# Chapter 11
# A Social Cohesion and Equity Methodology for Emerging Metropolitan Areas and Bioregions

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## 11.1 Resilient Relations and Bioregion: Metropolitan Metabolism, Environmental Justice and Heritage System

We must face metropolises as complex and adaptive socio-ecological systems[1] whose continuity is based on their resilience and the adjustment capacity of the metabolism for metropolitan socio-ecosystems to the biocapacity and biohazard of

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[1] Based on the following definition: "a complex adaptive system is one that is made up of a dynamic network of adaptive agents, which act and react to the actions of other agents, on which their behavior depends. These systems can have very diverse natures, both of biological origin, and artificial, material, immaterial, etc. (Holland, 1996). Therefore, these systems "are pattern seekers. They interact with the environment, learn from experience and adapt as a result" (Cardona et al., 2011)

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natural ecosystems as well as to climate change.[2] All of this has been conceived in the context of a common territorial model, regardless of administrative delimitations, with the need to reach "almost zero" carbon balances before coming to the central decades of this century. Besides, another requirement should be the reconnection of the metropolises with the related rural spaces, as renewed examples of the new healthy distances, promoting management around the bioregions (Prats et al., 2017).

Resilience applied to spatial planning and management at all scales requires: biological, landscape, social and economic diversity; ecological versatility; implementation of a modular system; slow variables and boundary control; social memory; social capital; innovation; overlaps in governance and maintenance of ecological services (Díez Medina & Monclús, 2018). This approach represents the capacity, and the opportunity, for urban managers to confront a crisis condition, and rebuild the process to propose new alternatives, safeguarding interpersonal rights while socializing responsibility for public health.

Therefore, the resilience of the metropolitan socio-ecosystem must be based, within the scope of the bioregion (see example in Fig. 11.1), on the correct definition and configuration of its Heritage System, on the balance of its, let's say at least for now, Metropolitan Metabolism, and on the establishment of Environmental Justice. These elements must assume a fundamental role in the formulation of new
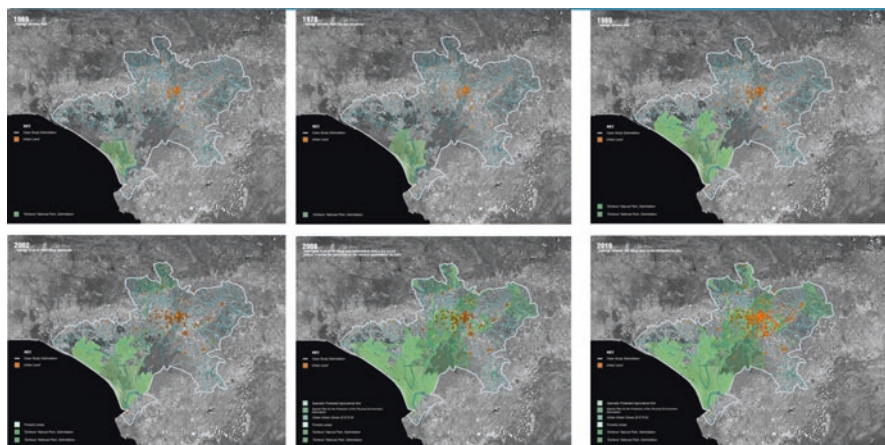


**Fig. 11.1** Seville's Bioregion proposal: towards sustainable landscape cartography. Territorial areas with an ecological and cultural significance, characterized by similar biophysical features, land use and socio-economic context. It is necessary to achieve that the bioregion tends to its sustainability as a socio-ecosystem, promoting "a harmonic, balanced and equitable relationship between a maintained functionality of the natural systems and rational exploitation of the multiple benefits that these generate". (Borja Barrera & Montes del Olmo, 2008)

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[2] The concept from resilience of regions and communities facing the effects of climate change is necessarily linked to these ideas: "flexibility, adaptability, persistence, self-regulation and self-organization, etc." (García García, 2016).

development logics that allow us to "move towards soberer and simple economies, with balanced ecological, energy and carbon footprints concerning the biocapacities of the bioregion" (Walker & Salt, 2006).

In turn, these new patterns of action must offer adequate support for life, optimize self-sufficiency and proximity in basic resources and environmental services, and integrate urban, rural and natural realities in a compatible approach.

