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ATRICK GEDDES AND THE ITALIAN  
TERRITORIALIST SCHOOL:  
CONCEPTUAL AND METHODOLOGICAL  
APPROACHES. REFLECTIONS ON THE  
PARTICIPATION OF CHILDREN IN THE  
REPRESENTATION OF HERITAGE VALUES AT  
SANTA LEOPOLDINA CITY – ESPÍRITO  
SANTO STATE / BRAZIL

ABSTRACT

The study conducted by Patrick Geddes of the child in the city, dates back to the *Child-Welfare Exhibitions*, as well as his interest in studies of the historical and geographical origins of cities, based on fables linked to the simple and natural condition of man in his relationship with the environment, in narratives of hunters, miners, lumberjacks, shepherds, farmers and fishermen. The Italian Territorialist School, from Alberto Magnaghi, revisits critically and reflectively the pioneering participatory approach of the Geddesian thought, and develops methods, techniques and tools for the participation of children as actors-protagonists in the representation and in designing the territory. Indeed, this article discusses the representation of heritage values by children, at a historical site originally occupied by Germanic immigrants, which is the city of Santa Leopoldina, located in the state of Espírito Santo, Brazil. In order to conduct the research, we have made use of the drawings executed by students, age between 11 and 15 years, developed individual and collectively. The drawings, produced through different recreational and educational strategies, reveal greater emotional relationship with the landscape environment than with the urban environment.

KEYWORDS

Patrick Geddes. Italian Territorialist School. Representation of Values. Children's Participation. Santa Leopoldina City – Espírito Santo State / Brazil.

PATRICK GEDDES Y LA ESCUELA TERRITORIALISTA ITALIANA: ENFOQUES CONCEPTUALES Y METODOLÓGICOS. REFLEXIONES DESDE LA PARTICIPACIÓN DE NIÑOS EN LA REPRESENTACIÓN DE LOS VALORES PATRIMONIALES DE LA CIUDAD DE SANTA LEOPOLDINA – ES / BRASIL

PATRICK GEDDES E A ESCOLA TERRITORIALISTA ITALIANA: APROXIMAÇÕES CONCEITUAIS E METODOLÓGICAS. REFLEXÕES A PARTIR DA PARTICIPAÇÃO DE CRIANÇAS NA REPRESENTAÇÃO DE VALORES PATRIMONIAIS DA CIDADE DE SANTA LEOPOLDINA – ES / BRASIL

#### RESUMEN

El estudio de Patrick Geddes sobre el niño en la ciudad, que se remonta a las Exhibiciones del Bienestar del Niño, así como el interés por los estudios de los orígenes históricos y geográficos de las ciudades desde fábulas vinculadas a las condiciones simples y naturales de la relación del hombre con el medio ambiente; por ejemplo, historias de cazador, minero, leñador, pastor, agricultor y pescador. La Escuela Territorialista Italiana, de Alberto Magnaghi, revisita de manera crítica y reflexiva el abordaje participativo precursor del pensamiento geddesiano, y desarrolla el método, la técnica y herramienta para la participación de los niños como actores-protagonistas en la representación y en el proyecto del territorio. De hecho, este artículo aborda la representación de los valores por los niños en sitio histórico, originalmente ocupado por inmigrantes de origen germánico, la ciudad de Santa Leopoldina, Espírito Santo, Brasil. Esto es hecho con diseños de referencia desarrollados por estudiantes de edades comprendidas entre 11 y 15 años, desarrollados individual y colectivamente. Los dibujos producidos por diferentes estrategias recreativas y educativas, revelan una mayor relación emocional con el ambiente paisajístico que con el ambiente urbano.

#### PALABRAS CLAVE

Geddes, Patrick, 1854-1932. Escuela Territorialista Italiana. Representación de valores. Participación de los niños. Santa Leopoldina – ES / Brasil.

#### RESUMO

O estudo de Patrick Geddes sobre a criança na cidade reporta às Mostras sobre o Bem-Estar da criança, bem como ao interesse por estudos acerca das origens históricas e geográficas das cidades, a partir de fábulas ligadas às condições simples e naturais da relação do homem com o meio ambiente, por exemplo, histórias de caçador, mineiro, lenhador, pastor, camponês e pescador. A Escola Territorialista Italiana, de Alberto Magnaghi, revisita de maneira crítica e reflexiva a abordagem participativa precursora do pensamento geddesiano e desenvolve método, técnica e instrumento para a participação de crianças como atores-protagonistas na representação e no projeto do território. Com efeito, este artigo discute a representação de valores por crianças em sítio histórico de valor patrimonial, originalmente ocupado por imigrantes de origem germânica, a cidade de Santa Leopoldina, no Estado do Espírito Santo, Brasil. Isso é feito tendo por referência desenhos elaborados por alunos de faixa etária entre 11 e 15 anos, desenvolvidos individual e coletivamente. Os desenhos, produzidos por diferentes estratégias lúdico-pedagógicas, revelam maior relação afetiva com o ambiente paisagístico do que com o ambiente urbano.

