What is Architecture made of? Contiguities and Serendipities with regard to water in the modern project

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This text describes the reunion between creation and the universal contiguity of thought, matter and form, and how certain forms of architecture are conceived of a single substance which is transferred to the elements that make up the work. This article questions the strictly technical condition of a large part of 20th-century architecture -especially that of the Modern Movement- with a “detached look” at the discipline from a technical point of view and taking into consideration the repertoire of materials. Although it is not possible to generalise and the routes taken by the contemporary architectural project are many and varied, we may speak of a certain line of thought derived from a universal contiguity (Ovid, Fourier, Calvino) present in certain architectural movements in history that mark a clear distinction between the building materials and the substance with which architecture is conceived. This text reflects on these questions taking water as an argument for creation in architecture.

In 1986, before his death, the artist Joseph Beuys created the work Lemon Light (Capri-Battery) (fig. 02). Upon a first approach, the installation is a modern metaphor that speaks of ecological balance and the balance that must be maintained between man-made objects and nature, and how the changes brought about by the latter may influence human creation. But beyond this ecological and environmental dimension, the installation is an in-depth look at the reunion of creation with the universal contiguity of thought, matter and form, a question that haunted the artist throughout his life and would become the main theme of his works and creations. The work shows how the qualities of a material may be transferred to others, endowing the set of elements that it consists of, with a body formed by a single substance. Beyond its appearance, the work has an extensive meaning, as it is part of the artist’s (Aktionen) collection, inspired by the changing states of bodies and energy transfer from thought to matter. Works such as Fat Chair (1960), The Honeypump at the FIU Workplace (1974-1977), Voglio vedere le mie montagne (1971) or 7000 Oaks (1982), are based on the energy that flows between different bodies seen as a single substance that envelopes objects and ideas beyond their own physical reality, and inform symbolically of the energy accumulated in matter.

The architects Herzog and De Meuron, who had collaborated with Joseph Beuys in some of the artist’s projects, executed a building extension in a garden in 1984, linking the creation to a full-grown Paulownia tree (fig. 03). The construction was influenced by the ideas of contiguity posed by Beuys in the 7000 Oaks installation created for documenta 7 at Kassel two years ago. The result of the extension is a tree-architecture tandem that shares a participatory energy that engages them on a mutual basis. The curve of the pavilion, the circulatory movements in the interior and the use of plywood in its construction, demonstrate a series of decisions motivated by the presence and energy that emanates from the tree, which leads to both objects of a different nature to be “rooted”, thus influencing the growth of the Paulownia tree and the life of the pavilion and its architecture from then on.

Years before the creation of Lemon Light, the writer Italo Calvino had already discussed, in his essay entitled Ovid and Universal Contiguity (1979), the contiguity of all existing figures or forms (the firmament, gods, the animal or mineral kingdom, flora and human beings), establishing a closeness between the world of mythology -the gods- and the earthbound realm of human beings and nature. In his essay, Calvino situates the terrestrial world that Ovid speaks of in “a universe in which space is densely packed with forms which constantly swap size and nature (...), both intertwine around each other in a double spiral”, sharing the same substance. The idea of placing the action within a scenario of “blurred confines between different worlds”, according to the text, involved overcoming the distance that separates these two antagonistic states of nature. By means of contiguity, mythology and quotidian reality may be transmuted into a single body, encountering associations and similarities through stones and other terrestrial materials that take shape as mythological beings.

Both Beuys and Calvino, two contemporary and influential figures in their respective fields, spoke of the universal contiguity of matter, concepts and form to develop their creations in the second half of the 20th century. In Beuy’s case, the idea of contiguity is the extension of the vital experiences of the artist and his Aktionen, flows that connect the past, present and future to overcome the trauma of the war that would accompany him throughout his life and would be a part of the artist's works in the use of unstable materials that represented states of transformation in permanent evolution. In Calvino’s case, it was the intellectual construction of a body of literature conceived by means of a flow of transitory and continuous states that freely and indistinctly, move between different realities. Both creators approached their works through a dimension that transcended materiality, basing their ideas and realisations on the transubstantiation of the work and the natural energy that was conferred on humanity beyond its physical reality, a unique and symbolic substance that links thought, matter and form by the contiguity of the elements that make up the work.

