	(1999) Water spaces of the world. Volume 2. The Images Publishing Group Pty Ltd. Melbourne, Australia.; http://www.assar.com/en/projects/ucb-hq																							

719	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**COPERNICUS SCIENCE CENTRE**																							
location	**Warsaw, Poland**																							
author	**JAN KUBEC,MAGDA GILNER, MICHAŁ TOMANEK, ZBYSZKO BUJNIEWICZ**																							
illustration	http://www.kopernik.org.pl/news/n/wislany-bulwar-przy-koperniku-juz-otwarty/																							
creation date	2010																							
purpose	utility																			1				
w. influence	inspiration, eco-tech			1							1													
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	http://pl.wikipedia.org/wiki/Centrum_Nauki_Kopernik_w_Warszawie; http://archinea.pl/wp-content/uploads/2012/11/centrum_nauki_kopernik_07.jpg, 28.02.2015.																							

724	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**CHURCH ON THE WATER**																							
location	**Hokkaido, Japan**																							
author	**TADAO ANDO**																							
illustration	http://the-talks.com/wp-content/uploads/2017/02/1995-w-02lg.jpg																							
creation date	1988																							
purpose	utility																			1				
w. influence	inspiration		1																					
relation to w.	on land											1												
impl. phase	implemented																					1		
source	(2000)Tadao Ando 1983-2000. El Croquis 44+58, Madrid.																							

725	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**TIME'S SHOPPING CENTER**																							
location	**Kyoto, Japan**																							
author	**TADAO ANDO**																							
illustration	https://upload.wikimedia.org/wikipedia/commons/thumb/a/ac/Times_I・II.jpg/1024px-Times_I・II.jpg																							
creation date	1984																							
purpose	utility																			1				
w. influence	environment																							
relation to w.	wharf												1											
impl. phase	implemented																					1		
source	(2000)Tadao Ando 1983-2000. El Croquis 44+58, Madrid. pp. 88-93																							

729	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**UNDERWATER MUSEUM (MUSA)**																							
location	**Cancun, Mexico**																							
author	Jaime Gonzalez Cano, Roberto Diaz, Jason de Caires Taylor																							
illustration	https://www.underwatersculpture.com/projects/musa-mexico/																							
creation date	2011																							
purpose	utility																			1				
w. influence	environment																							
relation to w.	under the water															1								
impl. phase	implemented																					1		1
source	https://www.underwatersculpture.com/projects/musa-mexico/																							

737	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Neptune Memorial Reef**																							
location	**Miami USA**																							
author	Gary Levine																							
illustration	http://www.nmreef.com/reef-gallery.html																							
creation date	2007																							
purpose	utility, cemetery																			1				
w. influence	environment																							
relation to w.	under the water															1								
impl. phase	implemented																					1		
source	http://www.theguardian.com/environment/2008/may/12/conservation.usa; http://www.nmreef.com/reef-gallery.html																							

739	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Bridge**																							
location	**Texas**																							
author	Riveira Miro																							
illustration	http://coolboom.net/architecture/pedestrian-bridge-by-miro-rivera-architects/																							
creation date	about 2005																							
purpose	bridge																	1						
w. influence	challenge																							
relation to w.	obstacle																1							
impl. phase	implemented																					1		
source	Finkiel P. (2006) Accross the pond. Architectural Review nr12 p.44.																							

743	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Botanic garden**																							
location	**Bordeaux, France**																							
author	Mosbach Katarina																							
illustration	http://www.moma.org/visit/calendar/exhibitions/117																							
creation date	2000-2002																							
purpose	utility,																			1				
w. influence	utility, science,eco-technology						1				1													
relation to w.	on land without contact with the natural water											1												
impl. phase	implemented																					1		
source	Andersson S. L. (2002) Der Ankar park in Malmö. [w] Wasser, Water Shafer R.(red), Topos Calleway, Birkhauser. Munchen-Basel-Boston-Berlin																							

744	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Cultural centre**																							
location	**Noumea, New Caledonia**																							
author	Renzo Piano																							
illustration	https://upload.wikimedia.org/wikipedia/en/thumb/7/7d/Tjibaou_cultural_center-Commons_transfer_2012-11-20.jpg/800px-Tjibaou_cultural_center-Commons_transfer_2012-11-20.jpg																							
creation date	1991-1998																							
purpose	utility,																			1				
w. influence	eco-technology										1													
relation to w.	ocean shore												1											
impl. phase	implemented																					1		
source	McInstry S. (1998) Sea and Sky. Architectural Review. Nr 1. pp. 32-37.																							

745	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**PAUL KLEE CENTRE**																							
location	**Bern, Switzerland**																							
author	Renzo Piano																							
illustration	https://architektura.info/architektura/polska_i_swiat/centrum_paula_klee																							
creation date	1999-2005																							
purpose	utility,																			1				
w. influence	immaterial inspiration			1																				
relation to w.	land											1												
impl. phase	implemented																					1		
source	Diethlem A. (2005) Zentrum Paul Klee in Bern Renzo Piano Building Workschop. Baumeister. Nr 1. pp. 38-47.																							

746	Data and Description	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**IMPERIAL WAR MUSEUM**																							
location	**Manchester, UK**																							
author	Libeskind Daniel																							
illustration	http://libeskind.com/work/imperial-war-museum-north/																							
creation date	2001																							
purpose	utility,																			1				
w. influence	immaterial inspiration			1																				
relation to w.	land											1												
impl. phase	implemented																					1		
source	Pilawska J. (2006) Imperial War Museum. Architektura and Biznes. Kraków. Nr 4. pp. 66-67.																							
747	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**WATER WORLDS EXHIBITION PAVILION**																							
location	**Neeltje Jans, Netherlands**																							
author	NOX Oosterius Associates																							
illustration	http://2.bp.blogspot.com/_Q36V1IaWegs/TGKj3Ludkml/AAAAAAAAARc/jD2CFuhUB_o/s1600/1.jpg																							
creation date	about 1998																							
purpose	utility, exhibition																			1				
w. influence	eco-tech., inspiration with environment			1							1													
relation to w.	shore												1											
impl. phase	implemented																					1		
source	Cleef C.van (1998) Water Worlds. Architectural Review. Nr 1. pp. 46-47.																							
748	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**AMPHIBIOUS HOUSE**																							
location	**River Thames, UK**																							
author	BACA Architects. Robert Barker and Richard Coutts																							
illustration	https://www.baca.uk.com/																							
creation date	2015																							
purpose	residential																		1					
w. influence	floating on the water and standing on land										1				1									
relation to w.	shore												1											
impl. phase	implemented																					1		
source	https://www.baca.uk.com/																							
750	**Data and Description**	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
object	**Thermal baths**																							
location	**Merano, Italy**																							
author	Baumann Zillich Architekten and Mateo Thun																							
illustration	https://media.holidaycheck.com/data/urlaubsbilder/images/13/1161282657.jpg																							
creation date	**2005**																							
purpose	utility																			1				
w. influence	utility, material,				1			1	1															
relation to w.	land											1												
impl. phase	implemented																					1		
source	Fuchs K. (2006) Wasserwelten. Baumeister. Nr 4. pp. 26-31																							

SUMMARY

	formal references	cultural references	ref. to science / env.	sport-recreation	transportation	science	therapy	material	decoration	tech. and ecology	on land	on the shore	located over water	floating	under the water	technical challenge	engineering bldg.	residential	public utility	office and industry	implemented	concept	experiment
TOTAL	55	19	20	223	34	20	37	127	180	102	356	109	54	53	30	73	40	195	358	42	569	42	37
SUM of categories	94			314				409				319											
NUMBER of objects	80			267				326				272					609					609	
double	14			45				75				31											
triple				1				4				8											
WATER FUNCTIONS	inspiration			determining the purpose				material				environment											

