

CLIMATE SHELTER NETWORKS: LEARNING FROM INTERNATIONAL STUDY CASES FOR A BETTER REFLECTION IN THE FRENCH CONTEXT

Julia HIDALGO¹, Brais VILARINO², Marion BONHOMME³

1. Centre National de la Recherche Scientifique, Laboratoire Interdisciplinaire Solidarités, Sociétés, Territoires (UMR 5931, Université de Toulouse-CNRS-EHESS-ENSFEA), LISST, 31058 Toulouse – France, julia.hidalgo@univ-tlse2.fr

2. Universidade de Santiago de Compostela, Instituto de Estudos e Desenvolvimento de Galicia, IDEGA, 15782 Santiago de Compostela – Spain, brais.estevez.villarino@usc.es

3. Université Paul Sabatier, Laboratoire de Matériaux et Durabilité des Constructions, LMDC, 31400 Toulouse -France, marion.bonhomme@insa-toulouse.fr

Réseaux d'espaces refuge à la chaleur : tirer les leçons des cas internationaux pour une meilleure réflexion dans le contexte français

Mots-clés : surchauffe urbaine, politiques d'adaptation climatique, espace refuge, participation citoyenne

Keywords: urban overheating, climate adaptation policies, climate shelter, citizen participation

Introduction

This paper presents an analysis of the genesis, the circulation of models and the implementation of climatic adaptation policies to heat based on climate shelters. Slightly transforming existing infrastructures, climate shelters are public spaces that provide thermal comfort to vulnerable citizens, while maintaining other uses and functionalities. The analysis of international literature and the Barcelona's climate shelter network developed during the first phase of the Labex SMS-CROCUS (2023-2024) (Estevez *et al.*, accepted) allow for a better reflection in the french context in the framework of the recently started POPSU-Transitions research program in Toulouse (2024-2025).

1. Methodology

This research is the fruit of an interdisciplinary collaboration between social geographers, urban climatologists and civil engineers. An in-depth bibliography review concerning climate shelters definition, climate shelter networks implementation, anticipatory action and future urban living, and above all, a field work concerning the analysis of the Barcelona Climate Shelter Network was conducted in 2023.

2. Results

As we all know, in recent years, the world has undergone a significant transformation, from a realm of certainties to one filled with uncertainties and looming disasters. These catastrophes, which are both ecological and social, are largely attributed to the climate crisis caused by human activities. As a result, the future of cities and the planet is at stake, with the prospect of becoming uninhabitable.

To address this urgent issue, local governments worldwide have taken action to mitigate and adapt to climate change. One exemplary initiative is the Barcelona City Council's Network of Climate Shelters, established in 2019. This network aims to prepare the city for the anticipated rise in temperatures by transforming existing public spaces, such as libraries and schools, into climate shelters.

What sets the Barcelona Network of Climate Shelters apart, at least in one of its modes of assemblage, is its collaborative approach. The citizens actively participate in the design and implementation of some of these infrastructures.

This not only ensures that the shelters are efficient and effective but also fosters a sense of collective responsibility towards the climate crisis. By involving the public, the initiative not only prepares the city for climate change but also builds a more resilient citizenry capable of facing an uncertain future together.

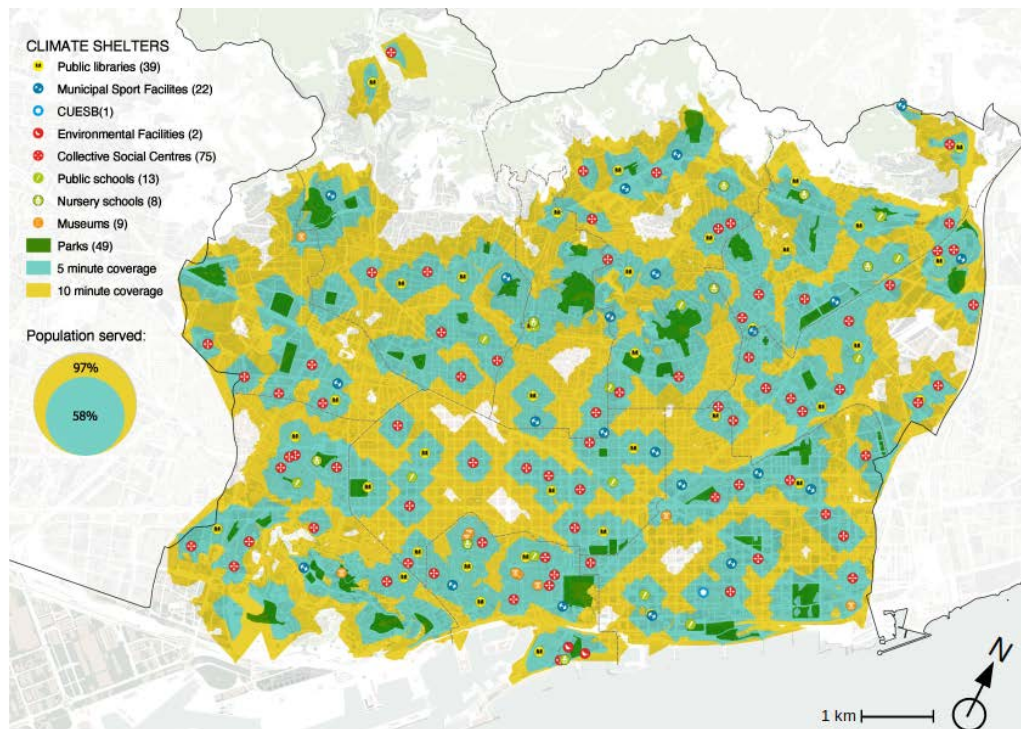


Figure 1. Network of climate shelters in Barcelona – summer 2023. Source : Barcelona Regional

Conclusion

When developing public heat adaptation policies, it is essential to understand the different modalities and potentials of each type of strategy. Climate shelters as apprehended by our research consortium, have the virtue of being not only a study case to apply knowledge in urban climatology, but also of conveying other values of climatic knowledge socialization and, promoting models of resource mutualization, a certain energy sobriety.

Bibliography

Estevez B., Hidalgo J. and Bonhomme M., Accepted : Anticipatory action and future urban living in a context of increasing temperatures: an analysis from the Barcelona Climate Shelter Network, **Book Chapter**, “Cities as anticipatory systems”, Elsevier.