After the Second World War, the artists of the European avant-garde movements of the second half of the 20th century recovered their interest in the disintegration of organic material in general and the transmutations of the human body, and idea that would extend to other physical elements of Nature. Recycled waste materials that continued to deteriorate after the work was finished became present in their works in an evolutionary and transformative process. Tapies and Saura in Spain, Dubuffet in France, Bacon in England, Kounellis in Greece, Auerbach and Beuys in Germany, among others, explored the disintegration and dissolution of matter, with special interest in...
questions that linked thought, energy and transformation, in a material that converts itself into primal substance that is transferred, taking on different forms in the process. Later on, in the early 21st century, art would extend these questions to a body of work of a higher order, more interested in social questions that included collaborative processes within social, cultural and political contexts, involving persons, the city and their environment by means of projects with a strong civic background as the motive. The mythical and symbolic conditions that move a people to create the historical edifices of the past would be replaced by a symbolic terrestrial dimension of human beings and social conflicts. Works such as When Faith Moves Mountains by Francis Alÿs, an installation created in Lima in April 2002, where 500 volunteers gathered to move a 500 metre sand dune ten centimetres from its former position by using a simple shovel; or the collaborative practices of Beuys in 7000 Oaks. Urban Forest instead of city administración (1982), an installation that brought together the citizens of Kassel to plant 7000 oaks along with as many basalt stones in different public areas of the city; are collective explorations of communication and social cooperation that may be transferred to other places, and have the power to congregate around them and for a common substance, social cooperation that may be transferred to other places, and have to plant 7000 oaks along with as many basalt stones in different public "zipper" that unites varied items, energetic actions that permit the conversion of thoughts, objects, situations or memories into material forms conceived of a common substance. Concepts such as transference, contamination, metamorphosis or transubstantiation (in the line of Beuys or Calvino), are used to overcome the limits posed by the discipline of architecture and its construction, taking recourse to the ability of the architectural project to imagine connections or arguments in the "borders separating different worlds", with relations that extend its meaning and give architecture a vital and symbolic dimension.

Universal contiguity has been a characteristic of certain moments of artistic codification throughout the history of architecture, which have led to the conversion into symbols of a series of experiences that overcome, by means of intellectual abstraction, the simple pragmatism of construction. Pre-Socratic substances such as air, fire, light, water and even stone or earth, to which may be added phenomenon such as humidity, temperature or sound, constitute a group of elements and actions that may be defined as no materials and form part of an essential thought that envelops architecture with an energy dimension that can bring together and consolidate the constructive consideration of the work around them. Some historical architectures conceived around a single substance such as the Roman Pantheon of Agrippa and the mathematical relationship between light and geometry, the Acropolis of Athens, built of stone carved from the hill on which it stands, the Inca city complex of Machu Pichu, a complex, hydrological, urban and agricultural system built on dry stone terraces in the Andes 2400 metres above sea level on astronomical lines and paying reverence to the mountains—gods—that surround them, and the Alhambra in Granada, around water and an idea of the garden of paradise on earth; they are bearers of an original sublime energy that is unleashed from the architectural project beyond questions of programming or simple constructive materiality. Light, stone and water to conceive of a series of architectural projects based on experimenting with a supramaterial that endows them with meaning and a symbolic dimension. The almost immaterial condition of these basic materials, especially that of water and light which neither age nor possess memory, are in a state of continuous flux and possess neither formal nor material stability—in contrast to stone—have the ability to erode and transform objects, leaving their traces behind as they pass over them, extending their material condition with new relations and forms, becoming “pure content” owing to the effect of a greater substance.