SUM OF categories	137
NUMBER of objects	124
double	13
triple	0
in water space	

ANNEX 2

NR	NAME	LOCATION	AUTHORS
1	FLOATING HOUSES	Hamburg, Germany	ARCHITEKTEN FÖRSTER TRABITZSCH
2	SIX WATER HOUSES	IJ-Burg/ Amsterdam, Netherlands	ART ZAAIJER
3	WATER DWELLING	Middelburg, Netherlands	ARCHITECTUURSTUDIO HERMAN HERTZBERGER
4	FUTURE HOUSE	London, UK	MARCIN PAŃPUCH
5	FLOATING HOUSE	Georgia Bay, Lake Huron, Ontario, Canada	MICHAEL MEREDITH, HILARY SAMPLE
6	HOUSEBOAT	Dubai, United Arab Emirates	X-ARCHITECTS | LEEN VANDAELE
7	SILODAM	Westerdoksdijk, Amsterdam, Netherlands	MVRDV - Winy Maas, Jacob van Rijs, Nathalie de Vries,
8	THE SPHINXES	Gooimeerpromenade, Huizen/ Amsterdam, Netherlands	NEUTELINGS RIEDIJK ARCHITECTS
9	BASTION ISLAND HOUSING	Leeuwarden, Friesland, Netherlands	ATELIER ZEINSTRA VAN DER POL; DOK ARCHITECTEN
10	OSIEDLE WATERWIJK	Ypenburg, Hague, Netherlands	MVRDV
11	BORNEO -SPORENBURG	Amsterdam, Netherlands	WEST 8, MVRDV
12	AIOLA ISLAND CAFÉ	Graz, Austria	VITO ACCONCI/ ACCONCI STUDIO, ROBERT PUNKENHOFER/ ART & IDEA
13	HONG LUO CLUB	Beijing, China	MAD/ IDEA
14	Seoul Floating Islands	River Han, Seul	no data
15	Floating Pool Lady	Brooklyn, New York, USA	Jonathan Kirschenfeld Associates
16	Badeschiff - floating pool	River Spree, Berlin, Germany	Gilbert Wilk and Susanne Lorenz
17	Bonte Zwaan	Floating office bldg., Houthavens, Amsterdam, Netherlands	no data
18	Vernon C. Bain Center	River Rikers, New Orlean, USA	no data
19	Floating Soccer Stadium	Gandsfjord, Norway	Snøhetta & Sandnes
20	Offshore Stadium. FIFA 2022 Football Championships Vision	zmienna	Stadium concept, Peter Knoebel
21	Big Foot. Floating football stadium	Santa Monica, Los Angeles, USA	Heneghan Pen Architects
22	Spa , Volkswagen factory	Wolfsburg, Germany	Max Wehberg
23	Bath island	Havnebad, Kopenhagen, Denmark.	BIG + JDS Architects
24	GATESHEAD MILLENNIUM FOOTBRIDGE	Newcastle, UK	WILKINSON EYRE, GIFFORD&PARTNERS
25	Hydrahouse	zmienna	Office of Mobile Design, Los Angeles, USA
26	Spaceframe – design N55.	London - Amsterdam	N55
27	Snail Shell System	zmienna	N55
28	Ozeaneum - Marine Museum	Stralsund, Germany	Stefan Behnisch, Martin Haas, David Cook (Behnisch Architekten)
29	Oceanário de Lisboa	Lisbon, Portugal	Petera Chermayeff'a and Cambridge Seven Associated
31	River Aquarium	Mora, Alentejo, Portugal	Promontorio Architects; João Perloiro, João Luís Ferreira, Paulo Perloiro, Paulo Martins Barata, Pedro Appleton
32	TENNESSEE AQUARIUM	Tennessee, USA	CAMBRIDGE SEVEN ASSOCIATES, INC.
33	National Aquarium	Baltimore, Maryland, USA	no data
34	The Florida Aquarium	Florida, USA	HELLMUTH, OBATA+KASSABAUM, INC.
35	SHEDD AQUARIUM&OCEANARIUM	Chicago, Illinois, USA	no data
36	L'Oceanogràfic	Valencia, Spain	Santiago Calatrava, Felix Candela
37	Dolphinarium	Harderwijk, Netherlands	no data
38	La Maddalena Marina	Sardinia, Italy	Stefano Boeri Architetti
39	Nordwesthaus - marina, yacht club	Port Rohner Fussach, Austria	Baumschlager Eberle
40	Museum of the Vistula River	Tczew, Poland	no data
41	Adriatic Hotel	Adriatic Sea	Ivana Filipovic
42	Physalia	mobile	no data
43	Thessaloniki Marina	Thessaloniki, Greece	Giannikis SHOP
44	Royal Opera in Copenhagen	Kopenhagen, Denmark	BAR Architects
45	EYCHANER/LEE HOUSE	Illinois, Chicago, USA	TADAO ANDO
46	YOKOGURAYAMA NATURAL FOREST MUSEUM	Ochi, Kochi Prefecture, Japan	TADAO ANDO
47	PENTHOUSE GARDEN	Hannover, Germany	WES & Partner Landschaftsarchitekten
48	wNw BAR	Province Binh Duong, Vietnam	VO TRONG NGHIA, LTD
49	Burj al Arab Hotel	Dubai, United Arab Emirates	Tom Wright
50	Poseidon Resort	Fiji, Island Katafinga	Bruce Jones U.S. Submarines
51	Underwater bar	New York, USA	Thinkmodo
52	The Water Discus Underwater Hotel	Maledives, archipelago of islands in the Indian Ocean	Paweł Podwojewski, Gdańsk
53	Kansai Internatioal Airport Terminal	Kansai, Osaka Bay, Japan	Renzo Piano
54	International Port Terminal	Jokohama, Japan	Foreign Office Architects
55	Pool	Leca da Palmeira, Portugal	Álvaro Siza
56	Kastrup Sea Bath	Kastrup, Denmark	White Architekter AB
57	Water Glass House	Atami, Japan	Kengo Kuma and Associates
58	Floating catering building	Netherlands and others	Koen Olthuis-Waterstudio.nl
59	BLUR BUILDING	Yverdon-les Bains, Switzerland	ELISABETH DILLER & RICARDO SCOFIDIO
60	City at Sea. Neft Dashlari	Caspian Sea, 45 km away from land	no data
61	Lilypad	ocean	Vincent Callebaut
62	Water Pavilion (DWP)	EXPO 2008 Sevilla, Spain	Carlo Ratti Associatti
63	National Aquatic Center	Beijing, China	PTW Architects
65	Sport Higuerita	Tenerife, Spain	Architects GBGV
66	Aquamundo - Center Parcs	Moselle, France	ARTUR Architectes Mandataire
67	Les Bains des Docks	Le Havre, France	Jean Nouvel
68	Wrocław Water Park	Wrocław, Poland	Architekturbüro Horst Haag, Stuttgart
69	Tropical Islands	Krausnick, Germany	no data
70	Olympic Velodrome and Swimming Pool	Berlin, Germany	Dominique Perrault
71	Nautical Center	Mantes-la-Jolie, France	Dominique Perrault
72	TOTO SEMINAR HOUSE	Tsuna-gun, Hyogo, Japan	TADAO ANDO
73	Nuremberg Prisma	Nuremberg, Germany	Joachim Elbe
74	Aqua Skyscraper	Chicago, USA	Jeanne Gang
75	THERME VALS	Canton Vals, Switzerland	PETER ZUMTHOR
76	ST. ARBOGAST WATER PAVILION	Götzis, Austria	FRIDOLIN WELTE, CHRISTIAN LENZ
78	WATER VILLAS	Almere, Flevoland, Amsterdam, Netherlands	UNStudio
79	TORPEDO HALL APARTMENTS	Holmen, Kopenhagen, Denmark	TEGNESTUEN VANDKUNSTEN
80	WATER HOUSES	Osdorp, Amsterdam, Netherlands	TANGRAM ARCHITEKTEN

81	HOFGUT HAFNERLEITEN GUEST HOUSE	Bavaria, Germany	STUDIO LOT
82	SONEVA FUSHI	Kunfunadhoo, Maledives	SONU + EVA SHIVDASANI
83	T-MOBILE STADT	Bonn, Germany	RMP STEPHAN LENZEN LANDSCHAFTSARCHITEKTEN
84	LAKE AUSTIN BOAT DICK	Lake Austin, Texas, USA	JUAN MIRO & MIGUEL RIVERA, MIRO RIVERA ARCHITECTS
85	THAMES FLOOD BARRIER	Woolwich, London, UK	RENDEL, PALMER AND TRITTON
86	HOTEL ESTALAGEM DA PONTA DO SOL	Madeira, Portugal	TIAGO OLIVEIRA
88	JESOLO LIDO VILLAGE	Jesolo,Italy	RICHARD MEIER & PARTNERS
89	ABSBERGGASSE SCHOOL	Vienna, Austria	RÜDIGER LAINER
90	HOUSE MIRINDIBA	São Paulo, Brazil	MARCIO KOGAN
91	UNIVERSUM SCIENCE CENTER	Brema, Germany	THOMAS KLUMPP
92	MEDIENHAFEN	Düsseldorf, Germany	JSK ARCHITEKTEN
93	HOTEL PALAFITTE	Neuchâtel, Switzerland	KURT HOFMANN
94	BMW PLANT	Leipzig, Germany	ZAHA HADID
95	NORVEG MUSEUM AND CULTURAL CENTER	Rørvik, Norway	GUDMUNDUR JONSSON
96	AUA EXTREMA	Neuchâtel, Switzerland	GRUPPE MULTIPACK, Didier Scoffidio
97	NEW ROYAL BATH	Bath, UK	NICHOLAS GRIMSHAW & PARTNERS
98	LIQUIDROM	Berlin, Germany	GMP ARCHITEKTEN
99	GUGGENHEIM MUSEUM	on the bank of the river Nervión, Bilbao, Spain	FRANK O. GEHRY
100	EXPLODED HOUSE PROJECT	Bodrum, Turkey	GAD ARCHITECTURE
101	Residential ON WATER	Kiel, Germany	GEBR. FRIEDRICH SCHIFFSWERFT
102	ZIL PASYON SPA RESORT	Felicite Island, Seychelles	RICHARD HYWEL EVANS
103	BAISOUIN TEMPLE	Minato, Tokyo, Japan	KENGO KUMA & ASOCIATES
104	WEBB BRIDGE	River Yarra, Melbourne, Australia	DENTON CORKER MARSHALL & ROBERT OWEN
105	RAY 1 HOUSE	Vienna, Austria	DELUGAN MEISSL ASSOCIATED ARCHOTECTS
106	ART MUSEUM	Groningen, Netherlands	COOP HIMMELB(L)AU, ALESSANDRO MENDININI, MICHELE DE LUCCHI, PHILIPPE STARCK
107	CITY OF ARTS AND SCIENCES	River Turia, Valencia, Spain	SANTIAGO CALATRAVA
108	DOCKLAND	Hamburg, Germany	BRT ARCHITEKTEN
109	PAUL-LÖBE-HAUS	Berlin, Germany	STEPHAN BRAUNFELS
110	SPA BERGOASE	Arosa, Switzerland	MARIO BOTTA
111	SAN CARLINO	Lake Lugano, Switzerland	MARIO BOTTA
112	HAUS H.	Lake Aussee, Blindenmarkt, Austria	ERNST BENEDER
113	SPA BATHS	Bad Aibling, Austria	BEHNISCH ARCHITEKTEN
114	QUEENS BOTANICAL GARDENS	Flushing, New York, USA	BKSK ARCHITECTS
115	HEINER-METZGER-PLATZ	Neu-Ulm, Germany	ATELIER DREISEITL
116	NATIONAL GRAND THEATHER OF CHINA	Beijing, China	PAUL ANDREU ARCHITECTE
117	LANGEN FOUNDATION	Neuss, Germany	TADAO ANDO
118	THE PALM ISLANDS: THE PALM JUMEIRAH, THE PALM JEBEL ALI, THE PALM DEIRA; THE WORLD	Dubai, United Arab Emirates	AL. NAKHEEL PROPERTIES
119	DULWICH POOL HOUSE	London, UK	ACQ ARCHITECTS
120	CYBERHELVETIA	Biel-Bienne, Switzerland	3DELUXE
121	TANNER SPRINGS park	Portland, Oregon, USA	ATELIER DREISEITL, HERBERT DREISEITL, GREENWORKS, PC
122	TOWN HALL SQUARE	Hattersheim, Germany	ATELIER DREISEITL, HERBERT DREISEITL, BÜRO WALTER, WIESBADEN
123	MUSICAL FOUNTAIN L'AUBIER	Neuchâtel, Switzerland	HERBERT DREISEITL, ATELIER DREISEITL, KURT HOFMANN
124	WATERCOURSE AT HERNE-SODINGEN ACADEMY	Herne, Germany	ATELIER DREISEITL, JOURDA ARCHITECTS, HHS PLANER UND ARCHITEKTEN
125	WATERCOURSE AND WATER WALL-LINDENPLATZ	Gummersbach, Germany	ATELIER DREISEITL, HERBERT DREISEIT, GRUPPE HARDTBERG, AXEL VON REDEN
126	INTEGRATED WATER DESIGN FOR ING BANK-VIVALDI TOWER	Amsterdam, Netherlands	NORMAN FOSTER AND PARTNERS
127	OPEN SPACE FOR RESIDENTIAL DEVELOPMENT	Bern-Ittigen, Germany	HERBERT DREISEITL, ATELIER DREISEITL, RENÈ BURKHALTER AG, ARCHITECTUR DESIGN
128	POTSDAMER PLATZ	Berlin, Germany	ATELIER DREISEITL, RENZO PIANO, CHRISTOPH KOHLBECKER
130	WIND- AND WATER-WHEEL	Owingen, Germany	HERBERT DREISEITL, ATELIER DREISEITL, HUBER & BÖHLER
131	SOLAR CITY LINZ	Linz-Pichling, Austria	Foster + Partner, Richard Rogers, Thomas Herzog
132	BEAR ENCLOSURE AT ZOO ZURICH	Zurich, Switzerland	BÜRO WALTER VETSCH, ATELIER DREISEITL
133	OPEN SPACE AND WATER DESIGN	Fornebu, Oslo, Norway	BJØBEKK & LINDHEIM, ATELIER DREISEITL
134	SONNENHAUSEN ESTATE	Glonn, Germany	ATELIER DREISEITL
135	HOUSING ESTATE ARKADIEN ASPERG	Asperg, Sttutgart, Germany	ATELIER DREISEITL, JOACHIM EBLE ARCHITEKTUR
136	GARDEN FESTIVAL	Chaumon-sur-Loire, France	HERBERT DREISEITL
137	COFFEE CREEK ESTATE	Indiana, USA	ATELIER DREISEITL, CONSERVATION DESIGN FORUM
138	RAINWATER RETENTION ON THE KRONSBERG	Hannover, Germany	ATELIER DREISEITL
139	THE SCHARNHAUSER park	Ostfildern, Germany	ATELIER DREISEITL; Gerhard Hauber
140	TOPPILANSAARI park	Oulu, Finland	ATELIER DREISEITL: Dieter Grau
141	SEWAGE TREATMENT PLANT	Handeloh, Germany	ATELIER DREISEITL
142	SCHEME FOR THE BANKS OF THE VOLME	Hagen, Germany	ATELIER DREISEITL, RKW ARCHITECTS
143	GREEN ROOF FOR CHICAGO CITY HALL	Chicago, USA	ATELIER DREISEITL, CONSERVATION DESIGN FORUM, McDonough + Partners
144	REDESIGN LANFERBACH	Gelsenkirchen, Germany	ROLF KELLER
145	HOUSING ESTATE	Echallens, Switzerland	ATELIER DREISEITL, THEILER & PARTNER
146	RAINWATER MANAGEMENT IN KREMS BUSINESS park	Krems-Ost, Austria	ATELIER DREISEITL
147	WATER PHENOMENA - COOLING TOWER	Gelsenkirchen, Germany	ATELIER DREISEITL, PASD FELDMEIER & WREDE
148	ALNA RiVER	Hølaløkka, Oslo, Norway	ATELIER DREISEITL, 13.3 MULTICONSULT
149	FOUNTAIN SCULPTURE	Immenstaad, Germany	HERBERT DREISEITL