#### PALAVRAS-CHAVE

Geddes, Patrick, 1854-1932. Escola Territorialista Italiana. Representação de valores. Participação de crianças. Santa Leopoldina – ES/Brasil.

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## THE MODERNITY OF PATRICK GEDDES IN THE FIELD OF URBAN PLANNING

The relevance of the work of Patrick Geddes regarding the discussion of the double theme of *Citizen Participation and Representation of Values* is considered contemporary given the modernity of its proposals and actions on *urban heritage*, linked to the design addresses of conservation, enhancement, rehabilitation, and transformation, with active support of local stakeholders (MAGNAGHI; GIACOMOZZI, 2009; MAGNAGHI, 2010). From the creation of *Civics*, a branch of sociology that studies the city, to the setting up of the *Outlook Tower*, observatory and urban laboratory, the Geddesian thought weaves a correlation between thought and action, science and practice, sociology and moral, having as its motto *Social Survey to Social Service* (GEDDES, 1994). This article proposes a thematic focus on the participation of children, aiming at investigating the reinterpretation, by the Italian Territorialist School, of Geddes' proposition, with particular interest in the relationship between values and territory, by means of the technique of free-expression, applied for the children's drawings at Santa Leopoldina City, Espírito Santo state, Brazil.

Choay (2008, p. 11-12; my translation) classifies the Geddesian thought as *antropopoli* urbanism, identifying it as a "second-level" theoretical and critical line, corresponding to the culturalist model of "spatial projection, of images, of the future city". In line with Marcel Poète, Lewis Mumford, Jane Jacobs, Leonard Duhl, and Kevin Lynch, Geddes seeks and integrates the urban issue into the global context, with references provided by descriptive anthropology. Its empirical character and variety of theoretical and methodological angles allow the identification of three trends corresponding to three methodological approaches. Geddes is present in the *Human Settlement as Temporal Root: Urbanism of Continuity* approach, and the affirmation of the need to reintegrate the concrete and complete man into the urban planning process, valuing history and heritage. He proposes an urban design based on analytical survey of a complex set of factors, with reference to the method of *sociological surveys*.

Geddes (1994, p. 117-118) stresses that the real city is that ruled by the people, whose ideal relationship between citizen and self-government dates back to the ancient Greek Acropolis. He explains that the planning schemes in place in early 20<sup>th</sup> century are unilateral and geared mainly at industrial development, with insufficient propositions of public spaces, considered essential for human survival and for the participation of the local community. His study of the child in the city goes back to the *Child Welfare Exhibitions*, as well as his interest in studies on historical and geographical origins of cities from the perspective of children, linked to the simple and natural conditions of man's relationship with the environment, which narrate stories of hunters, shepherds, miners, lumberjacks, farmers, and fishermen. Operationally, he suggests the conduction of an *Urban Survey* as a form of obtaining systematic knowledge of the city's history and development, supported by urban theory and sociological interpretation. The *Edinburgh Survey* conducted in the *Outlook Tower* and presented at the *Urban Planning*

*Congress: Reports and Objectives*, held in Ghent, in 1913, is a pilot project for the analysis of cities, both large and small, in which “[...] architecture [...] is no more than the changing expression of this great process, and its planning is no more than a documentation, or better, it is the palimpsest” (GEDDES, 1994, p. 118; my translation). He also advocates the creation of the *Outlook Tower*, functioning as an observatory and urban laboratory, institution needed in every city, weaving a correlation between thought and action, science and practice, sociology and morals, with the motto: *Social Survey to Social Service* (GEDDES 1994, p. 131). In order to avoid stagnation or the decline of cities, Geddes mentions (1994, p. 143) the cases of Edinburgh and Dundee, respectively, and Dublin, explaining that it is only possible to propose a diagnosis with the appropriate treatment, through previous survey and study of the causes and effects in each case.