Some historic architectures have used water as a creative substance that is representative of an unearthly landscape. This is the case of the palatial, religious and ceremonial complex of Tipón in the Incan civilisation near Cuzco, an admirable system that distributes water for agricultural irrigation and co-exists with religious constructions and the royal palace among beautiful gardens on stone terraces (fig. 08). Or we might speak of the Alhambra of Granada, of Islamic Spain, a palace of water among patios, gardens and walls as a metaphor for paradise. All of these architectural complexes transcend their daily uses to become places dedicated to the veneration of water. In these architectures, water is the substance that moulds the landscape and the space at different levels and with different manifestations. In the case of the Alhambra, its presence takes on different aspects, it may be symbolic, metaphorical or abstract, it may act as an analogy to certain forms and situations that evoke paradise at the same time that it regulates the temperature of certain rooms and patios in perfect synchrony between the phenomenological, the artistic and the technical, in addition to possessing sublime poetic and emotional connotations.

Light and water create different effects and establish links with an extensive and varied iconographic repertoire in the Alhambra. There are mirrored reflections, transparencies, dissolution and multiplication of forms, image refraction, weightlessness and lightness, broadening the perception and meaning of the palace and garden architecture which extends beyond its material limits. The evanescent created by water in the interior spaces and the patios diffuses the borders between reality and fiction to create imaginary dream-like landscapes (fig. 06). The effects of water in these spaces is truly beautiful and astounding, not only due to the aesthetic appearance that it creates, but also because it questions the bases of certain concepts that have been traditionally linked in Western culture such as solidity-opacity and lightness/opacity. By contemplating the use of water in the Alhambra, it is possible to propose a dissolution of the conventional associations of this type with new associations that take us to a fascinating world where the opaque may be light, and what is solid, transparent. Occasionally, this use of water also becomes a subtle alteration of artistic elements when they become, along with white marble, the substantial material of the work of art, as is the case of the fountain in the Court of the Lions.

The Alhambra is an aesthetic experience conceived of a unique substance that makes it timeless. What makes it truly special is its ability to trap time in a place where life is present in every corner and at all moments, through a surprising contiguity between nature, architecture and ornamentation, as the symbol of a culture. It is difficult to forget the sensations evoked by these spaces full of life that preserve humanity in their architecture.

