

• A shared fieldwork area: fertile ground for interdisciplinary research into cities in the Global South

Stéphanie Dos Santos [1], Coffi Aholou [2], Bérénice Bon [3], Stéphane Cartier [4], Cécile Cornou [5], Yawo Mawufe Dotsu [6], Jérôme Duminil [7], Gabriel Feltran [8], Romain Gate [9], Helen Gurgel [10], Anouar Hechmi [11], Jean-François Léon [12], Valeria Mardonez [13], Laurent Marseault [14], Anastasie Mendy [15], Raphaël Onguene [16], Jean-Emmanuel Paturel [17], Risa Permanadeli [18], Yosra Saadi [19], Alexis Sierra [20], Valentin Valette [21], Irène Valittutto [22] and Marie-Hélène Zérah [23]¹

Background

One of the raisons d'être of the IRD's Knowledge Communities (CoSavs) is to build interdisciplinary groups around major sustainability issues. However, the recognition and promotion of interdisciplinarity, and even the pressure for it, come up against a number of issues relating to the links between disciplines, which often restrict the effective practice of interdisciplinarity. This is why the CoSavs' first "Sustainable Cities" summer school brought together 27 members from 10 countries and a wide range of disciplines (life sciences, earth sciences, social sciences and humanities) for a collaborative and pragmatic debate on the practice of interdisciplinarity in the study of the sustainability of cities of the Global South.

Contact

stephanie.dossantos@ird.fr

Further reading

<https://www.cosavillesdurables.xyz/?PagePrincipale>

An urban ecosystem – a jigsaw puzzle of heuristic spaces

Cities are generally characterised as complex ecosystems by their socio-spatial heterogeneity, involving high levels of inequality, and the fragmentation of their spaces, resulting in a diversity of issues and interactions around the question of their sustainability. Taken together, these areas form a jigsaw puzzle, with each piece raising its own set of scientific questions and generating its own heuristics. This is the premise on which we started our work, by choosing to share two areas selected for their cross-disciplinary nature and the diversity of potential research objects.

Two pieces of the jigsaw as a shared fieldwork area

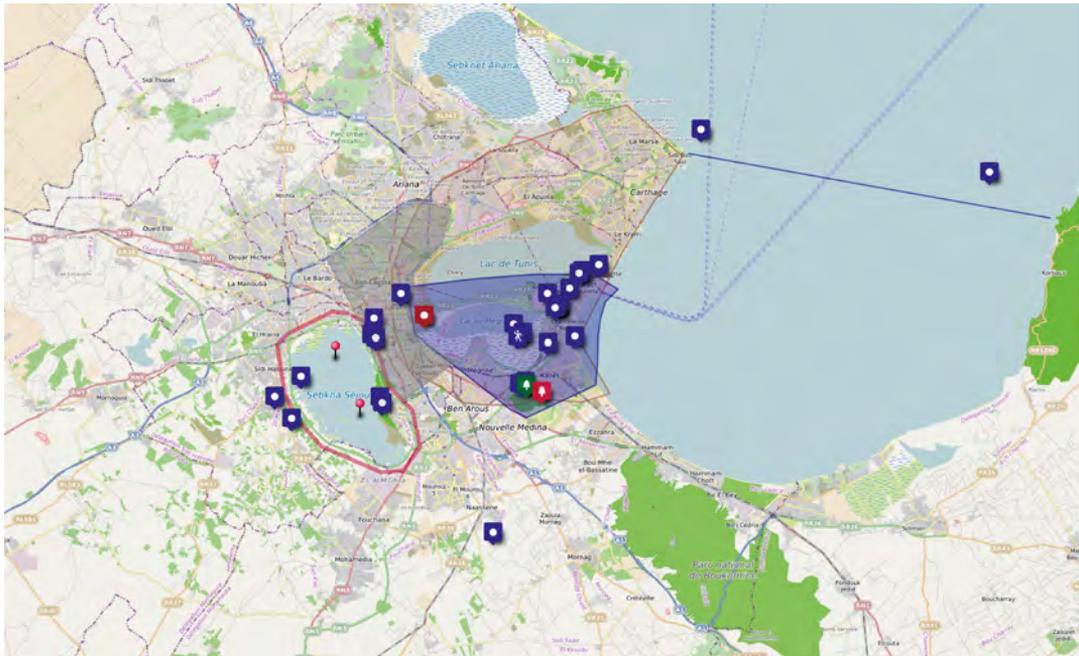
Two sites were chosen in the city of Tunis, the capital of Tunisia, representing two pieces of the puzzle: the industrial port area and the Sejoumi sebkha (flood depression). The industrial port area was chosen to analyse the issue of risks from a number of angles: the concentration of economic issues, urban manufacturing methods, interactions between technological and environmental threats, air and water pollution,