## 11.2    The Importance of Landscape Equilibrium in Metropolitan Metabolism

This new socio-ecosystemic infrastructure must be supported by the positive network of the bioregion, organized as a modular and polycentric configuration. In this particular context, the modular concept refers to the ability to formalize larger structures or systems from modules or assemblies that are connected but not overlapping. Each of these modules is flexible and capable of adapting to external conditions, without disturbances affecting the whole ecosystem (Walker & Salt, 2006). Additionally, it must be constituted by its Heritage System, that is, by the set of cultural or immaterial, natural or anthropic goods that have a social value, as well as by their relationships and interconnections. The ability of this landscape structure to articulate and promote socio-territorial identity –uncoerced- will help to improve the function of ecological systems as green infrastructures, as connectors for biodiversity and also as elements of adaptation to climate change (Gallardo Ramírez, 2019).

Likewise, it is compulsory to analyze the complex interactions that are established in the exploitation of the ecosystems of the bioregion, as an integral part of the new infrastructure proposed. The aim is to understand and simultaneously manage these relationships to preserve their capacity to generate supplies and cultural (non-material) services, to regulate the benefits obtained (Millennium Ecosystem Assessment, 2005). It is precisely these benefits that form the basis of economic, social and cultural development (Montes del Olmo, 2007) and the improvement of the health and well-being of the inhabitants of the metropolises.

Based on the "recognition that human beings and their culture are an integral part of ecosystems and, therefore, the objectives of environmental management are of an eminently social nature" (Paredes Castillo, 2016), the third essential element of the new socio-ecosystemic infrastructure of the metropolises should be the promotion of Environmental Justice.

We refer to the generation of a more inclusive community, through the definition of strategies of proximity, gender, recovery of identity and promotion of the local economy. These achievements should be based on the production of hybrid spaces for the generation of food and energy, for recycling and new technologies, shaping a territory equipped and suitable for a community rooted in the place, and capable of identifying possible emerging community spaces (Montes del Olmo, 2007).

## 11.3  Principles for a Methodology Towards Social Cohesion and Equity for Emerging Bioregions

If equality at the political level could be defined as a political ideology for the common goods governed by laws, equity at the social level would be a type of "positive discrimination" in favour of the recognition of differences. An expanded perception of this would be undermined if we said that equality is not possible without -previously- inequity. But that in knowing that nothing prevents capitalism from maintaining its order, either we are unfair in improving the disadvantaged, or there will be no improvement at all.

What do we mean by equity? Equity, as a hypothesis in our assumptions, is composed of several principles, as a constitution, which would establish a basic charter, which on the territory of the city could have a title for its mandate: Urban Political Ecology (UPE according to Fraser (Fraser, 2013) and Swyngedouw (Cook & Swyngedouw, 2012). But it should free itself from its manifestation by the urban, reaching a territorial rooting more by the approach of nature and society intertwined as a single entity. Perhaps you could bet on the bioregion. In a bioregion, urban metabolism does not establish that vital factors (water, energy, food, etc.) become commodities to be manipulated by specialized labour and high profit for a few. A Bioregional Political Ecology would have four principles, (adding health as a non-separate perspective): Environmental Justice, The Common, Senses of Belonging, and the Rights (to the city, to the landscape, to inclusiveness, to dignity, etc.). Beyond them, an operational scheme can be described formulating a more accurate attempt to a methodology, as seen in Fig. 11.2.

For Environmental Justice, we would break down four essential aspects that are complexly intertwined (based on Iris Marion in 1990 and cited by David Schlosberg in 2007 (Schlosberg, 2007)): a Distributional Justice (which would be the need for environmental ills not to be concentrated in or near disadvantaged communities but (re)distributed more equitably), a Procedural Justice (the need for a more just and democratic decision-making process and the participation of disadvantaged groups in it), a Capacity Justice (the need to build 'the capacities needed for a healthy and functional community') and an Acknowledgement Justice (the need for recognition and respect for disadvantaged communities suffering from environmental injustice and for those involved in their struggle) (Cook & Swyngedouw, 2012).

