

# THE BIO-ARCHITECTURE WORKSHOPS OF INBAR SICILY: LIGHT, EARTH, WATER,...

## DECEMBER THE 18TH-19TH, 2015

Talking about sustainability for a technologist is a daily task, for no transformation and education activities can avoid taking into account a growing society's need of change, as well as the environmental context's safeguard. The modification process will then enter into symbiosis with the site, without altering the available resources' balance. In order to activate empathy between man/designer and nature, a number of procedures for knowing and testing should be applied, which will respect urban places, landscape and territory. Knowledge, history and materiality are the needed ingredients for starting these processes, through the assessment systems for the sustainable issues within the projects at both urban and land scale.

Due to a number of reasons, besides the designers' responsibility, the sustainable actions are still a few: *"today sustainable development, environment and durable life quality are often discussed. I think that for our generation these have been failed, mainly for practicing designers, which have in their culture, in their hearts, bones and eyes, the ability of respecting territory, past and environment.*

*Employing parameters, quantitative and qualitative values for verifying an intervention's sustainability is downgrading. The goals are still vague, ambiguous and fleeing, as indexes and vectors of complexity and sustainability are still not very well balanced. Being illusory the idea of processing a frame of rules for constructing and transforming, such a design procedure seems to guarantee, on one hand, a better life quality, while on the other hand it looks as a defeat, which leads inexorably the man towards genetically modified, artificial and virtual realities"*<sup>1</sup>.

Paolo Portoghesi declares with delusion that today *"the architecture seems to have lost [...] its traditional task of tool for control and provision of a healthy environment and instead has gained on field a number of demerits, for the produced environmental faults"*<sup>2</sup>.

Knowing the past is necessary for the future, it is the guarantee for living in symbiosis with nature, even if this is against the speed of the evolution and the transformation of our age, and it will sound strange for new millennium computer programmers or architects. The memory needs this knowledge for correctly and harmonically operating, mainly by architects conscious of the natural issue within the material culture application.

Adriano the emperor stated, with the words of the writer Marguerite Yourcenar: *"building means collaborating with the earth, printing man's sign on landscape which will remain modified forever"*<sup>3</sup>. The Sicily then becomes context and test field in which I take part as both person and scholar in the search of sustainable futures, so as to provide

sustainable contributions to transformation and education processes mainly as far as design and technological culture are concerned.

My role within the scientific community as university teacher requires to participate to non-profit associations, such as the Inbar (Bio-Architecture National Institution), which pursuit the aforesaid goals.

Then, while describing the potentials of this region, as a traveller or a modern Goethe, we can compare Sicily with the harmonic team of the four elements of the traditional cosmology, *earth, air, fire and water*, defined during the 4<sup>th</sup> century BC. (Fig. 1)

In fact, the Sicily, as island, is mainly *earth*, surrounded, embraced and enriched by the water, and also belongs to fire/light and to air, for the strong wind and its volcanoes.

The Inbar provincial section of Trapani, in force since 2012, was born thanks to architect Salvatore Cusumano, its President. The national association has been active in Italy for more than 20 years, and had always played a fundamental role in awareness, information and education of actors operating for healthy inhabiting, land requalification, and ecological re-conversion of the building sector.

Since its birth the Inbar has activated a number of events at county and national scale, aimed at pursuing the association's mission. The city of Trapani section, conscious of the fact that any place has its peculiarities and its history, had developed education and studies programmes so as to share the culture of bio-architecture, by proposing four workshops and some seminars. The president Cusumano underlines "that the Bio workshops and the Bio-seminars are chances in which thinking is enriched by action, where there are a lot of ideas, an opportunity for facing, sharing abilities and expertise, and, as in an alchemical studio, can contribute to look for searching such solutions which will be more and more sensitive towards the correct use of resources. The Bio-seminars are also living interior experience so as to provide evolution substance to present architects *pro-ject*, which is meant as a look towards the unknown, leaving away any predetermined sureness and truth. It is as throwing own ideas in a possible fertile field, where any seed can generate new fruits and create relationship nets between subjects who enriched each others' from the others' experiences and ideas, in a creative and organic comparison. As in the archery, more you stretch the rope and farther the arrow will go, so in the *pro-ject* practice, more the roots will sink in the past and greater is the knowledge-expertise, farther it is possible to go".

