

DESIS
NETWORK
Design for
Social Innovation
and Sustainability

Temporary Housing Lab.

Design-driven
innovation of post-
disaster Temporary
Housings.



POLITÉCNICA

Universidad Politécnica de Madrid
ETSIDI Madrid DESIS Lab
Spain

Félix Bendito, Pablo Bris, Daniel Martínez

Promoter(s).

Escuela Técnica
Superior de Ingeniería y
Diseño Industrial
Universidad Politécnica
de Madrid

Funder(s).

Universidad
Politécnica de Madrid

Aknowledgements.

Luis Antonio Gutiérrez Cabrero, Miguel Martínez Garrido, Joan Bruno Rodríguez Pastor, Francesca Valsecchi



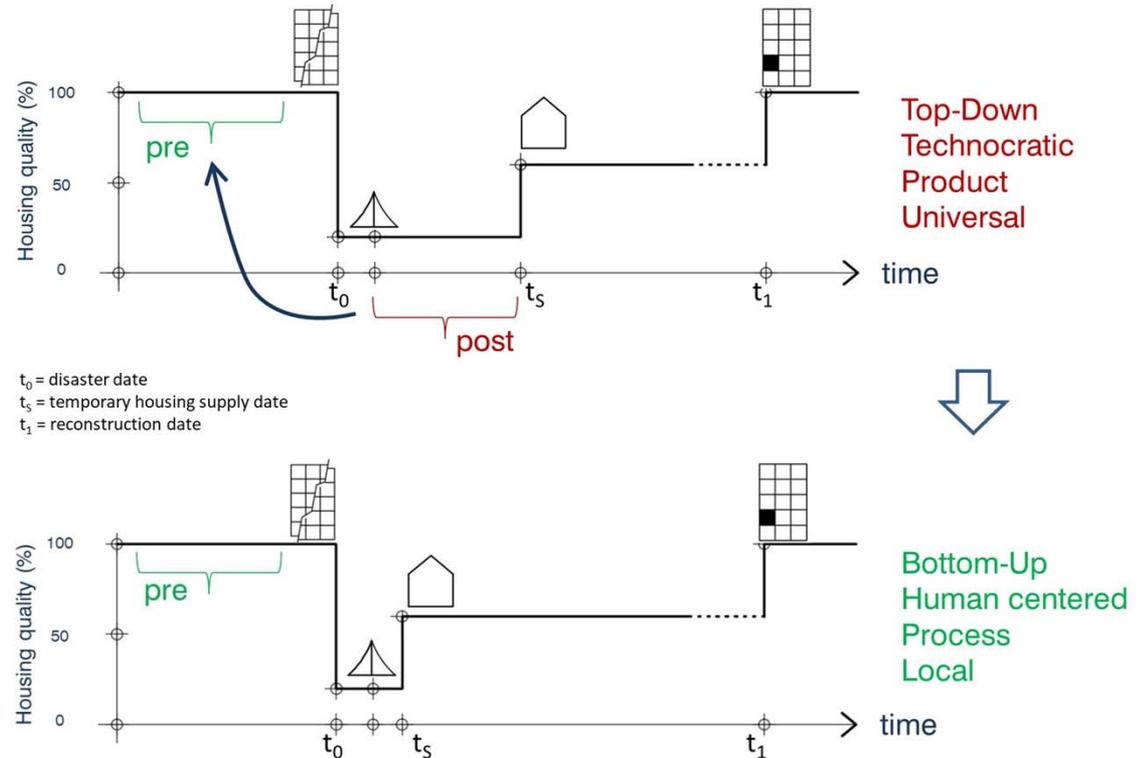
Context.

Natural disasters destroy homes and cause homeless people, who lose also their privacy, their identity and even their dignity. The provision of temporary housing (TH) allows affected people to have a private and safe place to return to their normal lives. However, the TH program is always planned in the aftermath of the disaster and, as a consequence, the solutions are inadequate.



The project.

Changing the planning of Temporary Housing from the post-disaster to the pre-disaster time could lead from the current top-down, technocratic, product-based and universal approach, to a bottom-up, human-centered, process-based and local approach.



The design process.

Workshops with students from different fields using design-driven innovation approaches:

- Tongji Design Week October 2018, Shanghai.
- ADIM Conference, June 2019, London.

DESIGN-DRIVEN INNOVATION OF POST-DISASTER DWELLING STRATEGIES

an intensive workshop @ TDW 2018

Natural disasters cause a great number of houses destroyed or seriously damaged. Subsequently, a large number of people are left homeless. When people lose their house, they are also losing their privacy, their identity, and even their dignity.

