

BIODIVERCITIES RIO 2012

The BiodiverCities 2012 international conference took place at the Catholic University of Rio de Janeiro on the 29th and 30th of October 2012, within the framework of the research programme entitled Urban National Parks in Emerging Countries & Cities (UNPEC) (2012-2015), financed by the Agence Nationale de la Recherche (ANR), France. UNPEC is an interdisciplinary programme of fundamental and applied research which compares urban national parks in the large metropolises of the South: Rio de Janeiro, Cape Town, Mumbai and Nairobi.

Research works dealt with actors' convergent and divergent dynamics, and with the many challenges and great diversity of urban protected areas which are too often considered as "natural" against cities as the ultimate human artefact. The main themes which were discussed during six sessions are as follows:

1. The importance, role and challenges of urban protected areas;
2. The role of research in managing urban protected areas;
3. Urban protected areas: towards a new model of relationships between nature and culture?
4. Public policies and urban protected area management: synergies and contradictions;
5. Local population participation in managing urban protected areas;
6. The conservation of ecosystems and urban protected areas: how to combine economic and environmental sustainability.

In addition to research results, the BiodiverCities 2012 conference revealed tensions founded in the local geopolitical context, giving rise sometimes to lively discussions. Indeed, Rio is currently undergoing a lot of pressure in relation to on-going urban transformations, for the preparation of major international events such as the World Cup of Football in 2014, or the Olympic Games in 2016, and this in addition to the conflicts linked to the structural urbanisation pressures on protected natural areas.

The conference worked towards deconstructing the philosophical and cultural opposition between city and nature, urban and natural spaces, as well as Man and the environment, before contributing to the main objective of new relationships between humans and what we call nature. In this sense, BiodiverCities has three goals: thinking about the diversity of life and living beings, including human beings; taking into account the diversity of cities; and taking into consideration the great variety of cultures and their relationship with nature in particular. In this context, urban protected areas (UPAs) represent life-size laboratories where new experiences can unfold. UPAs cannot be the tree which is being preserved to warrant destroying the forest; they must be recognised for their specificities and be an educational showcase of *biogeosphere* conservation, which also includes mankind.

Contributors drew attention to the importance of knowing why and for whom conservation is necessary and what type of conservation is possible according to which context. Practice shows that conservation in the strict sense does not seem adapted to the urban context. As such, it is time to switch from a theoretical to a practical phase so as to view UPAs no longer as problems but as opportunities.

UPA challenges concern the evolution of the fortress conservation concept towards a mutual host relationship between parks and cities, where the dynamics and treatments of the interface between these two entities play a dominating role. This interface is called upon to play a role of integration border as opposed to separation border as was previously the case. The evolutionary process, which has been studied in the UNPEC programme, can mean hybridisation areas in the field. In this context, environmental education becomes a fundamental tool

to transform human relations, and those between urban dwellers and nature in particular: it is a social, environmental and developmental integration policy.

In order to question the “role of research in managing urban protected areas”, the contexts of the four urban national parks have been examined by the UNPEEC programme. The complexity of the socio-economic situation in the large metropolises of emerging countries, requires us to adopt a new look as regards environmental management policies. Despite the difference of contexts, the four pilot parks of the UNPEEC programme are all directly confronted with the impacts of socio-economic dynamics marked by strong inequalities. The notion of emergence brings out the juxtaposition of social groups and spaces which are increasingly contrasted, with often divergent nature and city representation systems. The four sites, i.e. Mumbai (at the foot of the Western Ghats), Cape Town (in the Cape Floral Kingdom), Nairobi (at the foot of the Eastern Afromontane) as well as Rio (in the Atlantic tropical forest), are situated in or near world hotspots classified as Biosphere reserves. These urban parks seem like very significant laboratories for testing the capacity of a society – in an emerging economy specifically – to cohabit sustainably with a rich biodiversity of global importance, via different modes of governance and public awareness.

What emerges from this are two types of protected natural areas under the influence of urban dynamics. On the one hand we have the old “fortress conservation-type” sanctuary park model, in poor shape, as illustrated by the Sanjay Gandhi National Park. On the other, we have a second type of park which could be referred to as an “emerging park”, with a dynamic similar to that of emerging metropolises where contrasts and contradictions are also the driving force behind the rise of a new city model. This type of park is that which carries the image of the city, with a double iconic role, i.e. becoming a showcase of conservation on a national and international scale, and being a model of urban biodiversity management. As such, this involves a double dynamic: integrating the park into the metropolis and identifying the latter in terms of the former. The experience of the Table Mountain National Park, in Cape Town, is a typical ideal which the Park of Tijuca in Rio uses as a model. As such, the park is used as an urban logo when competing with other metropolises to appear as “sustainable world city”, even if this aspect of things was not openly discussed during the conference. The National Park of Nairobi is still not sure which type it falls under.