For its part, the use of the term "the Commons" or "the Common Goods", refers to a change of mentality, more than to great ideas that are renewed, but that struggle to disapprove the senses attributed to basic notions, apparently immovable, that can shape societies, as David Bollier has written in the chapter entitled "The Growth of the Commons Paradigm" (Bollier, 2007). Reorganizing the guidelines of the so-called "Global Public Domain" is its function. The archetype of the commons is not primarily based on a system of property, contracts and markets, but on social rules and norms, as well as legal mechanisms that allow people to share ownership and control of resources.
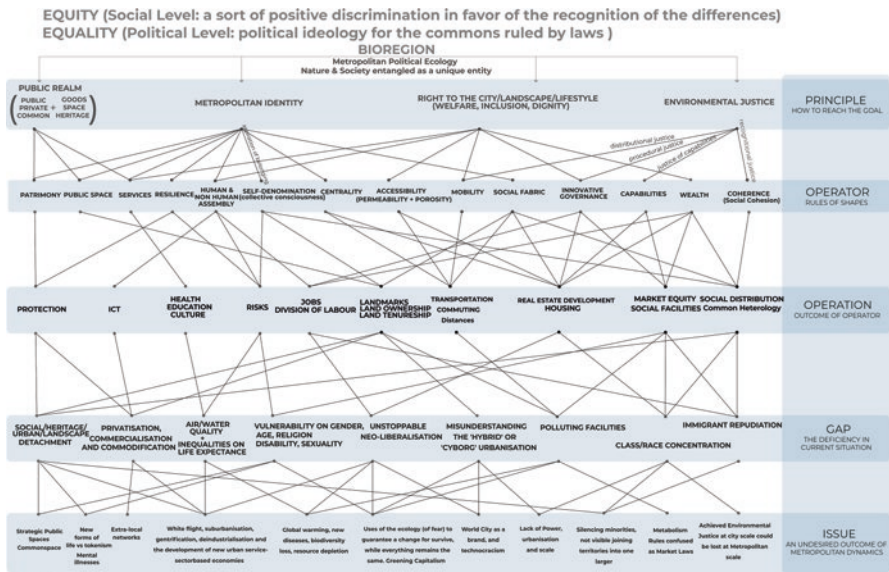
**Fig. 11.2** Proposal for a Methodology of actions in emergent bioregions

Nancy Fraser (Fraser, 2013) stated, based on Foucault, that if Fordist regulation aspired to universality despite its persistent inequality, post-Fordist governmentality, in turn, separates and channels individuals according to their degree of efficiency and risk prediction, enunciating a "dual society" of the hyperconnected and the excluded. Thinking the Commons, bends, or at least, pretends, the vector of inequality by counterbalance.

Regarding the sense of belonging, self-designation or collective consciousness, it can be said that the communities do not respond to the regulations and projects located on traditional boundaries (municipal, district, etc.), but rather, in a more complex manner, new territorialities are opened in the old boundaries, now areas of confluence. These can range from the emergence of new metropolitan areas, processes in the so-called post-metropolis, communities in transition, etc. Their operators would be the assembly of the human with the non-human, the centrality, the resilience of communities, and mainly, the heritage. Nevertheless, when we speak of sustainable metropolitan heritage, we must consider another of the most recognized definitions of heritage, enunciated by George-Henri Rivière, who clarifies that it explains people and their ascendants' common territory (Rivière, 1993). In this way, a shared guardianship, in terms of possessions common to a group of people who share a legacy or a culture, causes the emergence of common identity which, in this way, becomes a quality proper to cultural heritage (Keitumetse, 2013). It is particularly this understanding that heritage offers us of the territory in which it is embedded, and which gave it meaning that will interest us most when we speak of metropolitan heritage.

Finally, Rights. Everyone is familiar with the research carried out by Lefebvre at the end of the 1960s, under the name of "the right to the city" (Lefebvre, 1967). Understood in its origin, it must be considered as an enthusiastic postulation of a new and radical type of urban policy. Today, it is difficult to reconstruct this origin, although it is common to try to invoke it unaltered in more reformist contexts. It was Harvey, in his 2008 essay "The Right to the City'', who re-articulated Lefebvre's central belief, arguing that "the right to the city is much more than individual freedom to access urban resources: it is a right to change ourselves by changing the city''. Despite Lefebvre's mistrust of giving architects a place in this urban policy, we in architecture have believed that we can find a solution to give all citizens a degree of equity that is based on our actions to achieve the participation and appropriation of public space by the inhabitants.

## 11.4   Conclusions

It is not time to extend a "principle of hope" in the sense of Ernst Bloch, nor even in the sense of responsibility for that of Jauss, it does not have an alter-globalization posse. It is a matter of locating practices that are based on the four principles and the subsequent articulations as shown in our proposed diagram and succeeding methodology. With this, the aim is to understand the daily life of an architectural intelligence in gestation, along with other social practices. Such a meeting could be called a bioregion, blurring the limits imposed by a city on the rise in terms of economy and representation. The concept of bioregion seeks to test formulas of analysis and socio-territorial management, supplanting the dualistic logic of nature/culture with the comprehension that natural and human dynamics are always linked. Those who best describe the definitive limits of a bioregion are the very people who have lived it, and they do so through human recognition of the realities of living on the site.

Only through the conception of a reality that must be valued in a collective and synergic way due to its environmental, historical, social, cultural and productive charge, will it be possible to articulate conducts that allow the development of a balanced urban metabolism in the scope of the bioregions. All this, thanks to the construction of individual visions that, within the framework of a common imaginary, assume the landscape as a reality capable of condensing all those potentialities that should allow a sustainable future, assumed as a legacy in equity for future generations.

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