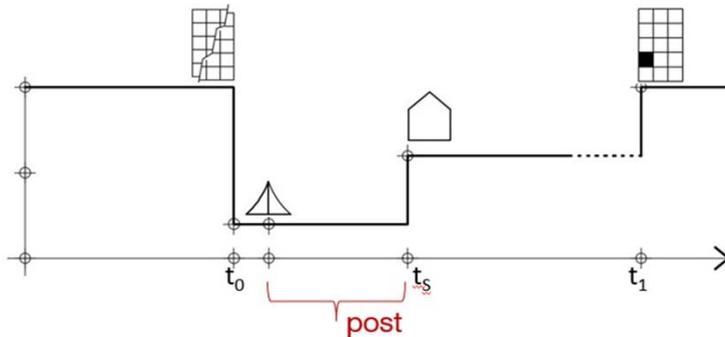
The provision of temporary housing, which allows affected people to have a private and secure place to return to their normal life is one of the most important steps in the housing reconstruction programme.

This workshop explores how might we implement a pre-disaster strategy to develop a bottom-up, human-centred approach to the design and planning of temporary housing areas.

This workshop is organised by Pablo Bris Marino, and is a collaboration between Tongji D&I and the Universidad Politécnica de Madrid (UPM).

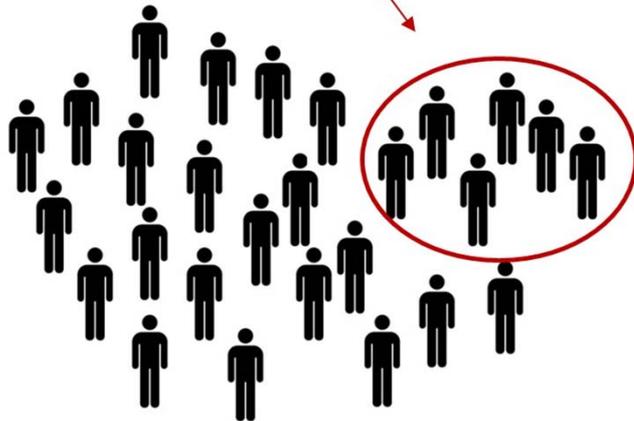
Please join us for a presentation of our proposals on **Saturday October 27th at 12.00** in this space.

Governance and Policy Making



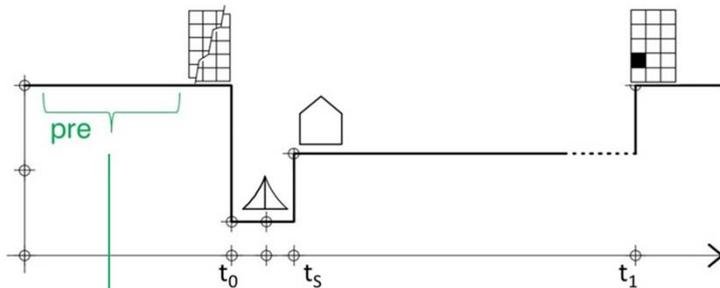
From top-down to bottom-up

Democracy is not possible in emergency

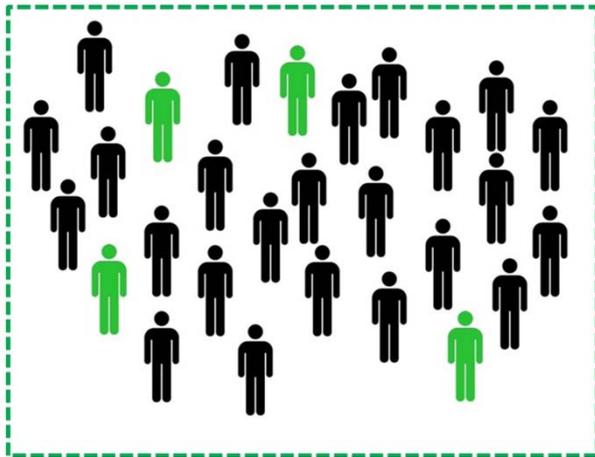


The top-down approach is currently a centralized and government-led process: a charity approach in which affected people are already known. Only technicians and politicians take part in the process.

Activism and Civic Participation



Co-design and community participation



If you move the TH planning to the pre-disaster time it's possible to involve other important stakeholders – designers, architects, urban planners, cultural associations, etc.- and to launch participatory processes.

“Recovery is neither revival in economy, nor rebuilding houses. (...)

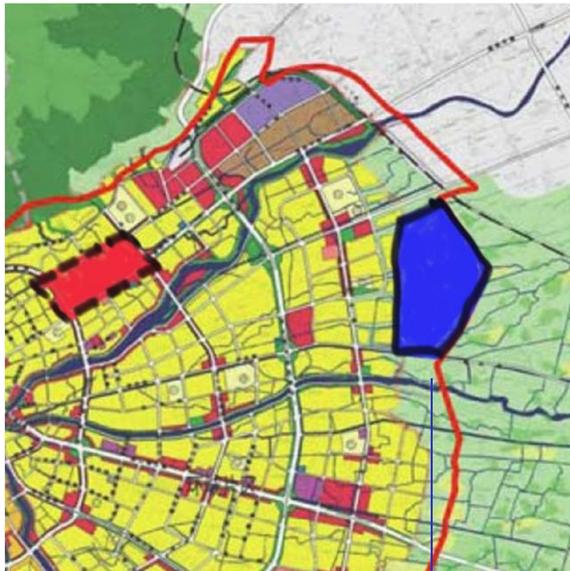
What shape the recovery processes are relations: relations between human being and nature, relations between people, relations between ourselves and those we lost, including our ancestors, relations between our lives and local cultures and histories.”