150	MCLAREN PARAGON	London, UK	Foster + Partner
151	CENTER OF EXCELLENCE	Stuttgart, Germany	Kohlbecker Architects & Engineers
152	THE PEARL OF HANGZHOU WATER GARDEN	Hangzhou, Chiny	ATELIER DREISEITL
153	EXPO2000 WATER-TRACES	Hann. Münden, Germany	ATELIER DREISEITL
154	INTERIOR COURTYARD OF AN OLD PEOPLE'S HOME	Stuttgart, Germany	ATELIER DREISEITL
155	EXEMPLARY WATER MANAGEMENT AT DWR HEADQUARTERS	Amsterdam, Netherlands	ATELIER DREISEITL, HERMAN HERTZBERGER
156	RESTORATION OF EMSCHER RIVER	Ruhrgebiet, Germany	ATELIER DREISEITL, HERBERT DREISEITL
157	WATER PLAYGROUND	Pforzheim, Germany	ATELIER DREISEITL, HERBERT DREISEITL
158	MEETING SLIDES	Lapland, Finland	WILLIAMS & TSIEN; CARSTEN HÖLLER
159	ABSOLUTE ZERO: A LIGHT HOUSE OF TEMPORALITY	Kemi, Finland	OSMO RAUHALA; ASYMPTOTE
160	THE MORPHIC EXCESS OF THE NATURAL/ LANDSCAPE IN EXCESS	Lapland, Finland	EVA ROTHSCHILD; ANAMORPHOSIS
161	UNTITLED (INSIDE)	Lapland, Finland	RACHEL WHITEREAD; JUHANI PALLASMAA
162	LANTERNS OF URSA MINOR	Lapland, Finland	ROBERT BARRY; HOLLMÈN-REUTER-SANDMAN
163	COLOURED ICE WALLS	Lapland, Finland	TOP CHANGTRAKUL; LOT-EK
164	FROZEN VOID	Lapland, Finladnia	ERNESTO NETO; OCEAN NORTH
165	OBSCURED HORIZONS	Lapland, Finland	LAWRENCE WEINER, ENRIQUE NORTEN
166	CARESS ZAHA WITH VIDKA/ICEFIRE	Kemi, Finland	CAI GUO-QIANG, ZAHA HADID
167	OBLONG VOIDSPACE	Rovaniemi, Finland	JENE HIGHSTEIN, STEVEN HOLL
168	ICED TIME TUNNEL	Lapland, Finland	TATSUO MIYAJIMA, TADAO ANDO
169	PENAL COLONY	Lapland, Finland	YOKO ONO, ARATA ISOZAKI
170	FLUID FOSSILS	Lapland, Finland	DO-FO SUH, MORPHOSIS
171	KATZENAUGE/CATSEYE	Lapland, Finland	LOTHAR HEMPEL, STUDIO GRANDA
172	RED SOLID	Lapland, Finland	ANISH KAPOOR, FUTURE SYSTEMS
173	PURE MIX	Lapland, Finland	JOHN ROLOFF, DILLER+SCOFIDIO
174	SKYPOOL	Lapland, Finland	KIKI SMITH, LEBBEUS WOODS
176	THE NATURAL POOL	Carmichael, California, USA	MICHAEL GLASSMAN
177	THE NATURAL POOL	Santa Ynez, California, USA	ISABELLE GREENE
178	THE VINTAGE CLUB	Indian Wells, California, USA	WAYNE C. CONNORS & ASSOCIATES
179	THE NATURAL POOL	Palm Springs, California, USA	THE LARSONS
180	THE NATURAL POOL	Beverly Hills, Los Angeles, California, USA	CLEO BALDON
181	THE NATURAL POOL	Indian Wells, California, USA	KEN NORTON
182	THE NATURAL POOL	South Palm Springs, California, USA	WAYNE CONNOR
184	THE SWIMMING POOL	Brentwood, Los Angeles, California, USA	DON HENSMAN OF BUFF, SMITH & HENSMAN
185	THE SWIMMING POOL	California, USA	GALPER/BALDON ASSOCIATES
186	THE SWIMMING POOL	La Jolla, California, USA	KEN RONCHETTI
188	THE LAP POOL	Hollywood, Los Angeles, USA	CLEO BALDON MELCHIOR, IB MELCHIOR
189	Montalbán House	Los Angeles, USA	RICARDO LEGORRETA
190	THE LAP POOL	Malibu, California, USA	RON GOLDMAN, BOB FIRTH
191	THE LAP POOL	Pasadena, California, USA	BUFF, SMITH & HENSMAN
192	THE POOL EDGE	Encino, California, USA	GALPER/BALDON ASSOCIATES
193	THE POOL EDGE	Montecito Hills, California, USA	ROBERT WOOLF
194	THE POOL EDGE	Malibu, California, USA	BARRY BEER
196	THE DUQUETTE POOL	Beverly Hills, California, USA	TONY DUQUETTE
197	SANTA BARBARA	Santa Barbara, California, USA	SHARP, MAHAN&LENNY
200	POOL WITH A VIEW: LOBO CANYON	Santa Monica Mountains, California, USA	CAMPBELL&CAMPBELL-LEAH&PAUL CULBERG
201	POOL WITH A VIEW: LAKE SHERWOOD	Lake Sherwood, Ventura, northern part of Los Angeles, California, USA	MARK L. SMITH
202	POOL WITH A VIEW: THE PALO ALTO HILLS	Palo Alto, California, USA	PETER WRIGHT SHAW
204	INDOOR WATERS: SEACLIFF	Seacliff, San Francisco, California, USA	LEACH&LEACH, DEL LEACH
205	INDOOR WATERS: WOODSIDE	San Mateo, San Francisco, California, USA	TIMOTHY MCDONOUGH- SILVERCREEK DEVELOPMENT
206	INDOOR WATERS: CORONA DEL MAR	Corona Del Mar, California, USA	BART PRINCE
208	INDOOR WATERS:ESCONDIDO	San Diego, California, USA	RICARDO LEGORRETA
215	TROLL A - OFFSHORE GAS PRODUCTION PLATFORM	80 km northwest of Bergen, Norway	NORWEGIAN CONTRACTORS FOR NORSKE SHELL
217	ALUMINIUM FOREST	Houten, Netherlands	MICHA DE HAAS
218	PLAN TIJ	Dordrecht, Netherlands	KLUNDER ARCHITECTEN
220	BIONIC TOWER	Shanghai, China	MARIA ROSA CERVERA, JAVIER PIAZ, ELOY CELAYA
221	LUCHAO HARBOUR CITY	Shanghai, China	MEINHARD VON GERKAN (VON GERKAN, MARG UND PARTNER)
222	ARCHE SAYA	Saya de Malha Bank, Indian Ocean	WOLF HILBERTZ
223	HOTEL LE MERIDIEN	Bora Bora, French Polynesia	JEAAN HUGUES TRICARD, DL2 DIDIER LEFORT ARCHITECTES ASSOCIÈS
224	LEHIGH VALLEY RAILROAD BARGE #79	Red Hook, Brooklyn, New York, USA	DAVID SHARPS
225	SHIP-PING	Ghent, Belgium	WALTER BETTENS, SIEGRID DEMYTTENAERE
226	ECO-TECH LOFTBOAT	Ghent, Belgium	CUYPERS&Q ARCHITECTEN
227	AYABE COMMUNITY CENTER	Ayabe-shi, Kyoto, Japan	TADAO ANDO
228	CITY HOSTEL	Amsterdam, Netherlands	MARLIES ROHMER
230	SEMI-WATERHOUSES	Ypenburg, Netherlands	ARCHITECTUURSTUDIO HERMAN HERTZBERGER
231	FLOATING HOMES	Berlin, Germany	GRÜNTUCH ERNST ARCHITECTS
232	FLOATING HOMES H20	Berlin, Germany	FÖRSTER TRABITZSCH ARCHITECTS
233	WO29 LOUNGER	Ijburg, Netherlands	WATERSTUDIO
234	WOONARK	Amsterdam, Netherlands	Jord Den Hollander
235	WATER DWELLING	Amsterdam, Netherlands	MARLIES ROHMER
236	FLOATING HOUSES	British Columbia, Canada	no data
237	ANTHENEA AQUASPHERE	no permanent location	JEAN-MICHEL DUCANCELLE
239	FLOATEL 2000	Germany	WAKI ZÖLLNER
240	GARDEN OF FINE ARTS	Sakyo-ku, Kyoto, Japan	TADAO ANDO
241	JELLY-FISH 45	-	GIANCARLO ZEMA
242	TRILOBIS 65	-	GIANCARLO ZEMA
243	KAMAR	-	DIRK SCHUMANN
244	FLOATING RETREAT	-	SOFTROOM
245	SEA VENTURE HOTEL	-	ROBERT POFF
248	LINEAR MARINE CITY	between Osaka and Kyushu, Japan	KIYONORI KIKUTAKE
249	AZ ISLAND	-	JEAN PHILIPPE ZOPPINI