health issues, and possible conflicts of interest between major projects and the urban fringes in particular. This area also represents the “open city”, ready to trade with the rest of the world through its port activities. The area around the Sejoumi sebkha was selected because it represents the “interface city”, that is, the edge of the city, located in an urban-rural area, with self-built and working-class neighbourhoods and a wetland (home to a bird sanctuary) at the centre of a usage conflict. Biodiversity issues, household pollution (liquid and solid waste), agricultural and industrial pollution, and local residents’ health issues were all factors in this decision. Two civil society associations helped to give our group of researchers a solid grounding in the real-life situation of each of these areas: the Association of Friends of Mégrine for the industrial port area and the Association of Friends of Birds for the Sejoumi sebkha.

A shared fieldwork area as an opportunity to say and do things together

Sharing these two sites was a fantastic opportunity for co-learning on several levels. Firstly, it allowed us to engage in a dialogue that was less restricted than an academic one, and

1 · 1: LPED, IRD, Abidjan, Côte d'Ivoire; 2: CERViDA, UL, Lomé, Togo; 3: CESSMA, IRD, Paris, France; 4: PACTE, CNRS, Grenoble, France; 5: ISTERre, IRD, Grenoble, France; 6: CERViDA, UL, Lomé, Togo; 7: DIADE, IRD, Montpellier, France; 8: CEE, CNRS, Paris, France; 9: LEDa, UPD, Paris, France; 10: LAGAS, UnB, Brasília, Brazil; 11: GDT, UM, Tunis, Tunisia; 12: LAERO, CNRS, Toulouse, France; 13: LFA, UMSA, La Paz, Bolivia; 14: CAE Opteos, Montpellier, France; 15: UCAD, Dakar, Senegal; 16: UD, Douala, Cameroon; 17: HSM, IRD, Abidjan, Côte d'Ivoire; 18: ICSRS, Jakarta, Indonesia; 19: IPT, Tunis, Tunisia; 20: Médiations, SU, Paris, France; 21: PRODIG, IRD, Tunis, Tunisia; 22: PRODIG, CNRS, Paris, France; 23: CESSMA, IRD, New Delhi, India.



Collaborative map of locations of attention

(<https://www.cosavillesdurables.xyz/?CartographieDesterrains>).

therefore more likely to have a transformative effect. This practice meant that the city's sustainability could be examined using an experimental and inductive approach, based on research objects observed in the field, rather than through the prism of each discipline. This approach avoided the classic disciplinary ethnocentrism of "I, in my discipline, am interested in examining such and such an aspect". For example, working on different spatial or temporal scales, or on concepts that are common but not defined at the outset, was aided

by tangible discussions, focusing on specific objects. In addition, working together in a shared site provided an opportunity to learn about the methodological approach that others used, sometimes to the extent of "doing things together". Discussions on concepts (crisis, environment, forcings, limits, risk, etc.), know-how and proof protocols specific to each discipline helped to avoid a hierarchical ranking of disciplines, which is one of the obstacles to achieving a trusting and respectful dialogue between researchers from different disciplines.

