5th WORLD ENVIRONMENTAL EDUCATION CONGRESS
Earth, our common home
Palais des congrès de Montréal
May 10 – 14, Montréal 2009

Thematic niche EE and the City

Environmental Education and Urban Challenges

Final report

Besides the opening and closing plenary sessions, programming on **Urban challenges** comprised *eight oral communication sessions* one of which was merged with the session on the *heritage interpretation* component. More than thirty presentations lasting between 12 and 15 minutes were given by educators, facilitators and researchers from five continents.

Seven workshops took place in parallel, seven intensive work sessions of 90 minutes each.

The Congress was innovative with its formula of *round-table* which proved very successful. In the urban challenges component alone, it provided the possibility for about twenty participants to meet up to eight others in the form of "kitchen meetings."

During the three days of the congress, in a space next to the exhibition hall, twenty poster displays enabled participants to show their projects.

Finally, the **political forum** included a "*City's leadership in EE*" panel, bringing together in particular Montreal and Lyon elected officials in charge of environmental and sustainable development in their respective metropolitan areas. This panel is the subject of a separate summary from the current report.

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Opening plenary

Professor David Brown, Director of the School of Architecture and Urban Planning at McGill University in Montreal, opened the ball by placing man and habitat at the heart of sustainable development issues. He put into perspective the unusual nature of this concept by going back to the sources of urban theories. By strengthening participatory processes and having government support for grassroots initiatives, urban development will meet the needs of communities. It is also necessary that citizens be adequately informed and trained in development issues and able to contribute. Mr. Brown recalls the experiences he took part in as an expert in both developing countries (in southern Trinidad) and the heart of Montreal («Green, active and healthy neighbourhood," project conducted by the Montreal Urban Ecology Center).

Oral communication sessions

The programming of the Convention was designed to give participants the choice among a dozen oral communication sessions and workshops taking place simultaneously in different rooms of the *Palais des congrès* in Montreal. As it was not possible to provide simultaneous interpretation in three languages for each session, we needed programming that could bring together presenters sharing a similar theme and able to communicate in a language that is comprehensible if not familiar. As the communication request form asked proposers to indicate a first and second language of exchange, it was possible to build coherent programming of four sessions in English, three in French and one in Spanish. The oral sessions lasted 90 minutes and included up to six different presentations.

Session 1: Nature in the city (English)
Audience: 40 delegates

The six speakers presented very diversified angles on the theme of *Nature in the city.* From these Canadian (3), Brazilian, Portuguese and South African experiences emerged the importance of defining educational projects that take into account urban people's **perceptions** of nature around them. Most projects submitted referred to the issue of water. The experiences mentioned (Montreal archipelago - Passauna River in Brazil and the Oporto region of Portugal) all put forward the importance of creating a constructive dynamic between citizens and their environment, a dynamic based on knowledge of facts (to overcome perceptions) which leads to action (to maintain or restore the quality of the aquatic environment). Two presentations explored the emotions associated with two natural phenomena observable in town: the wild nature of some large parks or nature parks and the negative reactions related to the presence of non-domestic animals such as rats or raccoons.
The presentation of a project at the Ministry of Agriculture and Environment of South Africa completed the session. A pilot project called Ubuntu Villages, conducted in a disadvantaged

neighbourhood of Durban helped train ten families by providing technical knowledge and some horticultural equipment. Their mission: to green their environment and develop small-scale networks of urban agriculture with their neighbours. Over the years (2005-2008), the original families have played an educational role in the neighbourhood and become in turn sponsors of the Ubuntu Villages project. The key to success: strong support from the ministerial authorities and ongoing monitoring by horticultural facilitators of the families educating their peers.
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Session 2: Imagining your city (Spanish)
Audience: 25 congress attendees

The four planned speakers were present, three from Spain (Santiago de Compostela, Sevilla and Girona) and one from Colombia. Their presentations focused on two main themes: EE in an urban setting in a historical perspective and the contribution of drawing as a reference tool for imagining the city.

