

École nationale supérieure d'architecture Montpellier | La Réunion

Dear Sir or Madam,

As part of its development, the Reunion branch of the Higher National School of Architecture of Montpellier (ENSAM), under my responsibility, wishes to structure and increase its research capacities in architecture, thus extending its syllabus leading up to the French State Diploma in Architecture.

To this aim, the Reunion brach of ENSAM is to hold an international conference in Reunion Island on 30th and 31st October 2019. The multidisciplinary conference will treat issues linked to architectural, urban and landscape projects in tropical environments in general, but more particularly in the regions around and within the great Indian Ocean basin.

The conference will analyse and objectivise architectural and urban practices in tropical regions in a context where the ecological, environmental and social challenges have been exacerbated through climate change, natural hazards etc. The event will be widely open to architects, town planners, engineers and physicists working in construction, as well as geographers, historians, sociologists, anthropologists and ecologists, who are all invited to share their knowledge and experiences focused around several topics that have been defined. The list is not exhaustive, however, and any proposal focused on other fields, but which is in keeping with the spirit of the call for papers, will be taken into consideration.

You will find enclosed the call for papers for the conference and we hope that the project will retain your interest.

If you are in charge of a research institute and/or laboratory, certain members of your structure might be interested in attending the conference, we should be grateful if you could circulate the attached call for papers among the members of your staff.

The scientific committee set up for the conference will be honoured to examine your proposal for a paper, which must be submitted by 30th April 2019.

We are entirely available to give any further information you may require and hope to be able to welcome you in October.

Yours faithfully,

Michel Watin,

University Professor Conference commissioner Pierre ROSIER,

Director, School of Architecture of Reunion, branch of ENSAM (Montpellier)

Le Directeur, par délégation, le Directeur de l'antegne réuniophaise de l'ENSAM

Pierre ROSIER

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École nationale supérieure d'architecture Montpellier | La Réunion

# Higher National School of Architecture of Montpellier Reunion Section

#### **International Conference**

"Architecture in tropical environments: constructing the landscape.

Between practice and research"

30th and 31st October 2019, Reunion Island

## **CALL FOR ABSTRACT**

As part of its evolution, the Reunion branch of the Higher National School of Architecture of Montpellier (ENSAM) has set itself the objective of developing original research around the general topic of 'Architecture, towns and territories in tropical environments', with the aim of creating in Reunion a centre of expertise for French architectural design in the Indian Ocean.

In the context of this perspective, the Reunion section of ENSAM is to hold an international conference on 30th and 31st October 2019. Through exchange of experiences and presentation of research projects, the conference will focus on the specific issues of architectural, planning and landscape projects in the inter-tropical zone.

The purpose of the conference will be **to develop the expertise of local players in the field of planning and architectural design** in Reunion, where architects and planners, working in a small island environment, have to consider construction and urban development in a tropical context, whether on the coasts or at attitudes, both urban and rural, in a rapidly developing, multicultural and multi-origin society, where members of the planet's 'great populations' cohabit.

The conference also aims to take stock of the know-how and practices of professionals dealing with issues linked to architecture, town planning, landscaping and tropical environments, by focusing on ecological, socio-cultural and technological concerns, in a multidisciplinary perspective, with the purpose of defining research topics that could, in the near future, lead to the development of research in Reunion around sensitive questions linked to sustainable construction and climate change.

Another aim will be to achieve a more efficient analysis and a clearer definition of the meaning of 'tropicality' in the context of professional practice, focusing on ways of adapting conception and application, in a context where designers and project sponsors are faced with conflicting tensions which are exacerbated in tropical regions, tensions between social emergency and the injunction to work in a sustainable manner, between consideration of global environmental changes and local cultural identities, between people's need for roots and the fast disruption of time and space, between immediate needs and the necessity to take into consideration the complexity of socio-ecological systems surrounding projects, while contributing, at the same time, to their implementation.

These issues and the tensions linked to 'climate upheaval' do not concern the tropical environment alone, but are often particularly exacerbated in these regions, compared to elsewhere. Everywhere, global changes (economic, cultural, climatic, environmental, etc.) have projected these concerns to the heart of questions determining the use of space. Throughout the world, architects, planners and landscape architects are urged to design with the planet in mind, rather then considering simply the site or the local territory; everywhere, and even more so since environmental questions started to be raised within the context of urban planning and development, designers and project sponsors find themselves, to a greater or lesser extent, at the heart of and having to manage the tensions and potential contradictions between their expectations and external injunctions.