Field objects as indicators of diversity

As a result of the diversity of our group, the on-site observation of each researcher revealed the multiple, sometimes antagonistic, questions and surprises of the different pieces of the jigsaw that make up these two sites, some of which certainly led to some conflicts of interpretation and therefore of analysis. For example, the map of the locations that attracted our attention (see illustration) shows that we are not all seeing the same things in the same places. It should be noted that for some people it was not possible to indicate a point, because their analysis scale was larger. A polygon representation was more relevant for them. Marking the site with a point or a polygon illustrates the diversity of perceived issues and therefore of approaches. This diversity helps to describe a set of urban spaces that are part of the overall

fabric of the city; discovering each of these parts is then a means of interpreting this urban fabric. In addition, the objects observed during these field studies were able to turn our tacit or implicit preconceptions of sustainability on their head, with car wrecks being a prime example. Although analysed by some as a source of pollution or waste, by others these research objects are no less integral to the value chain and processes that contribute to the city's informal economic fabric. These car wrecks are characteristic of the paradoxes of sustainability: a one-dimensional view of sustainability would not have allowed waste to be analysed as also contributing to the sustainability of the city. This diversity was a way of collectively examining the relationships and frictions between the major challenges of urban sustainability, and therefore the kind of trade-offs that need to be made (e.g. environment vs employment).

KEY POINTS

Carrying out interdisciplinary research on sustainable cities calls for a multi-faceted approach that requires methodological co-construction ahead of time. A shared fieldwork area is a powerful tool for implementing this approach. It creates the conditions for inductive co-construction of the shared research object by encouraging a transformative dialogue. It then helps with defining an operational conceptualisation of the sustainable city, a step that should be done in the first phase of setting up a project. In all cases, the earlier it is carried out, the easier it will be to establish a dialogue between disciplines.

SUSTAINABILITY SCIENCE

UNDERSTAND, CO-CONSTRUCT, TRANSFORM

Volume 2

Collective thinking coordinated
by Olivier Dangles and Marie-Lise Sabrié

IRD Éditions

**French National Research Institute for Sustainable Development
Marseille, 2023**

D2S follow-up of the articles: Claire Fréour and Magali Laigne
Editorial coordination: Marie-Laure Portal-Cabanel
Cover: Charlotte Devanz
Design and layout: Aline Lugand

Cover photo: Rock painting, Cueva de las Manos, Argentina.
© IRD/O. Dangles - F. Nowicki/*Une Autre Terre*

Photo p. 14: Cast net fishing: casting the net (New Caledonia).
© IRD/P. Dumas

Photo p. 52: Farm work with a plough (Morocco).
© IRD/G. Michon

Photo p. 86: Launch of the participatory observatory on vulnerability to erosion:
training ecoguards (Anjouan, Comoros).
© IRD/N. Mirhani

Photo p. 112: Modelled map showing the damage caused by flooding
and the success or failure of recommended measures (Madagascar).
© IRD/Didem/Rijasolo

Photo p. 138: Rice LMI workshop on rice improvement to cope with the constraints of climate change.
© IRD/F. Carlet-Soulages

Photo p. 164: Graphic animation of the Franco-Brazilian network for the sustainable development
of the North-East semi-arid region (ReFBN) (Brazil).
© IRD/M. Disdier

This publication is open-access and made available to the public under the terms of the Creative Commons license CC BY-NC-ND 4.0, which can be viewed at <https://creativecommons.org/licenses/by-nc-nd/4.0/deed.en>. Under this license, the original work can be freely redistributed as long as the authors and publishers are credited and a link to the license CC BY-NC-ND 4.0 is provided. Modifications are not authorised and the work must be published in its entirety. The material may not be used for commercial purposes.



© IRD, 2023

PDF version ISBN: 978-2-7099-3003-1