Two speakers presented complementary aspects of the relationship between history and the environment. Urban people are part of a social fabric that has developed over time. This historical approach helps people perceive their city as an ecosystem in itself. This was demonstrated at Seville in Spain -. Likewise, educators and historical interpreters in the City of Girona in Catalonia have now adopted an environmental approach in their work, which helps local people appreciate their city.

The use of drawing as a teaching tool helps to capture perceptions and social representations of an environmental problem. This was shown by an experiment conducted in Galicia on climate change. In Colombia, a study in Barranquilla of youth 12-16 years in age shows their representation of the city to be dominated by a sense of danger and insecurity. Moreover, the city centre is systematically shown without natural elements.

Session 3: Taming the City (French)
Audience: 25 congress attendees

There were three presentations: two from France (Lyon and Lille) and one from Quebec (Montreal). Very different from one another, the approaches were surprisingly complementary. During the session, it was possible to incorporate into the concept of environmental education concerns that were historical, social, architectural, urban (transport and mobility), political (the role of public institutions, mobilizing citizens, complementarity between state structures, organizations of civil society and citizens when it is a matter of environmental education "in town").

More specifically, Lyon's "pedibus" network has grown since the commute to school has become part of the solution to the problem of urban mobility. Part of the education plan for sustainable

development in Greater Lyon, this action is a motivating way for children (and parents) to claim back the city. The same is true for students, teachers and managers of colleges who, in the Nord Pas de Calais (Lille region), benefit from the atmosphere of cooperation that has developed between national education authorities, study programme officials, the departmental authorities, building managers and the *Conseil d'architecture, d'urbanisme et de l'environnement du Nord (CUE)*, which played a key role in the implementation of Agenda 21 "in college." In Quebec, the "immersion" approach of L'Autre Montréal has helped Montrealers discover and understand their environment. In the context of non-conventional tours, this urban entertainment grouping suggests reflecting on different problems concerning heritage protection, social development and urban development, and encourages citizens to take part in the public debate and to become actively involved in managing their living environment.

Session 4: Urbanity and biodiversity (French)
Audience: 30 congress attendees

Four contributors shared the session: two Quebecers from the Montreal area, a researcher from Costa Rica and an Italian educator (Bologna). The presentation by the Central American researcher made the link between air pollution and the presence of some lichens on the surface of trees. He highlighted the contribution of sciences (physics and biology) in ways of determining the "state of health" of a city. The presentation by the Italian educator concerned more the social sciences. "Thinking of children" was the motto of people who refurbished the historic centre of Bologna and transformed it into a true garden of the elements for children to unleash their creativity in an intergenerational and multicultural space. The two Montreal experiences (city centre and periphery) offered additional thoughts. A first on the educational virtues of collective gardens were the original idea is to restore a degree of plant biodiversity as a step towards food self-sufficiency. A second project, conducted in the southern suburbs of Montreal (Montérégie) has trained a squad of citizens able to recognize the signs of decline of the chorus frog (absolute indicator of environmental decline) and to sound the alarm to stop the phenomenon. In this instance, it is less a matter of restoring biodiversity than protecting it from urban sprawl.

Session 5: Architecture and Design (English)
Audience: 20 congress attendees

The three presentations of this session came from participants from Finland, Taiwan and Canada (Montreal). For Canada, the project reference was that of the Benny Farm Housing Complex. Once created to house the veterans of the war of 1939-45, he had to revitalize these buildings which were falling into disuse. Developers and potential residents wanted to be a model for green residential development containing a high percentage of affordable housing while adopting a sustainable development approach. Evidence was provided that such objectives can be achieved without the participation of interested citizens at all stages of the process, which cannot be achieved without educational strategies that give them a good understanding of economic and technological issues.

Benny Farm is one such project, the most successful in Canada. The Finnish speaker presented research results on the power of photography as a structuring element of personality. Teenagers equipped with cameras were mandated to photograph their significant urban spaces and then discuss them. For this kind of approach, young people were asked to interpret together their environment both rigorously and emotionally. They are therefore better equipped to change it ... but also themselves to undergo change. From Taiwan came an interesting typology to make connections between environmental awareness and choice of place of residence.