By defining the purpose of urban planning as to meet the needs of life in the city, the city’s growth adjustment, and to foster its progress, Geddes not only places the understanding of the city as a goal to be achieved, as states the fundamental role of education in urban planning, as regards to technical training provided to planners, and the instruction to the population. He suggests a *School of Civics*:

[...] with its observatory and survey museum, its design and commercial offices, it should become a common institution in each city, with its specialized library, in full development, with many users, all just like a true powerhouse of urban thought and enterprise (GEDDES, 1994; p. 143-144; my translation).

Geddes also reflects on the concept of *Urban Center*, beyond a cluster of monuments, a vital locus of interaction between thought and action. This understanding is based on studies related to the classical cities and large capitals; to race, population, and children’s welfare; to geographical and historical origins. In the same way, he stresses the importance of research on *Science of the Cities*, in order to review past urban activities, present needs, and future possibilities; pointing to design paths that could reunite vision with execution, in the art of the past of building cities – in which citizenship is acted out - as a way to orchestrate social feeling and rational design.

To understand the memory and the spirit of the city, its strengths and weaknesses, its place in the history of civilization, we must experience it, because *when in Rome, do as the Romans do*; “let us feel at home, integrated in the life and activities typical of the city, in the cultural and social movements of this place that welcomes us for a little bit of time.” The urban planner should share life and work within the community, in order to carry out an assessment and discern the social, economic and cultural potentials of the place, because “scientific detachment is only a posture, though at times needed; our purpose cannot be achieved without active participation in the life of the citizens” (GEDDES, 1994, p. 148; my translation).

However, according to Geddes, the student and the urbanist have a need of deep experiences, including in the educational, political and social fields, because “(...) there is much to be said about the value of foundations, of the co-workers, of the people and the organizations they influence” (1994, p. 149;

my translation). Armed with this finding and the comparative study of cities in Europe and the US, he developed a method of urban research and study, endowed with a system of practice and application, exemplified in old Edinburgh's *Outlook Tower*, which is an ancient and imposing building, from which one can see the city and much of its region, and thus gives each visitor the experience of the educational value of the synoptic view. He praises, also, the aesthetic and emotional approach of the top-of-the-tower vision of the city, by each visitor, mainly by children, because, once there can be no geographical study that is apart from love and the beauty of nature, the cognitive-perceptual capacity of children can be just what is missing for the student and the urbanist (GEDDES, 1994, p. 150).

As for school research on teaching methods and the significance of surveys in education and philosophy, Geddes reveals that the richest choice of hope and possibilities lies in working with the elementary school. He suggests that in the movement of studying the city and nature, through the participation of children, it is possible to correlate and vitalize dynamic and relevant investigations, such as the experiences of school travels and scouting. He cites *Valentine Bell's* experiment, which took place in a primary school in the council of Lambeth, where the students assist with a survey in the neighborhood, whose impact caused admiration and motivation to teachers and other schools in Europe, especially in Britain, constituting a precursor of movements such as *Know your City*. The modernity of Geddes discourse (1994, p. 156) is reaffirmed as he advocates the existence of vital energies emerging from the enthusiasm for the city, mainly present in workers, artists, women, and children.