This symbolism present in the Alhambra and in some leading historical architectures, was reduced in 20th century architecture and especially during the Modern Movement, to a strictly technical problem and construction to a collection of materials and established solutions, in comparison to the architecture of other periods that had a symbolic nature. Few architectural styles of this period have taken into consideration pre-Socratic substances when conceiving of an architectural project. Water, similar to other supramaterials, was
not deemed to be a substance relevant in architecture as compared to concrete, steel or wood which can be put together in a logical building process. Water almost always appears as an additional body (a pool, a tank, or as part of the landscape) in the works of this period, or it is dealt with from a strictly technical point of view. There are very few examples that include it as an essential substance of the architectural project and at the same time, are a source of connections and transfers between the different elements that represent the work. Its use has been reduced to mere contemplation and to establish sensory experiences around water, almost always in exceptional situations. We may at least find some cases, where water has become the identifying substance that shapes the architecture in contiguity with it and its transformations, a process that is open to the possibility that a “miracle” of transubstantiation of ideas, shapes and materials to achieve a single form in the work, as in the alchemist’s laboratory. This is the case of Farnsworth House (1950) designed by Mies van der Rohe, which was conceived of as a machine that would float among the trees in the landscape with the flooding of the River Fox; of the remodelling of the Querini Stampalia Foundation (1981) by Carlo Scarpa, where the ground floor and the garden emerges and submerges under water; of the shape blurring by the natural flooding and changes in the water levels of the Venetian Lagoon; or the Casa de la Lluvia (House of Rain, 1979) in Cantabria by Juan Navarro Baldeweg, a resonance chamber that only be seen in its entirety when it rains and by the changes wrought by rainwater on the material and the appearance of the house. But above all, we can find the universal contiguity between matter, idea and form mentioned by Calvino in his essay, in the pools of Piscinas Das Marés (1966) by Álvaro Siza, built within the rocky limits of the coast and with water from the Atlantic Ocean itself, as if it were a tank that had been filled with a basinful of the same water, thus diluting its form in contiguity with water from the ocean over which it extends. Water within water for a project based on the transubstantiation of a single material till it arouses fascination within an enclosed space that blurs its borders. Few creations such as these undertook an action based on a universal substance in the 20th century that would direct the project design in line with the added landscapes that Beuy would later demonstrate in his work Lemon Light and which the critic Jean Louis Cohen would define as ”making environments the building matter (substance) of the work”. Continuing with this line of thought and action, it is possible that the interest and relevance of the paths laid by Dimitri Pikionis to connect Athens to the hill of the Acropolis and the Filippappo hill (1954-1967) are largely due to a project undertaken from a perspective of contiguity with the landscape’s material, stone. The work is a cultured manifestation of contemporaneity on the territorial contiguity of time and matter. The layout of paths on the rocky geography designed by Pikionis constitutes a narrative on the different time periods of the city of Athens. The work establishes a new harmony with the landscape through a united project in stone that consists of extending the use of urban waste material proceeding from the demolishing of old buildings and other materials unearthed during archaeological excavations, all the way to the top of the Acropolis, creating a landscape in contiguity with the city and the natural stone hill. The passage though the archaeological site is a passage from geological material to urban and architectural material that changes shape and state and extends unevenly over the topography. The group of elements that make up this network of paths formed by natural stone and sculpted stone with multiple forms and geometries, laid out between trees and land, physically and symbolically connects the city of the past and the city of the present through roads with different levels and landscape connections. The connection between both cities is not only physical, but it also extends to memory in a process of territorial restoration, stone upon stone, and in a transmutation of matter in space and time. The works and essays of Pikionis speak of a certain “universal life” of matter that transcends its physical nature and, as mentioned by Alberto Ferlenga in his essay Signs, finds general commonalities between the different uses and forms of expression of stone: “the combination of different experiences is not a desire or a reference for architects, rather it is part of a mechanism by which places all over the world state their similarities and differences at the same time”. Although it is not possible to generalise and the routes taken by the contemporary architectural project are many and varied, we may speak of a certain line of thought and a more conceptual action in recent architecture, in line with the actions of Dimitri Pikionis or Álvaro Siza, who establish a clear distinction between the building materials and the substance with which architecture is conceived. We are speaking of the transubstantiation of forms and materials inherited from a cultural tradition specific to places and their history, where time and matter play a different role. If construction in the Modern Movement entailed adding, melding, overlaying... in an ordered and sequential process of assembling materials that ended with the final finish, now it would be the primordial substance (thought/argument) that conceived the work that would give form to the architecture. Persons, history, objects and pre-existences, along with materials and nature, become the materials for the architectural project seen within a single substance and a concrete order of links to life, beyond an established set of building systems.

SERENDIPITIES. EPILOGUE

In the year 2009, in the region of Lanjarón located at the foothills of the Sierra Nevada, a project to recover certain abandoned constructions next to a river was carried out, with the goal of re-establishing the memory of a village and its links to water. The work is the result of a series of environmental, symbolic, urban planning, architectural and social implications, that takes water as the guiding thread of a heritage project where many different aspects of life in a village and its history with water play a role. The project makes an appeal to the relationships with this material good, on the basis of a series of contingencies with the environment, the recovery of certain pre-existences and the incorporation of fortuitous events and encounters that took place over the course of the works, working its way into the local history of its inhabitants through a collaborative citizens’ process. In this entire process water becomes the substance that establishes contiguity with the different “materials” that constitute the activity into a process open to experimentation. Given the few available resources, the activity has consisted of recycling and reusing a series of architectural works and other surrounding environmental elements, adapting old sheds and the flows of water from the canal and the river by means of a simple system of passages and spaces built for water, which are flooded according to the irrigation times for the nearby crop fields. This creates a scenery based on water and architecture that changes its appearance with the passage of the day and the agricultural tasks that are carried out in the surroundings. The project highlights its narrative condition to incorporate a series of facts and experiences that have shaped the architecture in a continuous process that is open to experiences under the topic of water. The building elements and solutions are a result of participatory processes and certain meteorological accidents that occurred during the construction. The tree trunks that are spread over the floor of the square and flooded with water from the irrigation canal are from recycling large fallen eucalyptus trees after a storm that lasted for days hit the nature reserve in this area, similar to the 17 orange trees that are planted in this space that tell a wider tale; that of 17 persons from Lanjarón, and the water that shelters and provides shade to this place that pays homage to water. The space is accessed from the courtyard of the former slaughterhouse by means of a wooden pavilion that evokes the cover of the stream of La Capuchina, an 18th century construction that housed the first spring of water in Lanjarón and whose recovery, as well as the contents displayed inside, is the result of the mayor’s initi-
ing the town’s inhabitants to open their closets and cupboards and to shake the dust off their ancestors’ belongings with links to water. This resulted in the unearthing of a photo of this symbolic space that no longer exists today, that once covered the source of the water. This landscape intervention, similar to works such as When Faith Moves Mountains or 7000 Oaks. Urban forest instead of cherry trees” is part of the Permanent Collection of Architecture edited by Taschen, Gustavo, Gili, Arquia Foundation and Electa. His work has been selected for exhibitions such as On Site (MoMA) New York, XI and III Biennial of Spanish Architecture and Urbanism (BEAU), and for the 18th and 7th editions of Biennale di Architettura di Venezia. Nominated for the Mies van der Rohe Awards (2007), Enor Prize (2011), XI BEAU Architecture Recognition, and the VIII BIAU prize. His work “Model. House in a garden of cherry trees” is part of the Permanent Collection of Architecture and Design at the MoMA in New York (2006). He has been Co-Director of the XIII BEAU (2015-2017). His book “La tradición innovada. Escritos sobre regresión y modernidad” has won the FAD Thought and Critics Award 2014.