Session 6: The waste challenge (English)
Audience: 20 congress attendees

The four participants expected came to the workshop including two Canadians, one Spaniard and a Mexican.

The main issue in the presentations concerned citizen participation in the process of waste management and the development of social and environmental awareness through the promotion of the 3R-V (source reduction, reuse, recycling and enhancing the value of residual materials). The pilot project conducted in Vancouver demonstrated the importance of knowing the habits and motivations of citizens living in a given sector to improve the municipal recycling program qualitatively and quantitatively. Mexico City developed an environmental education program in conjunction with the academic community for people living near a protected area crossed by the Ayuquila River. The goal: changing the paradigm of waste management by adopting a participatory approach focused on solving problems (threat to the survival of some wildlife species, river pollution, etc.). This has led to the creation of an inter-municipal board for waste management and better citizen participation in waste management. In Montreal, over 20 years, more than 100,000 citizens have been sensitized to the issue of waste management by visiting the Saint-Michel Environmental Complex. From 1989, the municipal landfill was equipped with an avant-garde system for biogas recovery connected to a central electricity production and its surroundings have been provided with a sorting centre (recycling), a composting site, a collection plateau for wood residue, an eco-center, etc. The guided tour education program at the centre has enabled citizens to become aware of the basic issues linked to waste matter management (such as the recovery of methane) which often go beyond waste management in the strict sense. Finally, a representative from the City of Madrid presented a methodological framework to identify experimental criteria for better environmental communication to citizens, to promote waste management, but also responsible consumption.

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Session 7: Schools in the city (English) Joint session with a session of the Heritage Interpretation thematic niche
Audience: 35 delegates

The (2) contact persons from the urban challenges niche who took part in this joint session came from the City of New York. They reported on a program sponsored by the municipality in its tenth year of application which helps young New Yorkers living in disadvantaged areas to leave their communities temporarily to take part in nature trips. Numerous circuits (charter bus) are available, from the discovery of unknown ecosystems located on the territory of the Greater New York area to trips to the water sources that flow from faucets. It is amazing to see how these young people - who are not naturally exposed - rapidly find ways of enriching their lives through contact with nature and an awareness of the challenge of managing water for a city of this size.

Session 8: Taking back the city (French)
Audience: 20 delegates

During this session made up four presentations, the talk was of participatory processes as basic conditions for genuine ownership of the city by its residents. A Spanish university has reviewed the main parameters that must be taken into account to ensure a truly participatory process. A contributor from Lyon presented a draft inventory project of biodiversity observed in the gardens of France, the first step in a more comprehensive inventory that has highlighted the importance of creating linkages with the operators of these private gardens (an educational activity).From Senegal, a representative of the mayor of a district of Dakar, Rufisque, called for collaboration by teachers and students in city schools to become the agents to sanitize urban life. Finally, as regards Montreal, a representative of the Regroupement des Éco-quartiers of Montreal, presented the Eco-quartier (eco-neighbourhood) programme. Established by the municipality 15 years ago, the city program provides financial support for community organizations in neighbourhoods so that citizens take control of their surroundings. Since the issues have evolved since the program's inception, the action plans of Eco-quartier agencies have diversified and transcend the initial challenges, mainly oriented to cleanliness and waste management (recycling). The Éco-quartiers are increasingly called upon by citizens to help them green lanes, recover rainwater, combat climate change, etc. Ultimately, the goal is to heighten the environmental awareness of Montrealers and increase their skills and ability to shape their environment.

The workshops

For workshops, the language of communication was that of the contributor. These "working sessions" grouped together delegates interested in investigating a single issue more deeply and exploring it as a group. Five of the seven workshops in the urban challenges niche were part of this logic. Two were conducted in English, two in French and one in Spanish. The latter two were addressed (in English) to the congress participants who were part of the network of "*Regional Centers of Expertise in Education for Sustainable Development"* of the United Nations University. The goal is to share the experiences of these structures around the world.

Atelier 1
Developing young people's skills for a sustainable future

Workshop conducted in English by members of the team of Professor Diane Pruneau, University of Moncton in New Brunswick (Canada). - Attendance: 12 delegates.