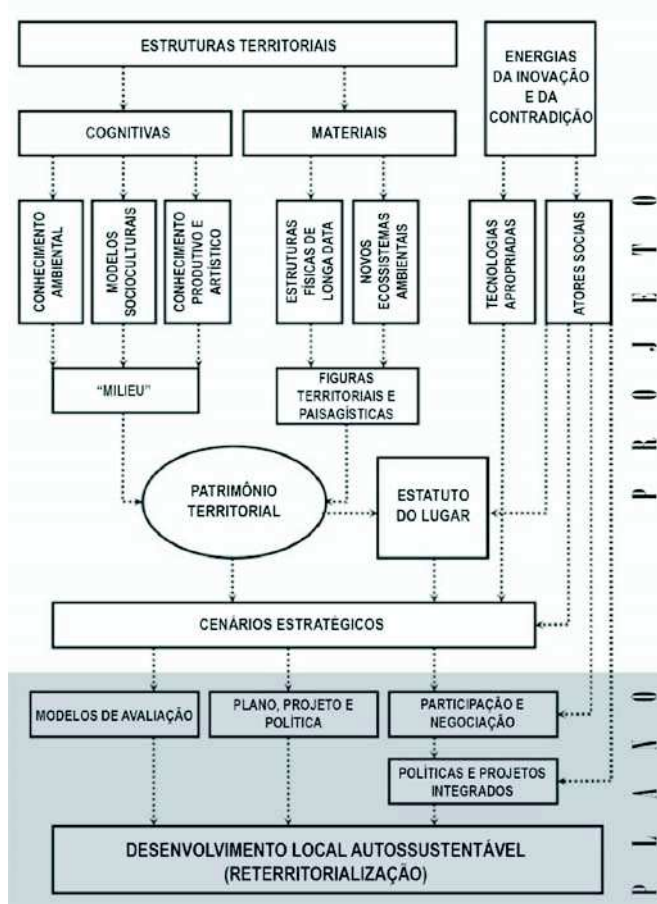
Finally, beyond environmental and participatory issues, Geddes multidisciplinary approach stands out, denoting the need to break barriers between the disciplines involved in urban planning, contributing to the development of a basic principle of unity, approach which is reclaimed, discussed, and expanded by the Italian Territorialist School. The latter involves, since its formation, several laboratories, and conducts research and projects by means of disciplinary integration. Associated with the school, there is the Territorialist Society, which goes beyond Italy and focuses on studies of the territory, offering sustainable development proposals. It is dedicated to training specialists in the science of the territory and in participatory projects, including those of primary schools.

## URBAN PLANNING ACCORDING TO THE ITALIAN TERRITORIALIST SCHOOL

In late 20<sup>th</sup> century, Alberto Magnaghi, Italian urbanist, founds the Italian Territorialist School in order to discuss the issue of the Italian territory from a multidisciplinary perspective. This school allows the formation of a methodological constellation named Italian territorialist (endogenous) or anthropocentric/biocentric (comprehensive) approach, structured in five movements of research and intervention, by means of observation and representation of the identity, as a support to territory planning and

management (MAGNAGHI, 2001, 2005, 2007, 2010). The endogenous approach offers design addresses of conservation, valuation, requalification, and transformation to territorial and landscape figures inserted in cycles of territorialization, deterritorialization, and reterritorialization, both long-term or not. Now, the comprehensive approach is configured from a set of theoretical and scientific methods, techniques and instruments aimed at safeguarding and developing territorial heritage (MARGUCCIO, 2009).

According to Magnaghi (2005, p. 7-8) the *return of the place* in the design practice occurs in five movements: 1) definition, at the theoretical and methodological level, of the meaning of the concept of *self-sustainable local development*; 2) definition of the methodology and technique for the representation of the identity of a place, organized in the form of an atlas of territorial heritage; 3) development of the statute of places (rules for transformation); 4) development of strategic visions for future (scenarios) based on valuation of territorial heritage, as defined in the statute of places; and 5) redefinition of tools and planning process based on reviewing of the first four movements. The five movements are summarized in the analytical design-process scheme for the self-sustainable local development (Figure 1).



As explained by Magnaghi (2005, p. 8), the scheme distinguishes the planning process in planning, design, and policy stages, in order to lead to a reterritorialization directed at self-sustainable local development. The planning is related to the methodology, the design, to the strategic scenario, and policies, to the creation of the statute of places. Indeed, the process is self-structured, based on the recognition of heritage values and on the creation of statutory rules by the local community, in order to raise the awareness of their ability to design their own future. All five movements for the *return of the place* in the design project are characterized by an axiom: local community, subjects bearer of self-sustainability and self-government.

Figure 1: Methodological Process for a Local Self-Sustainable Development. Translation. Fonte: MAGNAGHI, 2005.



The territory is not a donkey; it is not a beast of burden, a mere passive instrument, and support for the exploitation by human activities. It is the result of a synergistic relationship between environmental, anthropic and socioeconomic dimensions, which requires a constant dialogue, an active report based on the understanding that the territory is a living being of high complexity (MAGNAGHI, 2010, p. 62). With regard to this synergistic relationship, the territorialists propose “the creation of a local society”, which means to guide and encourage the community about their share of responsibility for the city’s conservation and transformation, important information for the understanding of the participation in the territory’s management. That is to say that the main goal of the Territorialist project, “local self-sustainable development”, founded on the recognition and appreciation of local identity, must first be the “development of a local society”, which means they should recover their ability to give form to their own living environment and socio-economic and cultural relations.