250	FREEDOM SHIP	-	NORMAN NIXON
254	PALINURUS	-	DIRK SCHUMANN
255	UNDERWATER RETREAT	-	TOOLS OFF.ARCHITECTURE
256	JULES' UNDERSEA LODGE	Key LARGO, Florida, USA	IAN KOBLICK, NEIL MONNEY
257	HYDROPOLIS	Dubai, United Arab Emirates	JOACHIM HAUSER
258	RED SEA STAR	Eilat, Israel	SEFI KIRYATY, AYALA SERFATY
261	SEVEN OCEANS ONE	-	ANNETTE LIPPMANN, GUIDO WEINHARDT, SEA&SPACE GMBH
262	OTTER INN	Lake Mälaren, Vasterås, Sweden	MIKAEL GENBERG
263	IGLOO	Polar Regions	no data
265	ICEHOTEL	Jukkasjärvi, Sweden	ÅKE LARSSON
266	ICE DOMES	-	VIENNA UNIVERSITY OF TECHNOLOGY, INSTITUTE FOR STRUCTURAL ENGINEERING
284	PUENTE LUSITANIA	Mérida, Spain	SANTIAGO CALATRAVA
285	PUENTE LA BARQUETA	Seville, Spain	JUAN J. ARENAS DE PABLO, MARCOS J. PANTALEÓN
286	PONT DE NORMANDIE	La Havre, France	MICHEL VIRLOGEUS, FRANÇOIS DOYELLE, CHARLES LAVIGNE, BRICE GIRARD
287	AKASHI KAIKYO BRIDGE	Akashi, Japan	HONSHU SHIKOKU BRIDGE AUTHORITY
288	TATARA BRIDGE	Seto Sea, Japan	HONSHU SHIKOKU BRIDGE AUTHORITY
289	TSING MA BRIDGE	Hong Kong, China	MOTT MACDONALD, YEE ASSOCIATES
290	GREAT BELT LINK	between the islands of Funen and Zealand, Denmark	DISSIN+WEITLING
291	ØRESUND BRIDGE	Øresund Strait, Denmark-Sweden	GEORG ROTNE
292	PUENTE LEREZ	Pontevedra, Spain	LEONARDO FERNANDEZ TROYANO
293	ERASMUS BRIDGE	Rotterdam, Netherlands	BEN VAN NERKEL
294	PUENTE VASCO DE GAMA	Lisbon, Portugal	MICHEL VIRLOGEUX
295	KIEL HÖRN FOOTBRIDGE	Kiel, Germany	JÖRG SCHLAICH, VOLKWIN MARG
296	SOLFERINO FOOTBRIDGE	Paris, France	MARC MIMRAM
297	MILLENNIUM FOOTBRIDGE	London, UK	ANTHONY CARO, NORMAN ROBERT FOSTER, OVE ARUP&PARTNERS
298	LA MUJER FOOTBRIDGE	Buenos Aires, Argentina	SANTIAGO CALATRAVA
299	LÄNSISATAMANKATU BRIDGE	Helsinki, Finland	CEZARY M. BEDNARSKI
300	MONOLITH	Morat, Switzerland	Jean Nouvell
301	HADRIAN'S MILLENIUM BRIDGE	Carlisle, UK	CEZARY M. BEDNARSKI
302	KELVIN LINK BRIDGE DOWNSTREAM MILLENNIUM BRIDGE	Glasgow, UK	CEZARY M. BEDNARSKI
303	"STEEL ART BEAM"	Maidstone, UK	CEZARY M. BEDNARSKI
304	Nemo 33	Brussels, Belgium	no data
305	Y-40	Montegrotto, Padova, Italy	no data
306	ENNEÜS HEERMABRUG	Amsterdam, Netherlands	NICHOLAS GRIMSHAW&PARTNERS LTD
307	KOTLARSKI BRIDGE	Cracow, Poland	Witold Gawłowski STUDIO ARCHI 5
308	ZWIERZYNIECKI BRIDGE	Cracow, Poland	IMB ASYMETRIA
309	ŚWIĘTOKRZYSKI BRIDGE	Warsaw, Poland	KONSORCJUM BMJ GROUP, ANDRZEJ CZAPSKI
310	MILLAU VIADUCT	France	SETRA, FOSTER&PARTNERS
311	RION-ANTIRION BRIDGE named in honour of HARILAOS TRIKOUPIS	Greece	VINCI
312	TSING MA HANGING BRIDGE	Hongkong, China	MAUNSELL CONSULTANTS ASIA LTD.
313	MODERN HOUSE - LA CASONA	Ibiza, Spain	ROLP BLAKSTAD
314	NO-LIMIT POOL	Ibiza, Spain	ANDRÈ JACQMAIN
315	Pool	Majorca, Spain	TONI OBRADOR
316	Pool	Ibiza, Spain	ROLF BLACKSTAD
317	RENOVATION OF A MANOR HOUSE ON MAJORCA	Majorca, Spain	B.B.&W ESTUDIO DE ARQUITECTURA, SERGI BASTIDAS, WOLF SIEGFRIED WAGNER
318	Pool	Ibiza, Spain	JOAN CARDONA
319	RED HOUSE	Majorca, Spain	PABLO CARVAJA, FERNANDO CARUNCHO
320	Pool	Girona, Spain	LORENZO MARQUÈS
321	Pool	Majorca, Spain	WOLF SIEGFRIED WAGNER
322	Pool	Cadiz, Spain	VALENTÍN DE MADARIAGA & ERNESTO MERELLO
323	Pool	Marrakech, Morocco	CHARLES BOCCARA
324	POOL AT THE ROCK FACE	Barcelona, Spain	GUILLERMO MALUENDA
325	Pool	Girona, Spain	ÁNGELS G. GIRÓ & LUIS VIDAL
326	Pool	Ibiza, Spain	VICTOR ESPOSITO
327	Pool	Marseille, France	RUDY RICCIOTTI
328	Pool	Majorca, Spain	B.B.&W ESTUDIO DE ARQUITECTURA, SERGI BASTIDAS, WOLF SIEGFRIED WAGNER
329	THE REINTERPRETATION OF WATER	Marrakech, Morocco	CHARLES BOCCARA
330	IN THE GARDEN OF THE IMAGINARY	Provence, France	A.D.A. MAURICE SAVINEL & ROLAND LE BÈVILLON
331	Pool	Majorca, Spain	no data
332	Pool	Majorca, Spain	B.B.&W ESTUDIO DE ARQUITECTURA, SERGI BASTIDAS, WOLF SIEGFRIED WAGNER
333	Pool	Majorca, Spain	WOLF SIEGFRIED WAGNER
334	Pool	Marrakech, Morocco	CHARLES BOCCARA
335	Pool	Les Beaux de Provence, France	BUREAU D'ETUDES BRUNO & ALEXANDRE LAFOURCADE, DOMINIQUE LAFOURCADE
336	Pool	Cadiz, Spain	VALENTÍN DE MADARIAGA & ERNESTO MERELLO
337	Pool	Ibiza, Spain	ROLF BLACKSTAD
338	CASA NA XEMENA	Ibiza, Spain	RAMON ESTEVE
339	Pool	Majorca, Spain	TONI OBRADOR
340	Pool	Majorca, Spain	JOSEPH LLUIS SERT
341	Pool	Ibiza, Spain	WOLF SIEGFRIED WAGNER
342	HOTEL CARAVAN SERAI	Marrakech, Morocco	CHARLES BOCCARA
344	KATLEMAN RESIDENCE-BETWEEN TWO WATERS	Los Angeles, California, USA	MARMOL & RADZINER
345	PRIVATE RESIDENCE - SCORPION HOUSE	Scottsdale, Arizona, USA	JONES STUDIO, INC.
346	Pool	Aix-en-Provence, France	ITA & REGIS MAQUET
348	Pool	Saint- Rémy de Pce., France	BUREAU D'ETUDES BRUNO & ALEXANDER LAFOURCADE, DOMINIQUE LAFOURCADE
349	Pool	Majorca, Spain	B.B. ESTUDIO DE ARQUITECTURA, SERGI BASTIDAS
350	Pool	Aix-en-Provence, France	ANNE & PHILIPPE BERTHIER