In the inter-tropical zone, ecological, environmental and social issues have, however, taken on a new dimension: rising sea levels, deforestation, pollution, loss of biodiversity, dwindling resources, insufficient drinking water etc., all of which are having a huge impact on ecosystems and economic structures; social inequality, poverty, but also cultural diversity and its resulting rich environment, have created a context which is having an immediate impact on the work of designers.

Architects, town and country planners and developers, professionals producing 'landscape' as a 'constructed unit', where the complexity of the relationship between nature and the society, between the biophysical and the cultural environment can be seen, must thus respond to ecological imperatives, as well as to technical constraints connected to socio-cultural practices specific to the societies concerned.

The geographical field covered by the conference will be **tropical environments in general**, **but more particularly the Indian Ocean**, a vast basin of over 75,000,000 km², most of which is situated in the inter-tropical zone. The Indian Ocean space includes small island territories, such as Reunion Island, as well as vast coastal nations, from South Africa to Australia, as well as Mozambique and India. These countries are the living environment of a huge percentage of the world's population, who today find themselves mainly living in urban environments and, from the architectural and planning perspective, face common issues. Planning these territories and developing towns and buildings, in the context of a more or less hot and humid tropical climate and confronted with natural hazards, all necessitate specific knowledge and know-how for architects and planners, who need to design and produce buildings and neighbourhoods that will consume less energy, respect the environment, and offer a high-quality living context in these very specific climate conditions, where it is necessary to confront all the questions related to global changes (bioclimatic, socio-economic, demographic etc.), as well as those linked to identity and local practices.

Contributions, in French or English, will specifically focus on the regions that make up the vast Indian Ocean, but will not be limited to these and works and analyses around other tropical environments will also be welcome.

The conference will emphasise both comparison of experiences, analysis of practices and exploration of methods and tools used by contracting authorities and project managers when analysing and carrying out their role, at the crossroads between ecological and socio-cultural issues in the inter-tropical context.

'Joint' communications, organised as **a sharing of experiences** between the practices of project managers and contracting authorities, as well as **scientific analysis**, will be welcome. Participants are invited to share their experiences and initiatives, through presentations that can associate project managers, contracting authorities and other speakers (notably scientists and technicians). Accounts of experiences, such as deconstruction of projects, organised around a dialogue between the practitioner and the designer, will be particularly appreciated.

Architects, town planners, construction engineers and physicists, geographers, historians, sociologists and anthropologists, are all invited to share their knowledge and experiences around several topics which have been defined for the conference.

The list below, of particular interest for practitioners working in architecture, town planning and landscape in Reunion, is not exhaustive and all proposals focusing on other concerns, but which respect the spirit of this appeal for papers, can be taken into consideration.

# **CONFERENCE TOPICS**

### <u>Topic 1. Hazard management in the tropical environment</u>

The tropical environment, as well as physical factors, contribute to the high vulnerability of southern countries in the face of natural hazards. The notion of risk is a social construct developed by a society when faced with the manifestation of a physical process or climate hazard. This collective construction is situated in a geographical and socio-cultural context: indeed, for certain populations, the same event may be perceived as not presenting a high degree of danger, but considered to be extremely dangerous by another group. The attitude to risk is linked to the history of the society, their past relationship with disasters and their collective memory (IRD 2004)¹. Consequently, provisions concerning design of buildings, towns and territory are not simply limited to technical issues, but also necessitate an analysis of the 'risk culture' within a specific society. This raises the question of expertise and relationships between social players, experts and decision-makers.

- What provisions have been made to make it possible to face up to climatic hazards specific to tropical environments?
- How is the issue of integrating hazards in the various regions of the inter-tropical zone treated?
   What are the current practices in this field?
- How are disasters managed? To what extent do they present the opportunity to develop techniques relating to the architectural, urban and landscape project?

# <u>Topic 2. Sustainable development, protection of local resources, preservation of the environment and development of local economies.</u>

Sustainable development fundamentally concerns the relationship between the environment and societies. Its field of application covers both the environment as a vector of source and resource, in industrialised or non-industrialised societies, as well as more specific issues such as climate change and biodiversity or territorial ecology (Zaccai et al 2011)<sup>2</sup>.

Sustainable architecture in tropical climates is a field open to study and presents an extraordinary challenge for architects, who are encouraged to abandon outdated and obsolete approaches imitating the architecture of developed countries.