Magnaghi (2010), Choay (2008) and Geddes (1904) are in line with regard to the concept of heritage, which includes the concept of continuity of time and history, and which radically excludes the idea of ??conservation as repetition, adopting the principle of reinterpretation and transformation. This conception proves the modernity of Geddesian thought, this time related to addressing the heritage dimension of urban and territorial planning, in the Territorialist project, related to the strategic scenario and its four possible addresses that can be correlated: conservation, valuation, requalification, and transformation (MAGNAGHI; GIACOMOZZI, 2009).

### EDUCATION FOR PARTICIPATION IN URBAN PLANNING

In order to illustrate the interest of Geddes in children, Ferraro (1998, p. 245) noted interesting influence from Nietzsche seen in his passage through India, between 1914 and 1924, by means of the acceptance of a Zarathustrian invitation to be: childlike, open to the wonders of the world, exalting the *will to power*, with the energy of interpretation and action, *where there is a will, there is the way*. Ferraro (1998, p. 257) completes the analysis of what he calls Geddesian anthropology, in its vital aspect, according to which learning takes place living, working, drawing, singing, and dancing, since childhood, culminating in happy children, cheerful youth, and effective men, Dionysian and Apollonian archetypes. Finally, in the letters he sent to his daughter Norah, Geddes points out that he start seeking to look at things as children do, and freeing himself from the male division of labor, mechanical and institutional, striving to think *re-synthetically* (FERRARO, 1998, p. 103).

Revisited, Geddes has been named the father of environmental education. In 1904, he pedagogically explains that children in touch with the reality of their environment have not only a better chance to learn, but also develop creative attitudes towards the world. Faced with this, he expresses his concern about the effects of urbanization resulting from industrial revolution, and its consequences on the natural environment (DIAS, 2002). The term environmental education is internationally acknowledged in the

Environmental Education Conference in Tbilisi, 1977, as well as from statements by UNESCO. Authors of last decade show the currentness of Geddesian pedagogical thought: Kindel (2006), as he states that current education is a fragmented learning model, which does not provide a link between local environment and the global context; and Lindner (2000), as he introduces environmental education as a new philosophy of life, of ecological vision, linked to the development of relations of knowledge between man and the natural environment.

Of the conceptual and methodological constellation of Geddes ideas, revived and attested in the modernity by the Italian Territorialist School; and of the search for a self-sustainable local development (MAGNAGHI, 2010), we can highlight: 1) the environmental issue, mentioned in particular by the *bio-anthropocentric* definition of the *Valley section*, which proposes a historical co-evolutionary relationship between environmental, economic and the anthropic dimensions, and which is the conceptualization of the territorialists of urban bioregion (MAGNAGHI, 2014, p. 8); and 2) the issue of participation, expanded to education and pedagogy, through establishing a conceptual dialectic as the way of Geddesian thinking, in regards to the proposition of a process of cultural transformation of the inhabitants, of the territorial heritage, that is to say, the value of common goods (material and relational), as essential elements for the reproduction of individual and collective, biological and cultural life.

The concept of participation is defined by Pecoriello and Rubino (2011) as a tool for overcoming the political crisis and to build consensus, and also for the empowerment of the local community through the construction of shared knowledge among experts and residents on territory heritage values, defined as "place consciousness." The dialogue of the Territorialist School with Geddes refers to the participation of children in the city and the territory's representation and design, as key actors for the recognition of identity and cultural transformation. The authors reveal the difficulty in combining learning and planning processes due to their different temporalities and languages, and they face the issue using tools such as the *community map*, where development scenarios are constructed, engaging the inhabitants in organizing actions, and with the involvement of children.

The theme and methodology of participation in urban space production and design processes (PECORIELLO, 2002; PECORIELLO; PABA, 2006) are based on the creation of a participatory design lab with children in public schools, in order to construct a *community map*, with the following goals: 1) improvement of the public space: home-to-school paths execution, appropriation of green spaces, appropriation of the street for entertainment, schoolyard requalification project, and criticism of architectural and urban barriers; 2) enhancement of environmental cognition: school programs that encourage environmental walks, iconography study (cartography, maps, and photos), interviews, the construction of narratives, and the drawing of mental maps; 3) participation in public life: conducting interviews with political leaders, and participating in community councils; 4) to promote training and the transmission of knowledge on the use of the city by children: conducting training and information courses, competitions, and an awareness campaign.