In particular, the first workshop, entitled *"Light. Let us collect the sun"* was held on December the 12<sup>th</sup>, 2012 at Alcamo (Fig.2), the second, entitled



Fig. 1 - The traditional Cosmologies: fire, earth, air and water (shoot by G. De Giovanni)



Fig. 2 - Poster 1st Bio-workshop. "Light. Let us collect the sun", October the 12<sup>th</sup>, 2012

*"Earth. Architecture, materials and techniques, from tradition to innovation"*, was held on march the 7<sup>th</sup>, 2014 at Alcamo (Fig. 3), the third, named *"Water. Bio-architecture and land within the new climatic and energy scenarios"*, will be held, still at Alcamo, on December the 18<sup>th</sup> 2015. (Fig. 4). The latter wishes to underline how the water can no longer be considered as an unlimited and renewable resource (everybody knows that fresh water represent only 3% of all the whole terrestrial one), by facing with the participation of illustrious scholars and designers (Fig. 5) the subjects of the ancient link between Architecture and Water, mainly for the Mediterranean region (just mentioning the aqueducts, the thermal baths, the Roman tanks or the closed vegetable gardens, the fountains and the hydraulic

Venerdì 07 Marzo  
2° Biolaboratorio  
Architetture, materiali e tecniche, dalla tradizione all'innovazione.  
terra

9,00-13,00 | 15,00-18,30 Centro congressi Marconi - Alcamo  
7-8-9 Marzo | esposizione materiali per l'edilizia sostenibile



Fig. 3 - Poster 2nd Bio-workshop "Earth. Architecture, materials and techniques, from tradition to innovation", March the 7th, 2014

18-19 Dicembre  
3° Biolaboratorio  
ACQUA, BIOARCHITETTURA E TERRITORIO NEI NUOVI SCENARI CLIMATICI ED ENERGETICI  
acqua

Venerdì 18 Dicembre 2015 - dalle 8,30 alle 18,30  
Sabato 19 Dicembre 2015 - dalle 8,30 alle 13,30  
Centro Congressi Marconi - Alcamo



Fig. 4 - Poster 3rd Bio-workshop "Water. Bio-architecture and land within the new climatic and energy scenarios", December the 18th- 19th, 2015

architectures and engineers of the Arabic tradition). Today the Bio-architecture, mainly in the dry and desert countries, occurs as an indispensable discipline for investigating and proposing solutions apt to harvesting rainy water, to treating and recycling the exhausted ones, to reducing the water consumption and to exploit this precious good for natural conditioning. In 2016 the Bio-workshops will be completed by the fourth event which will face the subjects and the reflection and education moments about the last of the cosmogonies: the Air.

From the foundation date of the Trapani section, the Bio-seminars joined the Bio-workshops; the

first "Planning the sustainability. Innovative paths for design", held on January the 2013 at Castellammare del Golfo; the second, "Angel's house. Blow and design", at Alcamo on February the 22nd, 2013; the third: "Urban regeneration and city, from the building squatting till the eco-sustainable planning", at Alcamo on November the 7th, 2014; the fourth, entitled "Centre. From urban quality to life quality" held at Alcamo on February the 7th, 2015; the fifth bio-meeting, entitled "Harmony. Towards a re-design of city between landscape and economics", held on May the 18th, 2015 in the Palazzo dei Normanni in Palermo with the coordination of the Sicily Region. The latter wanted to create a confrontation moment with the main Italian policy, economy, culture and planning promoters so as to search concrete answers to citizens' need of comfort and sustainable development, while not neglecting the beauty and harmony, which are the unique truthful concepts which could still save man from the melancholy of the contexts where he lives.

**Giuseppe De Giovanni**  
Full Professor in "Technology of Architecture",  
University of Palermo – Honorary President of the  
Scientific Committee INBAR Trapani Section.

NOTES

1. G. De Giovanni, *Terre d'occidente*, in Progetto Restauro n. 31, il Prato, Saonara (PD) 2004, p. 46.
2. P. Portoghesi, *Natura e architettura*, Fabbri editori, Milano 1993, p. 27.
3. M. Youcenar, *Memorie di Adriano*, Einaudi, Torino 1988, p. 120-121.