351	Pool	La Cadière d'Azur, France	RUDY RICCIOTI
352	Pool	Menorca, Spain	MARINÍ MALAGARRIGA
353	TAGOMAGO VILLA	Ibiza, Spain	CARLOS FERRATER & JOAN GUIBERNAU
354	Pool	Menorca, Spain	JAVIER CLARÓS, EDUARD ARRUGA, PEPOTE COMELLA
355	PARC CORBIÈRE	Le Pecq, France	PASCALE HANNETEL
356	THE PARK ON THE SOMME AT AMIENS	Amiens, France	JAQUELINE OSTY
357	PARQUE JUAN CARLOS I	Madrid, Spain	SUSANA CANOGAR
358	OPEN SPACE AT UNI-BANK	Copenhagen, Denmark	HENNING LARSENS TEGNESTUE, SVEN-INGVAR ANDERSSON
359	ERASMUS GARDEN	Rotterdam, Netherlands	WEST 8-ADRIAAN GEUZE, THEO REESINK, NIGEL SAMPEY
360	WATER CRATER AT THE REGIONAL GARDEN SHOW 2000	Westphalia, Germany	AGENCE TER, PARIS(HENRI BAVA, OLIVIER PHILIPPE, MICHEL HOESSLER) Z ALEXANDER BÖLK
361	LA DEHESA DEL SALER, THE COASTAL ZONE OF LA ALBUFERA	Valencia, Spain	ALFRED FERNÁNDEZ DE LA REGUERA, IGNACIO SALVANS, JORDI SOLÈ
362	NEW USES FOR THE SHIPYARDS	Göteborg, Germany	BRUNO RICHTER ARKITEKTKONTOR, ARKITEKTLAGET AB UND ARKITEKTURKOMPANIET; WHITE ARKITEKTER AB
363	New designing strategy of area development along the river Thames	Francja	Kim Wilkie
364	Square DES TERREAUX	Lyon, France	CHRISTIAN DREVET
365	THE SQUARE OF HUMAN RIGHTS AT EVRY	Evry, France	KATHRYN GUSTAFSON
366	Promenade	Barceloneta, Barcelona, Spain	JAUME ARTIGUES, JORDI HENRICH, MIQUEL ROIG, OLGA TARRASO, ANNA M. CASTAÑEDA
367	Promenade	Malmö, southern Sweden	JEPPE AAGAARD ANDERSON
368	DENMARK PARK	Malmö, southern Sweden	THORBJÖRN ANDERSSON AND PEGE HILLINGE, FFNS ARCHITECTS
369	ANCHOR PARK	Malmö, southern Sweden	STIG L. ANDERSSON
370	CATALUNYA PARK	Sabadell, Spain	ENRIC BATTLE, JOAN ROIG, LLUIS GIBERT
371	Hydroelectric power plant	Vienna, Austria	HERWIG SCHWARZ, GOTTFRIED AND TONI HANSJAKOB
372	PORT VELL	Barcelona, Spain	PERE MATEU, JOAN ROMERO, JOSEPH MARIA SERRA
373	PROMENADA	Palamós, Spain	JOSEP FUSES, JOAN M. VIADER, JORDI LÓPEZ-VIVES, INGENIERO C.C.I.P. DIRECIÓN GENERAL DE COSTAS
374	Development of a square in front of the building	Zürich, Switzerland	GUIDO HAGER, FISCHER ARCHITEKTEN, MARCEL BARTH, RUDOLF REICHLING
375	Designing strategy in Duindoornstad	Duindoornstad, Rotterdam, Netherlands	ADRIAAN GEUZE, EDZO BINDELS, RENE MAREY, ARNO DE VRIES, GUIDO MARSILLE, GRICHA BOURBOUZE, CYRUS B. CLARK, ERIK OVERDIEP, WIM KLOOSTERBOER KATRIEN PRAK, RAMON JANSEN, MARC MCCARTHY
376	Single-family house with a pool at the entrance	-	BUD BRANNIGAN
377	Residential house ON THE ROCK	-	MARTIN PICKRELL
378	HAWTHORN COURTYARD RESIDENCE	-	JOHN WARDLE
379	Residential house	-	JMA ARCHITECTS: JOHN MAINWARING
381	WATER TEMPLE	Tsuna, Hyogo, Japan	TADAO ANDO
382	STUDLEY PARK HOUSE	Kew VIC, Australia	INARC ARCHITECTS PTY LTD: RENO RIZZO, CHRISTOPHER HANSSON; ROBERT BOYLE
383	PIKE-WHITTY RESIDENCE "KATSURA"	Birchgrove, Sydney, Australia	KEITH PIKE, CATHERINE WHITTY
384	Residential house	-	RICHARD SWANSSON
385	Residential house	-	ALEX POPOV
386	MT. ELIZA HOUSE	Mount Eliza, Melbourne, Victoria, Australia	BIRD DE LA COEUR
387	Residential house	Singapore	GUZ ARCHITECTS
388	Residential house	-	SPACE AGENCY: Michael Patroni
389	Residential house	-	MARTINE SECCULL ARCHITECTS
390	Residential house	-	WOODHEAD INTERNATIONAL PTY LTD: JOHN HENRY
391	A JAPANESE-STYLE POND	-	DAVID LUCK ARCHITECTURE
392	L-SHAPED POOL	-	TOSCANO JOE
393	LAP POOL- DALKEITH HOUSE	Dalkeith, Australia	ODDEN RODRIGUES
394	LAP POOL WITH CUBE CLUSTER	-	ALEX POPOV
395	Residential house	-	BATES SMART, HPA PTY LTD
396	BEACH HOUSES	New Zealand, Australia	HULENA BRENT
397	HILL STREET HOUSE	-	ALLAN POWELL
398	THE PENTHOUSE POOL	-	SJB INTERIORS: ANDREW PARR
399	CLIFF HOUSE	Dover Heights, New South Wales, Australia	BRIAN MEYERSON ARCHITECTS PTY LTD
400	ELSTERNWICK RESIDENCE	Elsternwick, Victoria, Australia	HAYBALL LEONARDO STENT PTY LTD ARCHITECTS
401	Residential house	-	GUZ ARCHITECTS
402	Residential house	-	DURBACH BLOCK ARCHITECTS
403	BRIGHTON HOUSE	Brighton, Victoria, Australia	MCGAURAN GIANNINI SOON PTY LTD
404	VESI	-	ALUDEAN: LU SKACEJ, DEAN COLLS
405	ROSS STREET HOUSE	Melbourne, Australia	B.E. ARCHITECTURE
406	ARGO STREET HOUSE	Victoria, Australia	O'CONNOR + HOULE ARCHITECTURE
407	Residential house	-	ARCHITECTS INK
409	THERMOHOUSE	Toorak, Victoria, Australia	DE CAMPO ARCHITECTS
410	PORTSEA RESIDENCE	Portsea, Victoria, Australia	BBP ARCHITECTS: DAVID BALESTRA-PIMPINI, SERGE BIGUZAS
411	Residential house	-	PERKINS ARCHITECTS: IAN PERKINS
412	Residential house	-	PERKINS ARCHITECTS: IAN PERKINS
413	Residential house	-	ENEGELEN MOORE
414	THE WATER HOUSE	-	DALE JONES-EVANS PTY LTD
415	BERKELEY DOBSON HOUSE	south Melbourne, Victoria, Australia	COY-YIONTIS ARCHITECTS
416	Residential house	-	INTERLANDI MANTESSO ARCHITECTS
417	Residential house	-	STEPHEN JOLSON ARCHITECT
418	Residential house	-	DAVID PONTING ARCHITECTURE
419	EARTH HOUSE	-	STEPHEN JOLSON ARCHITECT