## METHODOLOGY REPRESENTATION OF VALUES BY CHILDREN

In addition to Geddes, other authors have influenced the methodology by Anna Lisa Pecoriello of representation of the territory by children, such as Piaget (1976), with the concept of the child's personality development and the identification of a cognition model that corresponds to that of an adult, based on skills such as logical and mathematical ability, analyzed through drawings of representation of space. Pecoriello alerts, however, for the so-called Piagetian pessimism, which underestimates the child's ability to interact, experience, and learn, as he can be so mistaken when he classifies the child as a subject who "is not still" but "yet to become". The basic argument of the work of Pecoriello and Paba (2006, p. 26-27) is in defense of the child as a subject and relatively autonomous social actor, a *human being*, not a *human becoming*, nor a nearly- adult or a future citizen; on the contrary, recent innovative research and practices reveal children as social actors in the full sense, protagonists of the city life, people with specific demands, possessing a specific, diverse and irreducible vision, compared with that of adults, which justifies the need to negotiate a fair distribution of resources, time and space, freedom and responsibilities.

Magnaghi (2005, p. 10) points out that the motivation for studying identity representation is to strengthen the hypothesis of production of wealth by the sustainable valuation of the territorial heritage of each place. Therefore we must understand the Territorialist conception of territorial heritage, defined as a system of synergistic relationships between quality and peculiarities of the physical environment (climate, flora, fauna, geomorphological and hydro morphological aspects), the built environment (longtime structure and infrastructure, techniques and materials, urban and territorial morphology, landscape features), and the anthropic environment (socio-cultural models, linguistic peculiarities, social environment characteristics). The treatment of territorial heritage requires the use of values ??as resources, demands the construction of interpretive cognitive frameworks of the three aspects of heritage in an integrated manner, in the mapping format.

The reasoning adopted to defend the inclusion of children in the territory's representation phase, according to Poli (2006, p. 81), arises from the inadequate use of technical representation as the only resource to get information on the perception and desires of the local community regarding their environment, particularly as far as children are concerned. Thus, the interest in the spatial perception of children is justifiable as an opportunity to add a sensitive and emotional view of urban design, mainly with regards to the relationship of identity and belonging to a place.

Children's drawing is a communication mode through which the child reveals his/her inner world, a complex world that is not clearly organized, onto which converge interiority, environmental relationship, dream, experience, difficulties, socializing levels. Early on, the child perceives the presence of an external world and seeks to take appropriation of it through games, and in a lasting and empirically documentable way, through drawing (POLI, 2006, p. 81). Like any such representation, child's drawings are not an objective record of reality, but an interpretation to which the child

strongly relates. The drawing is an efficient means between the fantastic dimension and reality, so if properly deciphered, images allow to penetrate the complex world of children. The symbolic aspects, along with the formal and structural ones, such as the positioning of the sheet and the figure, color, size of the objects represented, the modulation of details, are important indicators to understand the message contained in the drawing.

The adult representation usually takes place through two horizons. One is childlike (the man, the tree, and the house), and the second is geometric and objective, of the dimension of the topographic map (map of routes with roads and landmarks, often drawn in a plan). Initially, it is an egocentric reference system, wherein the body is the movement's guiding compass. Then, it undergoes several states: allocentric reference system, fixed reference system, and coordinate reference system, which use external references to define the spatial dimension (POLI, 2006, p. 84).

As for the evolutionary phases of the child, there are many modes to categorize representation. The scribble, between 2 to 3 years, has an unintentional nature, no intent to reproduce reality; the perspective, between 9 and 14 years old, is a deliberate attempt to reproduce the surrounding world, through more sophisticated techniques. Above all, children tend to produce two-dimensional images where objects are aligned on a sheet of paper, with the intention of classifying them rather than describing, thus emphasizing the importance of the object in itself, and not so much in its relationship with the surroundings. Among the possibilities of techniques for the participation of children in the planning process, it is understood that drawing is one of the ideal tools to decode their spatial perception. The justification for using drawing as a tool is that many studies have shown that it is the most suitable tool to obtain information from children, much more than any other "cold" methods, such as questionnaire, interview, or yet reports (POLI, 2006, p. 83-84).

For Poli (2006, p. 86), some studies have shown that when kids age 06 to 11 years describe their memory of their home-school route, it is more accurate and rich in information if reproduced through free drawing, instead of through verbal resources or recognition of an aerial photo or map. For the use of a topographic map or aerial photo, as a game, might create interference in the perception of the place by the small ones, it refrains their quirky sense of spatial orientation, characterized by their immersion in the place. The cartographic production, framed by vision only, means an objective and cold-hearted spectator, where the visible landscape is analyzed and evaluated scientifically, and not emotionally. The simple topographic map is then seen as a reductive instrument, unable to cover the multidimensionality of space.