From the outset, three extracts from video documentaries were proposed. The first dealt with the struggle of the Cree Nation before hydroelectric development projects in James Bay were subject to agreements with the Government of Quebec; the second concerned the efforts of oyster fishermen on Long Island Pound who called for water quality control operations in their pond; and the third on setting up a school for garbage collectors in Cairo. Very different from one another, these three situations fuelled the discussions of participants asked to identify what can help develop skills of the stakeholders concerned when they need to regulate environmental problems affecting their health or way of life. The objective being to generate creative solutions to problems, the workshop provided an opportunity to explore various avenues of "prospective thinking," including scenario building and future projection.

Workshop 2
Urban EE, vector of active citizenship

Workshop conducted in French by Miriam Fritz-Legendre, Lawrence William (France) and Stefano Vitale (Italy), the CEMEA (Training Center for Promotion of Progressive Education) - Attendance: 12 delegates.

The CEMEA are public education schools. The workshop suggested participants dive right into the action. Three groups began to explore, each from a different angle, the area around the Palais des congrès in Montreal. Their mission: to understand the neighbourhood using their five senses to explore: what one sees, hears, smells, touches and tastes. This approach determines reflection on the future of a district based on the feelings and needs of humans who live there or who are passing through. This "pedagogy of complexity" has a few basic rules. It must be active, tolerant and "pleasant." The pleasure felt is a guarantee of results that can be gained. Back in the main group,

observations were shared and discussions held as to the strengths and weaknesses of the space explored. For leaders of the workshop, "the point is to understand that environmental awareness starts at home (and in the home) in their daily lives. *Urban environmental education cannot, of course, be a response to all urban problems (housing, employment, etc.), or a mode of action for conflict management, but it is possible to move towards active citizenship through constructive exchanges among city stakeholders*."

Workshop 3
Cartoons and citizenship education

Workshop conducted in Spanish by Gustavo Horacio Vera of Argentina (Asociacion Guardianes des Ambiante) - Attendance: 6 delegates.

The workshop proposed two parallel styles of cartoons: the first - an Italian production - made use of very advanced graphic techniques to represent the cities as theatres of crime; the other - a German production - showed a town suddenly transformed by the mere fact of decisions to plant flowers, trees and shrubs. The workshop emphasized the importance of cartoons for young people in search of identity. Since children spend hours in front of their screens (television or computer), it is crucial to use this medium to reach them with information and environmental messages using familiar characters (human or animal but animal in particular). Mr. Vera presented examples of Argentine productions of this type.

Workshop 4
Green neighbourhoods and participatory democracy

Workshop offered in English by Jayne Engle-Warnick, on behalf of the Urban Ecology Center, in the context of establishment of three "green, active and healthy neighbourhoods" in Montreal - Attendance: 20 delegates.

The workshop facilitator positioned the project to create "green, active and healthy neighbourhoods" as an extension of the "Let's imagine Milton Park" programme. This strategic area of Montreal, which runs from Place des Arts and McGill University, between the business district and the mountain, has a strong tradition of residents' taking charge of their living environment. Participants were invited to contribute to the debate prior to creating green, active and healthy neighbourhoods by putting forward innovative solutions to the main urban problems. The only guidelines they received were to work with passion, but in a responsible fashion.
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Workshops 5 and 6
The urban challenges raised by the Regional Centers of Expertise in Education for Sustainable Development (ESD)

These two periods of workshops organized by the International Secretariat of the REC, University of the United Nations, provided an opportunity for delegates from a dozen RECs across the world to share their experiences on the congress theme and the specific issues addressed in the "urban challenges" niche.

Today there are 62 RECs. How do you assess the ESD of these centres? We must focus on pluralism, "GLOCAL" i.e. worldwide (global) and local. The regional approach is well suited to ESD. We must focus on learning and exploit all forms. We need a holistic approach to strengthen the concept of sustainability and erase the boundaries between institutions to improve capabilities. We should move on from assessment methods based on accountability to methods based on REFLECTION. We do not need REC police cloaked in assessment logic.