420	WRAPAROUND POOL	-	BUD BRANNIGAN
421	Promenade MARÍTIMO DE GAVÁ	between Riera dels Canyara and Calle de Sitges, Spain	IMMA JANSANA, BETH FIGURES, FRANCESC GIRÓ
422	VM HUSENE	Copenhagen, Denmark	PLOT ARCHITECTS
423	TIETGENKOLLEGIET	Copenhagen, Denmark	LUNDGAARD&TRANBERG ARKITEKTURFIRMA A\S
424	ROYAL LIBRARY - BLACK DIAMOND	Copenhagen, Denmark	SCHMIDT HAMMER LASSEN (SHL), ARHUS
425	STOREBÆLT COMING FROM NATURAL ISLAND OF SPROGØ	Great Belt Strait, Denmark	BLAIR BIRDSALL A\S STOREBÆLT, SUND&BÆLT
426	ADAPTATION OF 19TH-CENTURY FACTORY BUILDINGS FOR A SHOPPING, OFFICE AND SERVICES CENTRE 'MANUFAKTURA'	Łódź, Poland	SUD ARCHITECTES, JEAN MARC PIVÔT
427	BRIDGE OF MEMORY	Rijeka, Croatia	3 LHD ARCHITECTS
428	Musical instrument	Zadar, Croatia	NIKOLA BASIĆ
429	THAMES GATEWAY	London, UK	many investors and desigers, including: OLYMPIC DELIVERY AUTHORITY, ODA, LONDON DEVELOPMENT AGENCY, EDAW
430	VELODROME and VELOPARK - Velo-sport building with velo-park	London, UK	HOPKINS ARCHITECTS
431	AQUATICS CENTRE - SWIMMING CENTER	London, UK	ZAHA HADID
432	OLIMPIC STADIUM	London, UK	HOK SPORT LTD
433	SPORTS COMPLEX RIBERA-SERRALLO	Riera, Cornellá de Llobregat near Barcelona, Spain	ÁLVARO SIZA VIEIRA
434	KUNSTHAUS - museum	Graz, Austria	SPACELAB/UK, SPACELAB COOK/FOURNIER GMBH
435	PASSIVE MOUNTAIN SHELTER	Hochschwab, Austria	POS ARCHITEKTEN
437	SPLAVY- floating objects	Belgrade, Serbia	ATJ Architects, JACEK KWIECIŃSKI, TOMASZ KOSMA KWIECIŃSKI
438	HEADQUARTERS OF BANK SLĄSKI	Katowice, Poland	DENTON CORKER MARSHALL, MARK KUBACZKA, BARRIE MARSHALL, STEVE JONES, JOWITA KUBACZKA, ZBYSZKO BUJNIEWICZ, WOJCIECH BADOWSKI, JANUSZ WRÓBEL
439	MUSÉE DES CONFLUENCES, CRYSTAL AND CLOUD OF KNOWLEDGE - THE CENTER OF SCIENCE	Lyon, France	COOP HIMMELB(L)AU
440	WATER PAVILION	-	students of the Silesian University of Technology: ALEKSANDRA KUBOŚ, SONIA PAROL, supervisor: ANDRZEJ DUDA
441	HOTEL MARINA DIANA	Białobrzegi nad Zalewem Zegrzyńskim, Poland	APA WOJCIECHOWSKI, WITOLD DUDEK, IZABELA PIETRASZEK-KUBICKA, MICHAŁ SADOWSKI, SZYMON WOJCIECHOWSKI
442	THE WHALE	Sporenburg, Amsterdam, Netherlands	FRITS VAN DONGEN
443	CONSTRUCTION ON THE ISLAND KNSM-EMERALD EMPIRE	Island KNSM, Amsterdam, Netherlands	JO COENEN
444	CONSTRUCTION ON THE ISLAND KNSM - PIRAEUS	Island KNSM, Amsterdam, Netherlands	HANS KOLLHOFF, CHRISTIAN RAPP
445	Residential buildings on JAVA island	Island Java, Amsterdam, Netherlands	KEES CHRISTIAANSE, JO CREPAIN, GEURST&SCHULZE
446	IJ-TOWER	Island Java, Amsterdam, Netherlands	NEUTELINGS RIEDIJK
447	PIET HEIN TUNNEL	Amsterdam, Netherlands	UN STUDIO/VAN BERKEL&BOS
448	Pedestrian and cycle bridge	Borneo-Sporenburg, Amsterdam, Netherlands	WEST 8
449	VOS HOUSE- House nr 120	Borneo, Amsterdam, Netherlands	KOEN VAN VELSEN
450	H-HOUSE	Borneo, Amsterdam, Netherlands	CHRISTIAN RAPP
451	BORNEO 12 BUILDING NR 26	Borneo, Amsterdam, Netherlands	MVRDV
452	KURSAAL CENTRE	Avenida de la Zurriola, San Sebastián, Spain	JOSE RAFAEL MONEO ARQUITECTO
453	WHITEWATER KAYAKING COURSE	Kościuszko water ledge on the Vistula river, Cracow, Poland	authorSKA PRACOWNIA designOWO-PLASTYCZNA
454	STAR CITY CASINO, HEALTH CLUB POOL	Sydney, New South Wales, Australia	THE COX GROUP
455	JC PENNEY LIFE INSURANCE COMPANY PLANO	Texas, USA	HKS INC.
456	QUAY WEST	Melbourne, Victoria, Australia	HPA/MIRVAC GROUP
458	FOUNTAINS OF BELLAGIO	Las Vegas, Nevada, USA	WET DESIGN
459	TECHNOLOGICAL CENTRE C.N.R.	Naples, Italy	PICA CIAMARRA ASSOCIATI, G. SQUILLANTE
460	HOTEL LOTTE CHEJU RESORT	Island Cheju, South Korea	WIMBERLY ALLISON TONG&GOO
461	Museum FLOWERHILL	Wakayama, Japan	KISHO KUROKAWA ARCHITECT & ASSOCIATES
462	MEDICAL CENTRE HEALTH PARK	Fort Myers, Florida, USA	HKS INC.
463	WESTGATE	Harare, Zimbabwe	DEVELOPMENT DESIGN GROUP, INC.
466	NTT SHINJUKU BUILDING PLAZA SQUARE	Tokyo, Japan	BALMORI ASSOCIATES, INC.
467	101 COLLINS STREET-SKYSCRAPER	Melbourne, Victoria, Australia	JOHN BURGEE NEW YORK
468	MEMPHIS BOTANIC GARDEN	Memphis, Tennessee, USA	THE HAIZLIP FIRM
471	COMMONWEALTH LAW COURTS FORECOURT- Square in front of the court building	Melbourne, Victoria, Australia	HASSEL PTY LTD.
473	CATHEDRAL SQUARE - HOTEL	Brisbane, Queensland, Australia	WOODS BAGOT
474	THE VENETIAN RESORT HOTEL CASINO	Las Vegas, Nevada, USA	WIMBERLY ALLISON TONG&GOO
475	HAUS DER DEUTSCHEN WIRTSCHAFT INTERNATIONAL CONFERENCE CENTRE	Berlin, Germany	ARCHITEKTEN SCHWEGER + PARTNER
476	OSAKA	Osaka, Japan	KISHO KUROKAWA ARCHITECT&ASSOCIATES
477	CITRUS PARK TOWN CENTER	Tampa, Florida, USA	RTKL ASSOCIATES INC.
478	PALACE OF THE GOLDEN HORSES	Kuala Lumpur, Malaysia	WIMBERLY ALLISON TONG&GOO
479	NEW WING OF THE VAN GOGH MUSEUM-Museum	Amsterdam, Netherlands	KISHO KUROKAWA ARCHITECT&ASSOCIATES
480	EASTGATE - SHOPPING CENTRE	Harare, Zimbabwe	DEVELOPMENT DESIGN GROUP INC.
482	BAYSHORE GARDENS	Vancouver, Canada	VAUGHAN LANDSCAPE PLANNING&DESIGN LTD
483	SUZHOU SHERATON HOTEL	Suzhou, China	VAUGHAN LANDSCAPE PLANNING&DESIGN LTD
484	RWE AG HEADQUARTERS	Essen, Germany	INGENHOVEN OVERDIEK UND PARTNER
485	FENG CHIA UNIVERSITY	Taichung, Taiwan	J.J.PAN&PARTNERS
487	SEARS HEADQUARTERS	Hoffman Estates, Illinois, USA	PERKINS&WILL