In this context, the genesis of territory's representation is then revealed - historical cartography -, which communicates an egocentric view of the space in which the body, with all its senses, plays an important role in the perception and restitution of the surrounding context. The representation is born of a continuous swaying between subjectivity and objectivity; therefore, by analogy, some historical charts recall children's drawings. It is a drawing born of recollection, of memory, which is laid on the sheet following a scan of the place, keeping the orientation of the body moving in space without

resorting to external geographical references. It is a method that manifests the subjective attribution of values, through dimension - greater or lower - and with certain independence from geometrical forms (POLI, 2006, p. 87).

## REPRESENTATION OF THE TERRITORIAL HERITAGE OF SANTA LEOPOLDINA BY CHILDREN

Regarding the object of study (SERRA, 2006), Geddes advocates the idea of ??research being conducted in smaller cities, which are in the process of growth, as a *locus* to assist the understanding of larger cities; for example, in the English context, Birmingham and London, in Brazil, Santa Leopoldina and Victoria. This conception is present in regards to *civics*, i.e., the quality is not entirely a direct function of quantity. Still, from the knowledge of larger cities, it is possible to rethink the growth of the smaller, from a unified urban survey method. The territorialist school updates Geddes' appreciation of the local context, proposing the "return of the place", through environmental, territorial and socio-economic heritage in their local dimensions, and the empowerment of the local community, as pillars for a self-sustainable local development project (MAGNAGHI, 2010).

The city of Santa Leopoldina comprises a heritage site of historical interest, characterized by the presence of German, Pomeranians, Austrian, Dutch, Swiss immigrants who have arrived in the city around mid-19th century in order to occupy the interior of the state of Espírito Santo, and to work in the coffee production (ANDRADE, 2012; ANDRADE, 2012a).

The method for research in Architecture and Urbanism is found in Serra (2006), where lies the methodological corpus needed to characterize *model object* and *concrete object*. The model object is about choosing a previous, consolidated experience, which allows for critical analysis and definition of parameters to be used in the empirical approach. The concrete object is about choosing an object for an empirical approach in order to implement and/or adapt the model method in the experiment. Indeed, the model are Pecoriello experiments (PECORIELLO, 2002; PECORIELLO; PABA, 2006); and the concrete is the empirical approach<sup>1</sup> developed with children, 11 years old on average, at the Alice Holzmeister School, in the city of Santa Leopoldina, Espírito Santo state, Brazil.

Among the techniques proposed by Pecoriello (2002), in the thematic focus of this article, the following stand out: 1) *going to school by himself*: ??exercise in which the students of a school make drawings of the home-school route, and then they indicate on the cadastral map, with string and nail, enriched with drawings and photographs, the route of their respective homes to school in order to group meeting points, and choose safe and enjoyable ways for all children to walk to school independently; 2) *ecological oasis*: activity in which the children of a school participate in a block recovery project, they initially analyze the built environment and the quality of existing housing, its history, typological evolution, and materials, which results in the production of a map of the representation of the intervention in the area.

<sup>1</sup> Este experimento é desenvolvido no âmbito de trabalho de dissertação de mestrado "Mapeando o Patrimônio Territorial: método e técnica de representação de valores em Santa Leopoldina/ES - Brasil", num primeiro momento em agosto de 2014 e num segundo momento em maio de 2015.

At the end of the development of the work with the children, a collective emotional map is produced, the result of a course of experimentation with several techniques which developed the capacity of observation and artistic rendering, unintentional, not manipulated, not mimetic, but interpretative. It is worth mentioning that some children may have difficulties in drawing; thus, to support the production of the drawings, we use the technique of narrative and collective reflection in order to bring out significant aspects of the place.

The chosen grade for the experimental work the sixth grade, precisely the year in which many students from rural centers choose to move to the city of Santa Leopoldina, and join Alice Holzmeister School in order to continue their studies. The latter also welcomes students of the very urban center, but mainly from those closest rural centers such as *Suíça* and *Luxemburgo*. The intention is precisely to observe the dialectics between these students from different places, in order to identify if these social actors are linked by bonds of heritage, affection or if there is rupture with the local identity. The idea is to establish closer ties with the children of Santa Leopoldina through the application and adjustment of the methodology and techniques of territorialist approach (PECORIELLO, 2002; PECORIELLO; PABA, 2006; POLI, 2006), in a reflection effort to apply it to the concrete objects of the experiment.