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Notes

01. The original work which measures 8x11 cm is part of the Scottish National Gallery’s collection. See AA.VV., Joseph Beuys, Museo Nacional de Arte Reina Sofía, Madrid, 1994.

02. Beuys was of the idea that there was a global energy principle that extended to all matter in the universe and to the mental energies produced by the individual. In a speech made eleven days before his death when he was awarded the Wilhelm Lehmbruck Prize, Beuys spoke of the future of artistic creation as a notion of energy that not only captures the material and physical aspects but also extends to the spiritual, the immaterial.

03. In the later years of his life, the writer Italo Calvino (1923-1985) began collecting, in a series of essays, his “classics”, which include the essay on Ovid and metamorphosis under the title “Ovid and Universal Contiguity”. The essay was published along with other texts in a collection titled Perché leggere i classici, Mondadori, 1991.


05. OVIDIUS NASO, Publius, Metamorphoses (Complete work in three volumes), Editorial Gredos, Madrid, 2008.

06. The materials used by the artist are uncommon in the world of art but common in daily life: animal fat, wax, honey, felt or copper, unstable materials that are susceptible to an imminent transformation with minimal energy. The art historian and curator of exhibitions Kristien Stiles, in her speech entitled Accesorios para la memoria. Las Aktionen de Joseph Beuys at the MACBA in Barcelona in 1999, explained that Beuys’s (1921-1985) interest in the changes of state in matter and the transubstantiation of his works in autobiographical and are derived from the fable he describes in his biography of how he was saved from death by nomadic Tartars after his fighter plane crashed in the Crimea during the Second World War. His body was wrapped in animal fat (tallow) and felt (materials used by the artist in his works) until he was healed in a process of union of materials. For more information on the materials used by Beuys in his installations and the material and physical degradation of the artist’s work, see the article: BARKER, Rachel y BRACKER, Alison, “Dead: Long Live Beuys! Characterising Volutio, Longevity, and Decision-Making in the Work of Joseph Beuys”, in Tate Papers, Autumn 2006, n. 4.

07. Other artists such as James Turrell or Dan Flavin worked on the immaterial condition of light with installations that were very close to architectural projects based on sensory experiences that transformed the perception of space.

08. The project was executed in Ventanilla, a shantytown in the outskirts of Lima under the dictatorship of Alberto Fujimori who had been overthrown. The goal was to carry out an epic action as a response to a social and political problem that had spilled over into the streets with civilian protests on the streets. The project is a metaphor of collective power by means of a geological action performed within the framework of the Bienal de Arte Iberoamericano in Lima 2002, with the collaboration of students from the National Engineering University of Lima. For further information on this project and other collective and social actions, read the article by MANONELLES, Laia, “When Faith Moves Mountains: Political and Poetic Utopias”, in Revista de Estudios Globales y Arte Contemporáneo, 2016, No1, pp. 205-230.