- As producers of 'landscape' seen as a 'constructed whole', how can architects, town planners and developers, in their construction practices, contribute to creating a viable, livable and sustainable balance between a more efficient and fairer economy, social equity and environmental protection, while integrating the principle of governance and democracy in a multidisciplinary manner (Verdura, 2015)<sup>3</sup>?
- How to adapt design of buildings, public spaces and towns to environmental changes?
- In this context, what role can a landscaping approach play in the project process?
- Do there exist ecological models of housing adapted to tropical environments?
- How to apply an urban ecology that involves creating links between environmental resources, constructed and natural spaces, urban organisations and human activity?

# **Topic 3. Architecture and ways of living in tropical environments**

The notion of habitat does not concern solely housing, but also includes a social organisation which sees human shelter in its wider context, functioning according to collective rules which consider individuals within the society. The whole social system is thus included, involving an understanding of phenomena of habitat and housing, not only their material manifestations, but also in the diverse practices which reflect the way in which human groups make use of the forms and organisation of this space, appropriating them or not, adapting to them or not, according to their activities and social relations as a whole (Segaud, Bonvalet, Brun, 1998)<sup>4</sup>. The field covered by these practices considers habitat as a social phenomenon in its totality that can be apprehended from different disciplinary perspectives and can involve different topics, from the very technical to the symbolic.

While there exist a large number of works and references concerning technical bioclimatic issues applied to architecture in the tropical environment, it must be noted that the question of ways of living has not been extensively developed.

- Do there exists spatial organisation specific to tropical habitats?
- Is it possible to define specific uses for habitat in tropical environments, ways of living unique to tropical regions?

When the Modernist dogma flooded the planet, means of expression of cultural traditions were more or less ignored, leading to rampant internationalisation, the effects of which are highly questionable in tropical zones. Traditional architectural forms disappeared overnight or were given new forms, without there being any true analysis of the foundation of these changes or the necessity for conservation (Tallet, Yemmafouo, Tchekote, 2015)<sup>5</sup>.

Certain architects, however, managed to integrate cultural aspects and local climatic conditions by adapting coherent forms, materials, concepts and cultural traditions, while at the same time remaining modern. They created a form of architecture reflecting regional influences, while contributing contemporary solutions (TAI, 2016).

Within the context of this permanent dialogue between tradition and modernity, what impact
has this globalisation had on the habitat and social cultural practices of tropical societies? In the
field of habitat, what type of modernity is actually concerned?

## Topic 4. Bioclimatic architecture local and/or bio-sourced materials

Bioclimatic architecture is defined as an architectural discipline that capitalizes on the conditions of the site and its environment in order to produce an architecture aimed at achieving the highest possible comfort as naturally as possible through the use of architectural techniques, renewable energy sources and maximum reduction of mechanised technical means and sources of energy external to the site.

What are the current provisions as regards bioclimatic architecture in tropical environments?

Changes in the socio-cultural context, notably following colonisation, urbanisation and the monetisation of the relationship between individuals, are responsible for the transformations that have affected the construction sector. While traditional societies have always built using 'local materials', on a basis of total self-sufficiency, in modern society Western techniques are applied in construction.

Bio-sourced local materials, for a long time scorned in favour of industrially-produced materials, appear better adapted to hot climates, offer thermal comfort, are more affordable, respect the environment and are often aesthetic and modern. But a uniquely rational promotion of 'local materials' is doomed to failure (Hig, Coulabaly, 2005)<sup>6</sup>, since their application comes up against the reluctance of the populations, often having negative representations of these materials.

However, 'local materials', applied using appropriate techniques, can be a source of aesthetically pleasing architecture, while contributing to the struggle against poverty through the creation of employment and the enhancement of natural resources (Wyss, 2005)<sup>7</sup>.

- How to combine bioclimatic design and use of local materials, while contributing to the preservation of the environment and the development of the local economy?
- How to and why promote the use of materials resulting from local production (plants, earth, stone etc.) in the construction of buildings?

### Topic 5. What approaches to project processes in the context of global change?

The emerging of concern for environmental quality at the heart of planning issues has meant that project managers and contracting authorities are confronted with the necessity to favour energy saving, rethink their relationship with the very materials used for construction, as well as the relation between buildings and their surrounding environment. On several levels, this has led to the need to consider the situation of buildings and infrastructures within ecological and social systems that are closely interwoven and the transformation of which it is difficult to predict. Thus, there is now the necessity to integrate the practice of *management* into projects, considered not only from the perspective of upkeep or maintenance of a construction, but as the process of modifying and continuously adapting an initial proposal, through a consideration of its impacts on the socioecological whole and, more generally, of their dynamics. If the project integrates the dimension of sustainability, it will thus no longer appear to be conceived as a creation produced at one specific moment ('t'), but rather as the beginning of a process having the aim of being prolonged in time, in order to adapt to the transformations of environments and social modes.