Workshop 7
Urban discovery – Immersion approach

Workshop offered in French by Bernard Vallée, from L'Autre Montréal, Collectif d'animation urbaine - Attendance: 40 delegates.

Mr. Vallée invited participants to accompany him on the circuit he had prepared from the exit of the Palais des congrès to the banks of the St Lawrence River. A hundred metres in a straight line but with 400 years of political, social and economic history. Some very recent episodes of this history have left fresh traces on the building walls. A discovery of urbanity by highlighting the social conflicts, cultural movements and citizen initiatives that helped shape it and continue to do so.

Closing plenary

The closing session of the Urban Challenges niche took place in two stages.

Louise Chawla, professor at the College of Architecture and Urban Planning from the University of Colorado, editor of the journal *Children, Youth and Environments*, first mentioned her experience as a Fulbright Scholar when she re-launched the UNESCO program "Growing up in an Urbanizing World". This commitment followed on the heels of the implementation of the UN Convention on Children's Rights, which came into force in 1989. *The ecology of young people's developing competence to meet urban challenges* was the title of this presentation. Children and teenagers represent the majority of urban dwellers. This is particularly true in Latin America and urban areas of Africa and Asia. Across the world, they hold the future of cities in their hands. The intervention bridges two research goals: how young people acquire skills and develop the conviction to achieve worthwhile goals, and secondly how they are able to relate these worthy goals to improve living conditions in their neighbourhood through their relationship with their communities and natural environment. Drawing on the examples of the *Growing Up in Cities* program of UNESCO and the UNICEF *Child Friendly Cities Initiative*, the speaker proposed an intervention model that offers young people the opportunity to develop their skills at the same time as their sensitivity to the quality of urban life.

In the second part of this meeting, delegates in the urban challenges niche from the past few days discussed some summary ideas put out for discussion. Agreement had to be reached on the message to deliver on behalf of the niche to the closing plenary of the congress in the coming hours.

The wish of the co-chairs of the congress (Lucie Sauvé and Bob Jickling) was that each niche articulate its message by addressing the three cross-discipline questions tackled by everyone throughout the conference in brief fashion.

• *how can environmental education add meaning to our lives?*
• *how can environmental education contribute to social innovation?*
• *how can environmental education contribute to political innovation and influence public policies?*

The conclusion of this final report incorporates and expands on these key ideas.
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Conclusion

How do you summarize all these exchanges? At congress closing, reference to what the Congress co-chairs termed "cross-cuttings questions" provided something of a response.

The first: *how can environmental education add meaning to our lives?* Throughout the debates in the urban challenges niche, the answer was clear: EE is synonymous with OPENNESS. Opening the neighbourhood, the district, the spaces that surround us and which we wish to or are able to take control of.

EE is also synonymous with SENSITIVITY. Sensitivity to smells, sounds, shapes and textures that characterize the urban environment with green spaces, streets, architecture, history, private areas, its community spaces, for which the "design" is part of the location's culture.

This openness and sensitivity are also aimed at people who live or frequent these areas, but also toward oneself, toward the person we are, living in a particular community that is growing more dense and more diversified. EE is, in other words, a creative and generous way to be present and attentive to the world around us.

The second: *how can environmental education contribute to social innovation?* In this second issue, the reflections of the urban challenges niche overlap those of many other niches. EE stands for INVOLVEMENT in a search for balance between the natural, social and economic components of our urban life. EE is a school of ACCOUNTABILITY housed under the banner of intergenerational and intercultural dynamics. EE develops the virtues of TOLERANCE and develops negotiating skills in the search for the common good. In this sense, it is a school of SOLIDARITY, which chooses the path of inclusion.

Third question: *how can environmental education contribute to political innovation and influence public policies?* At city level, more than any other level, the scope of action is geared towards ACTIVE PARTICIPATION. EE feeds citizen awareness so they can take part in the political debate and influence the course of public life. The development of eco-citizenship opens up this participatory democracy rooted in the location's history (district - city - urban area) and mobilizes all citizens in the process.