09. The action was created for documenta 7 at Kassel in 1982 and ended with the placing of the final basalt piece next to the oak on the day that documenta 8 was inaugurated in 1987, five years later. The last oak was planted by Beuys’s son after the artist’s death the previous year. For further information on this work and citizen participation, see, DOMINGO SANTOS, Juan, “7000 robles”, in DOMINGO SANTOS, Juan, “La tradición innovada. Escritos sobre regresión y modernidad, Colección Arquitectura. Thesis, No. 38, Fundación Arquitectura, Barcelona, 2013, pp. 293-307.

10. The book is an essay on contiguity in different artistic fields and especially in architecture. This pages discuss contiguity.
as an instrument to overcome constructive rationality that is based on strict functional logic that results from the consideration of the material and not from experience or its relationship with other questions beyond the field of architecture. TRILLO DE LEYVA, J.L., Argumentos sobre la contigüidad en la arquitectura, Universidad de Sevilla, Seville, 2001.

11. AA.VV., El Manifiesto de la Alhambra, Revista nacional de Arquitectura, Madrid, 1953.


13. JUEZ JUARROS, Francisco, Símbolos de poder en la arquitectura de Al-Ándalus, Universidad Complutense de Madrid, Faculty of Geography and History, Madrid, 1999 (PhD thesis).

14. As is the case with significant iconic architectures in the modern period, the pavilion built by Mies van der Rohe for the Barcelona International Exposition (1929), or the Fallingwater house by Frank Lloyd Wright where water forms part of a backdrop for the architecture, or in Luis Barragán’s creations in the scenic area of las Arboledas (1961), and in some of his domestic spaces (Casa Gálvez, 1954, and Casa Gilarde, 1976). There, the union of light with water gives a theatrical effect to the landscape and the interior spaces which change their appearance with the seasons throughout the year, as is the case with the religious projects executed by Tadao Ando: Church on the Water (1988) and the Water Temple (1991); becoming sensory experiences in a spiritual connection between architecture and nature.


17. The idea of a house “bathed” in rainwater was already present in an installation executed by the architect in the year that he began designing the house. The installation is a conceptual piece consisting of a small model of a house with gabled roof in copper, and a coil system that lets the water continuously slide off the roof by the walls, inundating all the surfaces of the house, the floor and its surroundings. The result is a particular vision of an object moistened by the light artificial rain that establishes a continual link between the form of channelling the water, the walls that it flows on and the horizontal surface of the floor on which it falls.


21. In 1936, the author Nikos Kazantzákí wrote The Rock Garden on the Greek island of Aegina, where he used to spend the summer, similar to his friend Pikionis. The book contains the author’s experiences of his trip to Japan and China with descriptions of the Eastern cultures and their relationship to nature. It is possible that the book had an influence on Pikionis’s architecture and the way in which he used stone as a wider dimension than the solely technical one.


23. The work was executed by the architect Juan Domingo Santos in collaboration with the members of his study, the municipal gardener, the mayor and the inhabitants of Lanjarón, within a series of actions aimed at recovering the landscape bordering the River Lanjarón that descends from the Sierra Nevada. The project, which was titled Museo del Agua (Museum of Water) began with the search for a place favouring the presence of water under natural conditions.

Images


04. Joseph Beuys, 7000 Oaks, Kassel (Germany), 1982. The photo shows the artist planting the first oak next to a basalt stone accompanied by a group of citizens.

05. Archaeological park of Tipón, The Temple of Water, Cuzco (Peru) 15th century. View of a water channel from the mountains and the distribution layout in terraces (Author photograph).


09. Layout plan of the stone paths laid by Dimitri Pikionis for the archaeological area around the Acropolis of Athens, 1964-1967.

10. Museo del Agua (Museum of Water), Lanjarón (Granada), 2009. Architect: Juan Domingo Santos. View of the square with orange trees, the entry pavilion and the interior filled with water. (Left photo: author. Centre and right photo: Fernando Alda).