However, we find a model transfer difficulty in the example of the Hoerikwaggo Trail in Cape Town, which inspired the establishment of the Transcarioca, a path which is hoping to connect Eastern and Western Rio through UPAs. In this regard, a major difference has been highlighted between the two parks: Table Mountain is surrounded mainly by well-off suburbs while in Rio, the Park of Tijuca is surrounded by 102 favelas. This creates serious urban tension issues (although such issues actually also exist in Cape Town). The issue of hiker safety appears nonetheless secondary next to that concerning the penetration of the city’s heights. This action can be interpreted as an attempt to appoint a managing body for these areas which are doomed to failure without the support of the residents of the suburbs concerned. In the context of emerging countries marked by strong social inequalities, protected areas also need the support of the disadvantaged populations in order to improve their management and potential as regards services rendered (maintenance of biodiversity, safety and protection among others). The problems encountered in Nairobi, Mumbai and Cape Town as well as the striking example of geopolitical context in Rio, show how difficult it is to integrate the knowledge of local populations, their relationship with nature and their needs in conservation policies. While protected areas become useful elements of the urban landscape for nature and cities at the same time, and while cities appear as fertile lands for the construction of a true “urban nature”, the major challenge remains to ensure that urban nature is really democratic, open and accessible to the entire urban population.

The difficulties encountered in the concrete application of the different categories of conservation stemming from international models, show that they can represent space and time perception monitoring instruments which differ according to culture. They also testify to integration difficulties encountered between scientific and traditional knowledge. Other challenges have also been raised: the application of the “buffer zone” notion (how to apply in the cities regulations which comes from protected areas?), monitoring exotic species which must be better adapted to the urban context, or still the need to integrate the city and its residents into conservation policies. The protected area management plan, the urban development master plan and other documents on soil rights must be complementary, and this despite the long time it takes for cultures to evolve and for this to be reflected in laws and legislations.

To prevent protected areas from becoming islands surrounded by urban networks, the notion of green infrastructure means to link natural spaces to guarantee the protection and durability of biodiversity, ecosystemic services and the quality of urban life. Nonetheless, the experience of “conservation mosaic” or “green and blue network” requires consultation between the different levels of government responsible for the management of protected areas, as well as the integration of the civil society and its representatives. The establishment of the Mata Atlântica Campus of the Fio Cruz in Rio de Janeiro, illustrates an integration process between the city and its actors around an integral conservation unit, the State Park of Pedra Branca, through a sustainable urban project: land regularisation by local populations in consultation with the different actors, and an active participation in the Park’s Advisory Committee. On the contrary, mobilising people with a view to protecting the Serra de Gandarela, an area coveted by major mining companies in the metropolitan region of Belo Horizonte in the Minas Gerais, draws attention to the extent of the conflicts of interest and the strength of the economic power faced with environmental protection constraints and its ecosystemic services. This example illustrates the need for a paradigmatic change, i.e. actually taking into account the development of goods and services associated with conservation units, as well as their true contribution to the national and global economies in a context of global climate change.

Other experiences showed how integrating local populations into the management of protected areas can contribute to improving the quality of conservation, while contributing to the quality of life of the populations concerned. The Park José Guilherme Merquior which was created in 2000 in Rio de Janeiro, integrates a “Quilombola” community (which comes from runaway slaves) recognised as a “special area of cultural interest”, a legal instrument of the city’s master plan. The Park of Serra de Tiririca which was created in 1991 and managed by the Federated State of Rio, integrates a traditional community which has been present on the site for 130 years, through a “contract of environmental compromise”.

From this, it emerges that it is necessary to recognise that urban protected areas have several vocations. They must fulfil their initial functions as spaces of biodiversity conservation, through a dynamic and progressive form of management meeting various issues:

- Maintaining and increasing biodiversity;
- Preserving the ecological balance or even improving ecological quality (water, soil, air, noise, light, protection against fires, various pollutions etc.);
- Satisfying the cultural demand (in the human, environmental, social, cultural as well as economic sense): leisure spaces, landscaping or even subsistence production, cultural benchmarks and constructions, development of goods and services;
- Rapprochement of man and nature, function of environmental education and awareness;
- Adaptation to the consequences of climatic changes.

Confronted with so many challenges, we were reminded that there is a need to develop applied research further by associating scientific knowledge with the evolution of protected area management.

The next BiodiverCities conference will take place in Cape Town in 2014.