Uchiyama, 2011

relationships between people

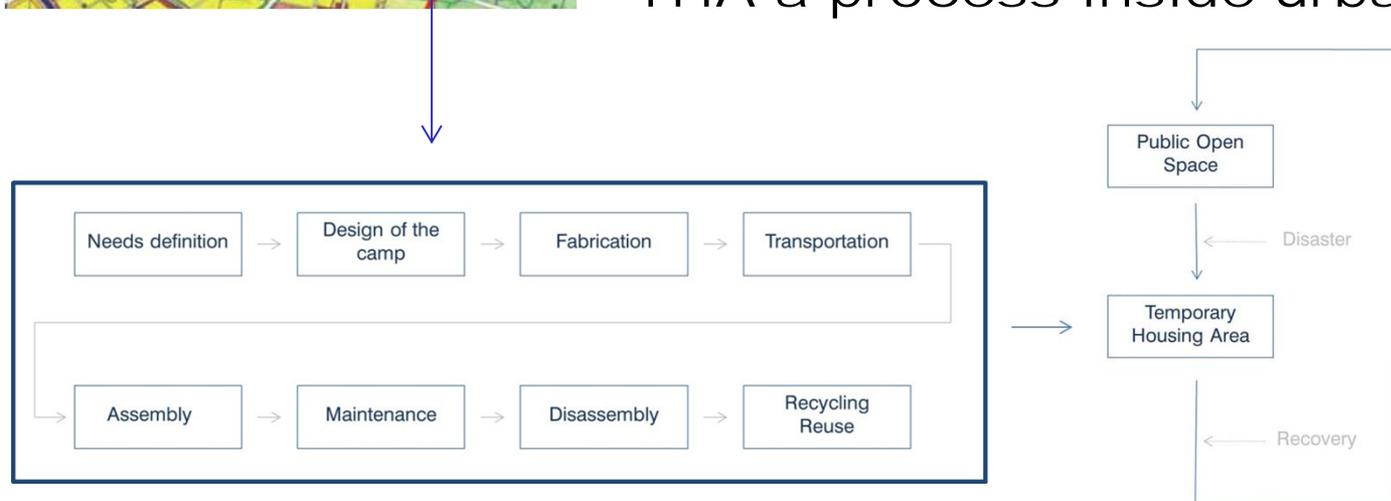
relationships between people and their environment

Is the temporary housing the AIM of the housing strategy in the recovery stage? Or, in the contrary, it's only a MEAN for recovering social cohesion -relationships between neighbors- and sense of connection –relationships between people and their environment.



Resilient cities

THA a process inside urban planning



Urban design and recovery planning should be connected in order to guarantee a resilient and sustainable city. TH area should be designed as a multifunctional and flexible space in which emergency and non-emergency goals are aligned. The temporary housing area could be seen as a “second city” inside the city.

Skill Training and Design Education



Community centered design

Multidisciplinarity

Co-design

Workshops in different institutions –some of which belonging to DESIS network- with diverse stakeholders. Students develop new strategies in the temporary housing domain by using design-driven approaches,

Storytelling and Visualisation



Tongji Design Week October 2018, Shanghai.
Workshop "Design-driven Innovation of Post-disaster Dwelling Strategies"



ADIM Conference, June 2019, London.
Workshop "Shelter after Disaster Management. New Approaches by Design Driven Innovation"

Papers:

Bris P, Bendito F. Lessons Learned from the Failed Spanish Refugee System: For the Recovery of Sustainable Public Policies. *Sustainability*. 2017; 9(8):1446.

<https://doi.org/10.3390/su9081446>

Bris P, Bendito F. Impact of Japanese Post-Disaster Temporary Housing Areas' (THAs) Design on Mental and Social Health. *International Journal of Environmental Research and Public Health*. 2019; 16(23):4757.

<https://doi.org/10.3390/ijerph16234757>

Bendito F, Bris P. Shelter after disaster management. *Conference Proceedings of the Academy for Design Innovation Management*, November 2019

https://www.researchgate.net/publication/338538741_Shelter_after_disaster_management

DESIS
NETWORK
Design for
Social Innovation
and Sustainability

www.temporaryhousinglab.blogspot.com

www.etsidi.upm.es

talleretsidi@gmail.com



POLITÉCNICA

Universidad Politécnica de Madrid
ETSIDI Madrid DESIS Lab
Spain

Félix Bendito, Pablo Bris, Daniel Martínez