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Slovak University of Technology in Bratislava, Slovakia
Vienna University of Technology, Austria
Asian Institute of Technology, Thailand
Kabul Polytechnic University, Afghanistan
Herat University, Afghanistan

Current Trends in Civil Engineering and Architecture

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Urban Planning, Reconstruction and Assessment: How Architects Can Work in Post-disaster and Post-conflict Situations?

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Patrick Coulombel

President of Emergency Architects Foundation

- Graduate architect 1991
- Architect, Training UP8 Paris Belleville, UP6 Paris La Villette.
- Naval architect / Composite material specialist.
- Gemmologist, Training Gemmology National Institute Paris.
- Electrician. Graduate in electro technical, Amiens.

In 2001, during the floods in the north of France, Patrick Coulombel decided with 2 other architects to create a humanitarian NGO which aim would be to bring technical assistance and advice to the populations affected by disasters or conflicts.

Emergency Architects foundation

Emergency Architects foundation labours alongside people who have lost everything, helping them get back to a semblance of normal life. Earthquake, flood and war see our teams interceding all across the globe, providing assistance to people in need, whether victims of natural, industrial technological or human disaster. Each of us works to restore people's sense of security, **find shelter** for displaced populations and **arrange children's access to education**.

Launched in 2001, Emergency Architects is today a state-approved public-interest foundation. We credit this recognition to the work, commitment and professionalism of more than 1,200 architects and engineers, who have intervened in more than 20 countries since our establishment. Our international network is now expanding with the formation of Emergency Architects Australia in 2006 and, more recently, in Canada.

Today more than ever before, we are duty-bound to work for those women, children and men who don't have the dignity of a roof over their heads and for the millions of unschooled children. There is much to be done and we rely on your support as we strive to build a better world.

Emergency Architects Foundation has already coordinated several development programs of **first emergency aid action** (as for water supplies, temporary shelter...) and possible **rebuilding programs for schools** and it is still present in Afghanistan, Indonesia, Sri Lanka, Pakistan, Lebanon, Peru, Chad and Solomon Islands.

1. The main objectives of the Emergency Architects Foundation are:

1. to support and develop Architects' humanitarian engagement in France and worldwide and thus to contribute to the development of architecture,
2. to train Architects with skills to help populations affected by natural, technological or human disasters,
3. to encourage Architects training in France and in the World
4. to preserve and promote the architectural, historical and cultural world heritage.

The foundation undertakes 9 programs in the following countries: Afghanistan, Solomon Islands, Indonesia, Pakistan, Peru, Sri Lanka, Chad, Mauritius and Angola within emergency or development actions in favour of affected populations. The Emergency Architects Foundation is also present in Australia and in Canada through national chapters.

533 people from 19 different nationalities work for the organization in order to insure the completion of the programs. Overall, more than 1,200 architects and engineers have been involved in Emergency Architects achievements in 21 countries.

2. Fields of operation

The foundation takes place in the following operations:

- *Cartographic Evaluation Missions*, in order to allow to the architects to quickly understand the disaster and its consequences on the population, to estimate the extent of damage, to identify and define the human and logistical means to be implemented for the immediate safety of populations and their quick rehousing.
- *Safety of the populations* by the installation of safety perimeters around damaged construction which could present potential danger, survey public services and housing, organize strategies for stabilisation or evacuation of inhabitants in case of danger.
- *Missions in Refugee camps* which answer the need for a roof, but without knowledge of the surrounding environment and the individual needs of refugees, camps can often generate disastrous social and human consequences.
- Professional training to allow sensitization to the concept of risk, the development the strategic role of professionals in the areas of urbanization and construction compatible with risk management, an assistance to local populations in self-building techniques and the creation of training workshops for uptake of news technologies and techniques.

France Floods of the Somme Region (April 2001)
 AZF chimical factory explosion (September 2001)
 Floods of the Gard Region (September 2002)

Earthquake in Martinique (November 2007)

Africa

Algeria, Bourmerdès earthquake (May 2003)
Morocco, Al Hoceima earthquake (February 2004)
Chad, Refugee camps in the east of the Chad (2007)
Mauritius, slums curbing (2008)
Angola , building of a new city (2008)

Asia

Bangladesh, floods (August 2004)
Iran, Earthquake in Bam (December 2003)
Afghanistan, Training Workshop in Kabul (2004)
Indonesia, 2004 tsunami (December 2004)
Sri Lanka, 2004 tsunami (December 2004)
Thailand, Khao Lak Island (June 2004)
South Asia, 2004 tsunami (January 2005)
Pakistan, 2005 Kashmir earthquake (October 2005)
Indonesia, May 2006 Java earthquake (June 2006)

Europe

2002 European floods (August 2002)

America

Grenada Island and Haiti, Hurricane Ivan and Hurricane Jeanne (September 2004)
2007 Peru earthquake (August 2007)

Oceania

Salomon Islands, tsunami (2008)

3. Afghanistan Workshop

A training workshop has been in place for the last four years at the University of Kabul (UPK) in Afghanistan.

The objective of this programme is to support the reorganisation of the architectural profession in Afghanistan which is now confronted with the reconstruction of the country after 20 years of war, a long draught and the recent earthquakes, by helping, not only professionals, but also students to become more structured, by the creation of a place where they can exchange, share and train in Kabul.

Emergency architects have concentrated their efforts on the organisation of training for these Afghan architects to help them respond to :

- 1) the need for technical assistance by numerous small associations with humanitarian projects.
- 2) the need for professionally qualified staff by the international NGOs to help them with the reconstruction.
- 3) for the future big development programmes, that will be initiated by the Afghan government.

The main objective of this training workshop which is situated at the Polytechnic University of Kabul is the apprenticeship of new technologies, both architectural and IT, destined for the students in their 5th year (last year of studies in Afghanistan). This training course allows architects to become professional in the use of state of the art materials and software such as AUTOCAD.

Since 2003, over 240 architects Afghans have been trained in this workshop.

Today they work all over Afghanistan. The skills they learnt during their training course are recognised, both by the authorities Afghan and the international organisations present in the country, who employ these young architects.

4. The future

As Emergency Architects are involved in Afghanistan, and as they are present in a lot of countries for reconstruction and development programs, they wish to be able to take an active role on the reconstruction projects in Afghanistan.

The aim of 2009 is thus to develop the workshop and to implement real site projects employing architects who have been trained in the workshop.