This is particularly the case in the tropical zones, where these transformations often operate in an accelerated manner and where lack of certainty regarding the impact of an action and the future evolution of the context appear more relevant than elsewhere. This management aspect of a project, when it is effectively applied, is often taken on by the contracting authority, the risk being a break with the objectives set out by the initial project and loss of coherency. It is only very rarely integrated into the request transmitted to the project manager or the programme in general. In a word, its necessitates the creation of new ways of structuring the process of a project and most certainly a redefinition of the skills of the different players concerned. With this in mind, participants are invited to share their experiences and their initiatives, through discussions that will include project managers, contracting authorities and other participants (notably scientists and technicians).

## References

<sup>1</sup>David G. (s/d), 2004, Espaces tropicaux et risques. Du local au global, Col. Du CEDETE, IRD, Presses Universitaires d'Orléans

<sup>2</sup>Zaccai E., 2011, 25 ans de développement durable, et après ?, PUF

<sup>3</sup>http://www.vedura.fr/ : Principes du développement durable, 2015

<sup>4</sup>Segaud M., Bonvalet C. Brun J. (s/d), 1999, Logement et habitat, l'état des savoirs, Paris, La Découverte

<sup>5</sup>Tallet B., Yemmafouo A. Tchekoté H., Kamdem P., 2015, Repenser l'habitat sous les tropiques : le défi du logement entre crises identitaires, « modernité » et conflits territoriaux ». Revue Des Hautes Terres, n°5, vol.1-2 IRESMA Editions

<sup>6</sup>Hug P., Coulibaly C., 2005, Micro-Entrepreneurs artisans et conditions socioéconomiques de leur développement au Burkina Faso ; Entreprendre dans le secteur des matériaux locaux, à Fada N'Gourma et Pô; Synthèse thématique, DDC, BUCO Ouagadougou

<sup>7</sup>Wyss, U., 2005, La construction en « matériaux locaux ». Etat d'un secteur à potentiel multiple, Direction du Développement et de la Coopération Suisse, Ouagadougou,

Proposals for contributions, in French or English, to be submitted by <u>30th April 2019 at the</u> latest to:

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Tél: +262 262 45 71 76

- Format Word, Times New Roman, font size 12
- number of the preferred topic
- Title of the paper
- Name, position and institution of author(s)
- email address of corresponding author
- 800 words maximum
- 5 key words

Authors or organisations interested in submitting a paper are invited to submit an abstract of no more 800 words.

All proposals and abstract submissions will be reviewed by the Program Committee. Presentations will be selected to provide a program that offers a comprehensive and diverse treatment of issuers related to the conference topics.

There are 3 options for presentations which you can select

- Oral presentations will be of 30 minutes duration (20 minutes presentations and 10 minutes discussion). The abstract should outline the important points of the presentation and highlight the content to be communicated. It may outline the aims, methods, relevance, results and conclusions of the work, research, project or case study. Papers not selected for oral presentation might be given the option of poster presentation.
- Panel presentations bring together the views from a group of presenters into a discussion of innovative ideas, current topics, and relevant issues (40 minutes presentations and 30 minutes discussion)
- Poster presentations are visual displays of material to be presented and constitute an interactive and communicative medium, usually combining text and graphics information. Posters may be on any topic relevant to the conference themes. Posters will be displayed in the exhibition area and for the duration of the conference. It is expected that presenter should be available during meal breaks to discuss it with conference participants. Specific information regarding size and mounting requirements will be provided with the notice of acceptance. Poster presenters are entitled to the discounted speaker registration.

Abstract/proposals selection: 15th May 2019 Notification to authors: 22nd May 2019

Full articles/proposals due: 2nd September 2019
Peer-review comments: 13th September 2019
Final articles/proposals due: 23rd September 2019
Registration and Payment due: 15th October 2019

Speakers accepted to present will be required to register for the conference and pay

### SCIENTIFIC COMMITTEE OF THE CONFERENCE

**Etienne BERGDOLT**, Architecte des Bâtiments de France (Architrect responsible for heritage buildings), Réunion-Mayotte

**Dr Yves Michel BERNARD**, PhD, Lecturer, Higher National School of Architecture, Montpellier (ENSAM), Reunion branch

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