

## A PIONEER BIO-CLIMATIC ARCHITECTURE BASED ON TRADITIONAL KNOWLEDGE IN MOROCCO

In Morocco the architect [Salima Naji](#) is realizing through its work a campaign to promote a culture of bio-climatic constructions valuing the traditional architecture and adapting it for contemporary needs.

In occasion of the [World Conference in Climate Change COP22](#) organized in 2016 by the United Nations in Marrakech, the Royal Academy of Morocco promoted the film [Bio-constructions in Southern Morocco](#),

produced by Mehdi Benssid and Karim Belbachir with the Salima Naji technical advice. The film values the rescue of traditional architecture to face the challenges of the future.

In particular, the film emphasizes that to face the effects generated by climate change, in addition to ensuring comfort for the users, the buildings will have to take into consideration aspects that relate to their environmental impact: the resources used, with priority for renewable and recyclable materials, the energy cost of the construction process, the emission of greenhouse gases, the duration of the works, the waste by-products generated by the construction processes and the possibility of their reuse.

This global challenge becomes even more urgent in arid areas of the world characterized by high temperatures. Also in those areas the standard building methods based on the use of concrete have substituted local materials, traditional techniques and architectural designs based on ancestral know-how and local culture, causing big problems to the population wellbeing and to the environmental sustainability.

In this context the architect Salima Naji carries out her work in Morocco with the collaboration of national, local and international institutions and organizations, to spread out the new culture of a bio-climatic architecture rescuing ancestral building methods and the knowledge still owned by local communities. The principles of this modality of bio-climatic architecture have been applied in concrete projects of rehabilitation of historical buildings made all around the country.

One of these project is the [restructuring of collective granaries](#), fortified constructions where to store crops. The final stage of the granaries restoration is presented in the film shown at the COP22 Conference. The granaries located in Amatoudi are also documented into the film [Maroc vu du ciel](#) realized by Yann Arthus Bertrand.

Of particular interest is the orientation of Salima Naji in applying her innovative eco-construction principles to works of social interest, to offer the population public spaces of a better quality: health services,





maternity homes, cultural centres, libraries, schools. In all the works the technologies and the traditional architectural designs allowing to substitute the mechanical ventilation or air conditioning are rescued, providing the users with a higher comfort in using the services.

The works carried out by Salima Naji in different places of Morocco present the following common characteristics:

- The use of local materials: earth, *adobe* bricks, stone, lime, wood, palm stems or other fibres to be used in eco-constructions that need the traditional artisan's knowledge. The use of cement is reduced to the minimum required by national laws for public buildings.
- The rescue of the traditional architectural forms for a bio-climatic design that allows to generate healthy and pleasant spaces reducing energy consumption to a minimum: natural ventilation, passive cooling, recovery of free heat inputs and thermal inertia.
- The works are realized with local workers and artisans who bring their knowledge of the traditional architecture of the place. The perspective is to promote new local productive chains for ecological constructions that can form a new generation of artisans and create quality jobs for young people.

Recognized by prestigious national and international awards in topics of sustainable architecture, the architect is inspired by the thought and work of the great [Egyptian architect Hassan Fathy](#) valuing the knowledge of local artisans to create a modern architecture that meets the needs of today and face the challenges of sustainability facing climate change.

The architect Salima Naji is among the signatories of the [Manifesto for a happy frugality: Architecture and development of urban and rural territories](#), seeing in this initiative an instrument to generalize the practices underway in Morocco to build healthy, pleasant and environmentally sustainable buildings, rescuing the traditional knowledge of the territories.

On her web page it is possible to find very interesting documents presenting the projects implemented, the technologies and the working methods adopted.

### To know more

[Salima Naji web page](#)

[Salima Naji in Facebook](#)

[Collective granaries project](#)

[Maternity House in Ameditions.net web page](#)

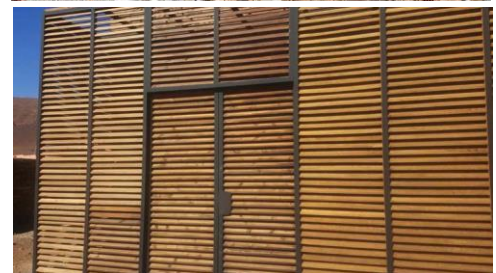
[World Conference in Climate Change COP22 in Wikipedia](#)

[Film Eco-construction-dans-le-sud-du-Maroc in bioclimaroc.ma](#)

[Film Maroc vu du ciel in Facebook](#)

[Article in culturebox.francetvinfo.fr](#)

[Article in blog.convergence.link](#)



[Article in lepoint.fr sitio web](http://lepoint.fr)

[Article in arabnews.com sitio web](http://arabnews.com)

<https://www.frugalite.org/fr/le-manifeste.html>