Programma venerdì 18 ore 8:30-18:30

- 8:30 Accreditamento partecipanti
- 9:00 **Saluti delle Autorità e dei Presidenti**  
Introduce Arch. Salvatore Cusumano - Presidente INBAR sez. Trapani  
Arch. Giovanni Sasso - Presidente INBAR  
Arch. Anna Carulli - Segretario Nazionale INBAR  
Prof. Arch. Andrea Sciascia - Direttore Dip. di Architettura Università di Palermo  
Arch. Alberto Ditta - Presidente Ordine Architetti di Trapani.  
Ing. Andrea Giannitrapani - Presidente Ordine Ingegneri di Trapani.  
Dott. Giuseppe Pellegrino - Presidente Ordine Agronomi di Trapani.
- 9:40 **Lo stupore dell'Acqua**  
Melo Minnella - Fotoreporter.
- 10:00 **Apertura dei lavori**  
Prof. Arch. Giuseppe De Giovanni - Professore Università di Palermo - Chairman, Presidente Onorario Comitato Scientifico - INBAR Trapani.
- 10:10 **Nuovi paesaggi e funzioni d'acqua**  
Arch. Giovanni Sasso - Presidente Nazionale INBAR.
- 10:40 **Le acque termali - minerali : la tutela delle componenti tecniche e degli usi consolidati per un recupero sostenibile del territorio - il caso studio del Comune di Castellammare di Stabia**  
Arch. Nunzia Coppola - Esperto- INBAR Sezione di Napoli.
- 11:30 **Scenari climatici ed energetici dopo la Conferenza di Parigi**  
Gianni Silvestrini - Presidente Green Building Council, Italia  
Coordinatore FREE - Direttore Scientifico Kyoto Club e QualiEnergia.
- 12:00 **Qualità dell'acqua**  
Prof. Gaspare Viviani - ICAR/03 Università di Palermo.
- 12:30 **Interni da scoprire. Il tema del ponte abitato**  
Prof. Arch. Santo Giunta - Università di Palermo.
- 13:00 **"L'acqua come..."**  
Prof. Arch. Walter Angelico - Università di Palermo.
- 13:30 Pausa Pranzo

Laboratorio a regola d'arte

- 15:00 Accreditamento
- 15:30 **Il sistema tetto come elemento impermeabilizzante.**  
Dott. Mauro Borgia - Ondulit Italiana.
- 16:00 **Acqua - sughero - casa : innovare con la natura**  
Arch. Raimondo Burgio - Tecnico TecnoSugheri.



- 16:30 **Acqua, materiale del progetto**  
Prof. Arch. Marcello Panzarella - Università di Palermo.
- 17:00 **RiCicli dell'acqua: progettare, costruire, abitare. Casi studio**  
Arch. Ph.D Vito Corte - Libero Professionista.
- 17:30 **Il risparmio energetico:dalla caldaia alle nuove tecnologie**  
Ing. Vincenzo De Lucia - A.M. Elco Italia.
- 18:30 Chiusura dei lavori

Programma Sabato 19 ore 8:30-13:30

- 8:30 Accreditamento partecipanti
- 9:00 **Apertura dei lavori**  
Prof. Arch. Giuseppe De Giovanni - Professore Università di Palermo - Chairman, Presidente Onorario Comitato Scientifico - INBAR Trapani.
- 9:10 **Warka Water**  
Arch. Arturo Vittori - Architecture and Vision.
- 10:00 **L'elemento acqua nell'architettura arabo islamica**  
Arch. Muhammad Al Daire - Libero Professionista - Giordania.
- 10:30 **Il servizio idrico tra attività industriale e funzione sociale**  
Ing. Damiano Galbo Direzione Hydro Engineering s.s.
- 11:00 **Genealogia. Architettura e Rivoluzione**  
Prof. Arch. Gianluca Peluffo - IULM Milano - Studio 5+1.
- 11:30 **Sublimis - Video proiezione**  
Giuseppe La Spada - Artista digitale.

Laboratorio a regola d'arte

- 12:00 **Fitodepurazione casi pratici**  
Arch. Vincenza Martino - Responsabile Tecnico INTRAM Impresa Italia s.r.l.
- 12:30 **Principi di Geobiologia**  
Arch. Anna Carulli - Segretario Nazionale - Esperto INBAR.
- 13:00 **Dibattito e chiusura dei Lavori**

Foto: Fallingwater, di Frank Lloyd Wright - in alto, il progetto Warka Water Arch. Arturo Vittori

Fig. 5 - Programme of the 3rd Bio-workshop "Water. Bio-architecture and land within the new climatic and energy scenarios"