	SUPERBLOCK PLAZA, SAN BERNARDINO CIVIC CENTER - Square in front of the		KATHERINE SPITZ ASSOCIATES AND
488	building	San Bernardino, California, USA	DMJM/KEATING
	HYATT REGENCY WAIKIKI RESORT &		
491	SPA	Honolulu, Oahu, Hawai, USA	WIMBERLY ALLISON TONG&GOO
492	BOYMANS-VAN BEUNINGEN MUSEUM	Rotterdam, Netherlands	HUBERT-JAN HENKET ARCHITECTEN BNA
493	DIAL CORPORATION HEADQUARTERS	Phoenix, Arizona, USA	HKS INC.
			MITCHELL/GIURGOLA ARCHITECTS,
494	SOLANA	Westlake/Southlake, Texas, USA	LEGORETTA ARQUITECTOS&HKS INC.
495	DENMARK PAVILION EXPO 2000	Hannover, Germany	PETER BYSTED, BYSTED A/S
496	HEADQUARTERS OF J.D.EDWARDS&CO.	Denver, Colorado, USA	FENTRESS BRADBURN ARCHITECTS
497	SHANGRI-LA HOTEL, GARDEN WING	Singapore	WIMBERLY ALLISON TONG&GOO
498	REUNION ARENA-HALL	Dellas, Texas, USA	HKS INC.
499	HEADQUARTERS OF GTE TELECOM	Irving, Texas, USA	HKS INC.
500	SUNTORY MUSEUM	Osaka, Japan	TADAO ANDO
502	EASTON TOWN CENTER	Columbus, Ohio, USA	DEVELOPMENT DESIGN GROUP INC.
503	TOKYO DOME SPORTS STADIUM	Tokyo, Japan	WET DESIGN
504	TEUCO-GUZZINI OFFICE BUILDING	Naples, Italy	PICA CIAMARRA ASSOCIATI
505	ATLANTIS-HOTEL	Paradise Island, Bahamas	WIMBERLY ALLISON TONG&GOO&HKS INC.
506	TAMPERE HALL	Tampere, Finland	ARKKITEHTITOIMISTO AARTELO, PIIRONEN
507	FUORIGROTTA NEW SQUARE	Naples, Italy	PICA CIAMARRA ASSOCIATI
508	WATERMARK HOTEL	Brisbane, Queensland, Australia	WOODS BAGOT
510	BARNETT PLAZA	Tampa, Florida, USA	HKS INC.
511	MIRAGE VOLCANO	Las Vegas, Nevada, USA	WET DESIGN
512	LAS VENTANAS AL. PARAISO	Los Cabos, Mexico	HKS INC.
513	GRAINGER, INC.	Lake Forest, Illinois, USA	PERKINS&WILL
514	MILLBROOK RESORT	Arrowtown, New Zealand	-
	ATHLETIC FACILITY, SIMON'S ROCK		
515	COLLEGE OF BARD - Indoor pool	Great Barrington, Massachusetts, USA	CENTERBROOK ARCHITECTS AND PARTNERS
516	HOLIDAY INN BALI HAI - HOTEL	Bali, Indonesia	DEVELOPMENT DESIGN GROUP INC.
517	HOTEL KLASSIS	Istanbul, Turkey	ATELIER D'ART URBAIN ARCHITECTS
	WATER PARK WILD WADI JUMEIRAH		
518	BEACH RESORT	Dubai, United Arab Emirates	WS ATKINS CONSULTANTS LTD
519	LIVE OAK COMMUNITY CENTER	Santa Cruz, California, USA	ELS ARCHITECTURE AND URBAN DESIGN
521	OASIS Park	Hashima Country, Gifu Prefecture, Japan	ENVIRONMENT DESIGN INSTITUTE
	CENTER FOR PHYSICAL ACTIVITY FOR		
522	STUDENTS	Athens, Georgia, USA	CANNON DESIGN, CDH PARTNERS
	STRIAR CENTER OF JEWISH		
523	COMMUNITY	Stoughton, Massachusetts, USA	CENTERBROOK ARCHITECTS AND PLANNERS
	MOODY GARDENS AQUARIUM-		
524	OCEANARIUM	Galveston Island, Texas, USA	MORRIS ARCHITECTS
525	WATERSPORT CENTRE, DIVING TOWER	Stanford University, California, USA	ELS ARCHITECTURE AND URBAN DESIGN
	NAOSHIMA CONTEMPORARY ART		
526	MUSEUM&ANNEX	Kagawa, Japan	TADAO ANDO
			VAUGHAN LANDSCAPE PLANNING&DESIGN
528	NITOBE GARDENS	Vancouver, B.C., Canada	LTD
529	SHOPPING CENTER CAMBRIDGESIDE	Cambridge, Massachusetts, USA	ARROWSTREET INC.
			VAUGHAN LANDSCAPE PLANNING&DESIGN
531	DR SUN YAT-SEN GARDEN	Vancouver, B.C., Canada	LTD
532	MYSTIC MARINE LIFE AQUARIUM	Mystic, Connecticut, USA	CESAR PELLI&ASSOCIATES INC.
534	OLIMPIC TRAINING CENTRE	Colorado Springs, Colorado, USA	CANNON DESIGN
535	ALANBREA RESIDENTIAL ESTATE	Attwood, Victoria, Australia	HASSEL PTY LTD.
			JEAN-PAUL VIGUIER, PATRICK BERGER, ARCHITECTS AND ALAIN PROVOST, GILLES
536	CITROEN PARK	Paris, France	CLEMENT LANSCAPE ARCHITECTS
	MARKING HIGH TIDE AND WAITING FOR		VAUGHAN LANDSCAPE PLANNING&DESIGN
537	LOW TIDE PAVILIONS, DAVID LAM PARK	Vancouver, B.C., Canada	LTD
538	MINGARA RECREATION CLUB	Sydney, New South Wales, Australia	WOODS BAGOT
539	RITZ-CARLTON HOTEL&RESORT	Sharm El Sheik, Egypt	DILEONARDO INTERNATIONAL INC.
	EARLYWINE PARK / FAMILY RECREATION		
540	FACILITY	Oklahoma, USA	BECK ASSOCIATES ARCHITECTS
541	VILLA BORTOLOTTI	Viadana, Mantova, Italy	AURELIO CORTESI ARCHITETTO
542	BERNSTEIN HOUSE	East Hampton, New York, USA	CENTERBROOK ARCHITECTS AND PLANNERS
544	DESERT HOUSE	Paradise Valley, Arizona, USA	STEVE MARTINO&ASSOCIATES
	ANCHORAGE POINT, WESTFERRY ROAD -		
548	RESIDENCES	London, UK	MICHAEL SQUIRE AND PARTNERS
550	THE WHITE HOUSE	Scottsdale, Arizona, USA	ANTOINE PREDOCK ARCHITECT
553	HOUSE AT TORO CANYON	Montecito, California, USA	BARTON MYERS ASSOCIATES INC.
556	ROXBURY DRIVE RESIDENCE	Beverly Hills, California, USA	ARXIS DESIGN STUDIO
557	GUYOTT HOUSE	Connecticut Coast, Connecticut, USA	CENTERBROOK ARCHITECTS AND PLANNERS
558	ROSS STREET RESIDENCE	Toorak, Victoria, Australia	MCBRIDE CHARLES RYAN
559	ORLAND PARK VILLAGE CENTER	Orland Park, Illinois, USA	PERKINS&WILL
	EXPLORATION SQUARE - Museum for		
560	children and educational centre	Wichita, Kansas, USA	MOSHE SAFDIE AND ASSOCIATES INC.
	ADLER PLANETARIUM AND ASTRONOMY		
561	MUSEUM SKY PAVILION	Chicago, Illinois, USA	LOHAN ASSOCIATES
562	KITAKAMI CANAL MUSEUM	Miyagi, Japan	KENGO KUMA&ASSOCIATES
	WATER RECLAMATION AND		
	MANAGEMENT SCHEME WATER		
563	TREATMENT PLANT, OLYMPIC PARC	Sydney, New South Wales, Australia	WOODS BAGOT
565	PEGGY NOTEBAERT NATURE MUSEUM	Chicago, Illinois, USA	PERKINS&WILL
566	THE MAASTHEATER- THEATRE	Rotterdam, Netherlands	HUBERT-JAN HENKET ARCHITECTEN BNA
567	CONVENTION AND EXHIBITION CENTRE	Sydney, New South Wales, Australia	ANCHER MORTLOCK WOOLLEY
568	NORTHERN WATER FEATURE- Fountains	Sydney, New South Wales, Australia	HANGREAVES ASSOCIATES
569	YERING STATION WINERY - Vineyard	Yering, Victoria, Australia	CONTI ARCHITECTS
570	KIBI-CHO CITY HALL	Wakayama Prefecture, Japan	KISHO KUROKAWA ARCHITECT&ASSOCIATES
571	FAR OAKS GOLF COURSE	Fairview Heights, Illinois, USA	MACKEY MITCHELL ASSOCIATES
572	STONE MUSEUM	Nasu, Tochigi Prefecture, Japan	KENGO KUMA&ASSOCIATES

573	DEWOLFE BOATHOUSE - ROWING CAMP	Cambridge, Massachusetts, USA	ARCHITECTURAL RESOURCE CAMBRIDGE, INC.
574	FRENCH EMBASSY	Muskat, Oman	ARCHITECTURE STUDIO
575	EUROPEAN PARLIAMENT	Strasburg, France	ARCHITECTURE STUDIO
576	HYATT REGENCY MAUI RESORT&SPA	Maui, Hawai, USA	WIMBERLY ALLISON TONG&GOO
577	HACIENDA DEL MAR RESORT&SPA	Los Cabos, Mexico	WIMBERLY ALLISON TONG&GOO
578	HOTEL BORA BORA	Bora Bora, French Polinesia	WIMBERLY ALLISON TONG&GOO; MICHAEL PREVOT
579	TOYOTA BRIDGE	Aichi Prefecture, Japan	KISHO KUROKAWA ARCHITECT&ASSOCIATES
580	THE PALACE OF THE LOST CITY - HOTEL	Sun City, South Africa	WIMBERLY ALLISON TONG&GOO; BURG DOHERTY BRYANT&PARTNERS
581	SEA HAWK HOTEL&RESORT - HOTEL	Fukuoka, Japan	BALMORI ASSOCIATES, INC.; SOMA LANDSCAPE PLANNING CO., LTD.; CESAR PELLI ASSOCIATES
582	HYATT REGENCY LA MANGA CLUB - HOTEL	Cartagena, Murcia, Spain	WIMBERLY ALLISON TONG&GOO; JAIME J. BOURNE&ASSOCIATES
583	ADELPHI SPRINGS - RESIDENCES	Benowa, Queensland, Australia	DESIGN DETAILS PTY LTD; RAPTIS GROUP
584	BUBHAJIT OFFICE BUILDING	Thailand	ARCHITECTS 49 LIMITED
585	CROW CASINO	Melbourne, Australia	WET DESIGN
586	ANGGANA DANAMON	Jakarta, Indonesia	WET DESIGN
588	MODERN ART MUSEUM	Wakayama Prefecture, Japan	KISHO KUROKAWA ARCHITECT AND ASSOCIATES
589	SUNTEC CITY - Fountain	Singapore	TSAO&MCKOWN ARCHITECTS, P.C.
590	ROBINA TOWN CENTRE	Gold Coast, Queensland, Australia	EDAW (AUST.) PTY LTD.
591	IRVINE SPECTRUM - ENTERTAINMENT CENTRE	Irvine, California, USA	RTKL INTERNATIONAL LTD
592	MIDFIRST CREDIT UNION, INC.	Franklin, Ohio, USA	ELLIOTT + ASSOCIATES ARCHITECTS
593	LOS ANGELES MUSIC CENTRE - Fountain	Los Angeles, California, USA	WET DESIGN
594	PHOENICIAN HEALTH&SPA RESORT	Broadbeach, Queensland, Australia	DESIGN DETAILS PTY LTD; RAPTIS GROUP
597	SPENCER THEATER FOR THE PERFORMING ARTS-TEATR	Alto, New Mexico, USA	ANTOINE PREDOCK ARCHITECT
598	FUGAN UNGA KANSUI PARK	Japan	MITSURU SENDA + ENVIRONMENT DESIGN INSTITUTE
600	THE ORCHID AT MAUNA LANI - HOTEL	North Kohala Coast, Hawai, USA	WIMBERLY ALLISON TONG&GOO
604	LISBOA EXPO '98	Lisbon, Portugal	WET DESIGN
608	FOUR SEASONS RESORT	Wailea, Maui, Hawai, USA	WIMBERLY ALLISON TONG&GOO
609	MILLENIA WALK - SHOPPING CENTRE	Singapore	WET DESIGN
611	FOUNTAIN Square	Dallas, Texas, USA	WET DESIGN
614	BUGIS JUNCTION - SHOPPING CENTRE	Singapore	WET DESIGN
615	NAVY PIER - LUNAPARC	Chicago, Illinois, USA	WET DESIGN
617	MOBILE CONVENTION CENTER	Mobile, Alabama, USA	TVS&A
618	MCCORMICK Square	Chicago, Illinois, USA	TVS&A
619	THE RITZ-CARLTON, MILLENIA - HOTEL&SPA	Singapore	WET DESIGN
622	GLENRIDGE HIGHLAND OFFICE BUILDING	Atlanta, Georgia, USA	TVS&A
624	THE RITZ-CARLTON HUNTINGTON HOTEL	Pasadena, California, USA	WIMBERLY ALLISON TONG&GOO; MCCLELLAN, CRUZ, GAYLORD&ASSOCIATES
626	GRAND HYATT BALI	Nusa Dua, Bali, Indonesia	WIMBERLY ALLISON TONG&GOO; NAOKAZU HANADOH/KAZUBIKO KUROKA ARCHITECT INTERNATIONAL
627	FOUR SEASONS HOTEL MEXICO CITY	Mexico City, Mexico	WIMBERLY ALLISON TONG&GOO; GTM INTERNATIONAL
628	GAS COMPANY TOWER	Los Angeles, California, USA	WET DESIGN
630	WELLESLEY COLLEGE SPORTS CENTER	Wellesley, Massachusetts, USA	HARDY HOLZMAN PFEIFFER ASSOCIATES
632	THE RITZ-CARLTON BALI	Jimbaran, Bali, Indonesia	WIMBERLY ALLISON TONG&GOO; P.T. HARAPAN SATRIA TIGA
633	GRAND CHANCELLOR HOTEL	Hobart, Tasmania, Australia	WIMBERLY ALLISON TONG&GOO; DEVINE ERBY MAZLIN
634	POWERLINK QUEENSLAND HEADQUARTERS	Brisbane, Australia	PEDDLE THORP ARCHITECTS
635	SAGAMIGAWA RIVER MUSEUM	Japan	MITSURU SENDA+ENVIRONMENT DESIGN INSTITUTE
636	MIKASA PARK APPROACH ROAD	Japan	MITSURU SENDA+ENVIRONMENT DESIGN INSTITUTE
637	CENTRAL PLAZA - SKYSCRAPER	Kuala Lumpur, Malaysia	T.R. HAMZACH&YEANG SDN BHD
639	FOUR SEASONS HOTEL CHINZAN-SO	Tokyo, Japan	WIMBERLY ALLISON TONG&GOO; YOZO SHIBATA&ASSOCIATES(KANKO KIKAKU SEKKEISHA)
640	FREEMAN ATHLETIC CENTER	Wesleyan University, Middletown, Connecticut, USA	HERBERT S. NEWMAN AND PARTNERS, PC.
641	CENTENNIAL OLYMPIC PARK	Atlanta, USA	EDAW INC.
642	3COM CORPORATION	Santa Clara, California, USA	STUDIOS ARCHITECTURE
643	NAUTICUS - National Marine Museum	Norfolk, Virginia, USA	CENTERBROOK, ARCHITECTS AND PLANNERS
647	ONE ALDWYCH - HOTEL	London, UK	JESTICO+WHILES ARCHITECTS
648	ESAKA PARK	Japan	NIKKEN SEKKEI
650	YUSUHARA VISITOR'S CENTER	River Shimanto, Japan	KENGO KUMA&ASSOCIATES
651	LONG BEACH AQUARIUM	Long Beach, California, USA	HELLMUTH, OBATA+KASSABAUM, INC.
652	SHILLA CHEJU HOTEL	Cheju Island, South Korea	WIMBERLY ALLISON TONG&GOO; SAM WOOD ARCHITECTS AND ENGINEERS
653	PLEASANTON AQUATIC CENTER	Pleasanton, California, USA	ELS/ELBASANI&LOGAN ARCHITECTS
654	MEMORIAL POOL	Toronto, Ontario, Canada	A.J. DIAMOND, DONALD SCHMITT AND COMPANY; BRUCE STRATTON ARCHITECT
655	CANAL CITY HAKATA - SERVICES AND SHOPPING CENTRE	Fukuoka, Japan	SELBERT PERKINS DESIGN COLLABORATIVE, THE JERDE PARTNERSHIP INTERNATIONAL INC.; EDAW INC.; WET DESIGN
657	NATIONAL COWBOY HALL OF FAME	Oklahoma, USA	FENTRESS BRADBURN ARCHITECTS
658	MIRAMAR HOTEL	El Gouna, Egypt	MICHAEL GRAVES&ASSOCIATES
659	SOLID SQUARE	Japan	NIKKEN SEKKEI
660	HYATT REGENCY KAUAI RESORT&SPA	Poipu Beach, Kauai, Hawai, USA	WIMBERLY ALLISON TONG&GOO
661	ROTHSCHILD SUMMER PAVILION	Corfu, Greece	ESTUDIO B.C., JAVIER BARBA
663	SHEIMER HOUSE	Manhattan Beach, California, USA	RAY KAPPE ARCHITECTS/PLANNERS
674	GIRO SUMMER PAVILION	Sitges, Spain	ESTUDIO B.C., JAVIER BARBA
676	MONJO HOUSE	Minorca, Spain	ESTUDIO B.C., JAVIER BARBA
678	MATTHEWS HOUSE	East Hampton, New York, USA	ALFREDO DE VIDO ARCHITECTS

682	HOUSE L	Brighton, Melbourne, Australia	BOCHSLER + PARTNERS PTY LTD
686	SARA HOUSE	Greenwich, Connecticut, USA	ALFREDO DE VIDO ARCHITECTS
688	DRAKE HOUSE	Pound Ridge, New York, USA	ALFREDO DE VIDO ARCHITECTS
690	MCCONOMY HOUSE	Pittsburgh, Pennsylvania, USA	ALFREDO DE VIDO ARCHITECTS
693	BROKEN TOP GOLF CLUBHOUSE	Bend, Oregon, USA	WIMBERLY ALLISON TONG&GOO
694	CIVIC ARTS PLAZA - VISUAL ART CENTRE	Thousand Oaks, California, USA	ANTOINE PREDOCK ARCHITECT
	UCB WORLD HEADQUARTERS - INTERNATIONAL BIOPHARMACEUTICAL		
696	PRODUCTION COMPANY	Brussels, Belgium	ASSAR
697	COURAN COVE RESORT	South Stradbroke Island, Queensland, Australia	DARYL JACKSON PTY LTD ARCHITECTS
698	FLOATING PAVILION	Groningen, Netherlands	MAKI AND ASSOCIATES
	ANCORIS - KIYOSATO KOGEN FUJIYA		
699	HOTEL	Kiyosato, Yamanashi Prefecture, Japan	HIDETO HORIIKE&URTOPIA
700	SAZANAMI HALL	Shiga, Japan	KISHO KUROKAWA ARCHITECT&ASSOCIATES
702	ST. THOMAS MORE CHURCH	Paducah, Kentucky, USA	WILLIAMSON POUNDERS ARCHITECTS, P.C.
	CENTRO OBERHAUSEN - SHOPPING		
703	CENTRE	Oberhausen, Germany	RTKL INTERNATIONAL LTD
704	FORUM NAVALIS - HOTEL	Hakone, Kanagawa Prefecture, Japan	HIDETO HORIIKE&URTOPIA
	TANJONG JARA BEACH HOTEL / RANTAU		
705	ABANG VISITOR CENTER	Terengganu, Malaysia	WIMBERLY ALIISON TONG&GOO
706	MUSÉE PINAULT - Museum	Ile Segium, Paris, France	MVRDV
707	SLOTER PARK SWIMMING POOL	Amsterdam, Netherlands	MVRDV
717	SIEKIERKOWSKI BRIDGE	Warsaw, Poland	TRANSdesign GDAŃSK
718	HIMEJI CHILDREN'S SEMINAR HOUSE	Himeji, Hyogo, Japan	TADAO ANDO
719	COPERNICUS SCIENCE CENTRE	Warsaw, Poland	JAN KUBEC,MAGDA GILNER, MICHAŁ TOMANEK, ZBYSZKO BUJNIEWICZ
720	HIMEJI CHILDREN'S MUSEUM	Himeji, Hyogo, Japan	TADAO ANDO
	ANNEXE TO THE HIMEJI MUSEUM OF		
721	LITERATURE	Himeji, Hyogo, Japan	TADAO ANDO
722	HIMEJI MUSEUM OF LITERATURE	Himeji, Hyogo, Japan	TADAO ANDO
724	CHURCH ON THE WATER	Hokkaido, Japan	TADAO ANDO
725	TIME'S SHOPPING CENTER	Kyoto, Japan	TADAO ANDO
726	ROKKO HOUSING II	Nada, Kobe, Hyogo, Japan	TADAO ANDO
	HYOGO PREFECTURAL MUSEUM OF MODERN ART + KOBE WATERFRONT		
727	PLAZA	Hyogo, Japan	TADAO ANDO
728	MUSEUM OF WOOD	Hyogo, Japan	TADAO ANDO
729	UNDERWATER MUSEUM (MUSA)	Cancun, Mexico	Jaime Gonzalez Cano, Roberto Diaz, Jason de Caires Taylor
730	Underwater statue	Attersee, Austria	no data
731	Spatial grid	Attersee, Austria	no data
732	Underwater tunnels	Zakrzówek, Cracow, Poland	Maciej Curzydło
733	Underwater tunnels made from pipes	Zakrzówek, Cracow / former Gródek, Poland	Mirosław Kierepka
734	Glass domes	Attersee, Austria	no data
735	Training platform	Zakrzówek, Cracow, Poland	Curzydło
736	Shi Cheng (Lion City)	China	no data
737	Neptune Memorial Reef	Miami USA	Gary Levine
738	Marine Museum	Karlskrona, Sweden	Henderus Malstrom
739	Bridge	Texas	Riveira Miro
740	HAFENCITY WHARF	Hamburg, Germany	EMBT
741	CENTRE OF HYDROTHERAPY	Nałęczów, Poland	Stelmach Bolesław
742	Pool	Lepe	Laguillo Ignacio, Schonegger Herald
743	Botanic garden	Bordeaux, France	Mosbach Katarina
744	Cultural centre	Noumea, New Caledonia	Renzo Piano
745	PAUL KLEE CENTRE	Bern, Switzerland	Renzo Piano
746	IMPERIAL WAR MUSEUM	Manchester, UK	Libeskind Daniel
747	WATER WORLDS EXHIBITION PAVILION	Neeltje Jans, Netherlands	NOX Oosterius Associates
748	AMPHIBIOUS HOUSE	River Thames, UK	BACA Architects. Robert Barker and Richard Coutts
749	Concert hall	Bristol, UK	Benisch and Partner
750	Thermal baths	Merano, Italy	Baumann Zillich Architekten and Mateo Thun
751	Pool	River Seine, Paris, France	Robert de Busni
752	Pool	River Thames, London, UK	Lifschutz Davidson

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