As a starting point, two techniques, decoded from studies conducted in Bologna (POLI, 2006), were chosen: the home-school route drawing and the collective mental map. After the completion of the first technique, it is possible to structure the assembly of the second technique in order to observe the number of repetition of elements in the children's drawings.

Then, the interpretation of the drawings produced using the above mentioned techniques is performed with the methodological basis for decoding children's drawings indicated by Stern (1962 apud COLA, 2003, p. 50), which consists of an analytical approach to formal characteristics, such as 1) shape and size of drawings; 2) strength or lightness of application of the material on the surface; 3) monochrome or polychrome drawing - dominant shades or different colors; 4) space structure and organization. Through the identification and interpretation of these formal characteristics, it is possible to achieve a hierarchical synthesis of heritage values ??in the urban center of Santa Leopoldina.

The technique of free expression in the "home-school route drawing" was employed (Figure 2a) to identify the architectural, urban and landscape elements that are references for the children in their relationship with the city as well as possible problems, in order to pinpoint the major components of their spatial perception. Most drawings stand out with regard to environmental heritage: the presence of Santa Maria da Vitória River and its tributaries, and the vegetation of the surroundings; and, with respect to territorial heritage: churches and commercial establishments, public spaces for leisure, their own homes, the Alice Holzmeister Scholl.

Specifically, one drawing concerns the "problems of my city", such as the recurrent floods and the difficulty in leaving home and going to school due to the heavy rains and the rugged terrain of the road in which the school bus travels (Figure 2b). In general, the drawings of Figure 2 highlight the

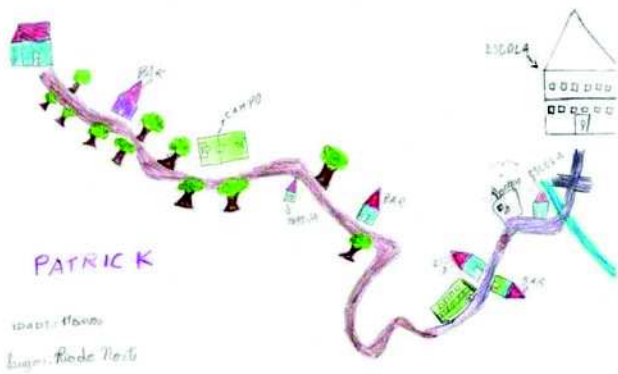


Figure 2a - 11 years

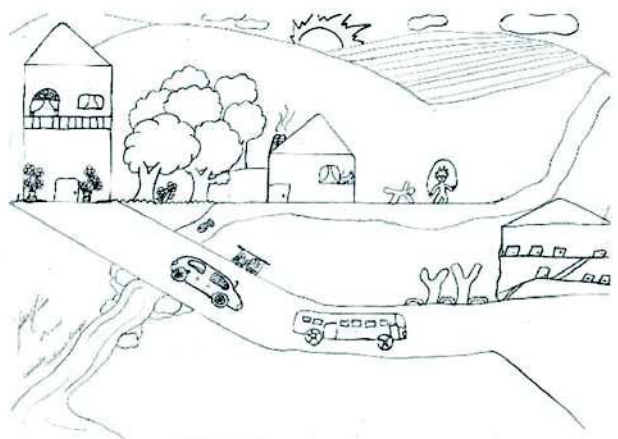


Figure 2b - 11 years



Figure 2c - 12 years



Figure 2d - 12 years

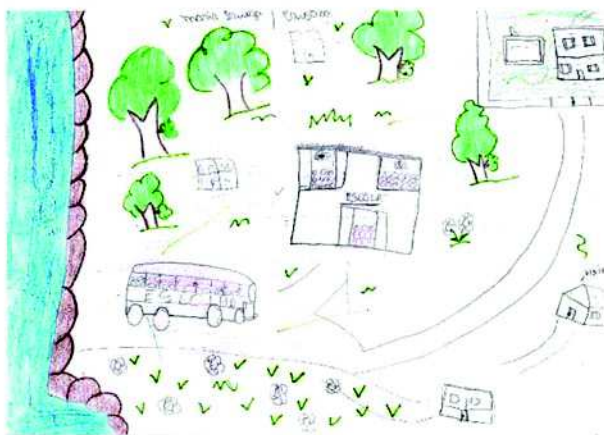


Figure 2e - 13 years

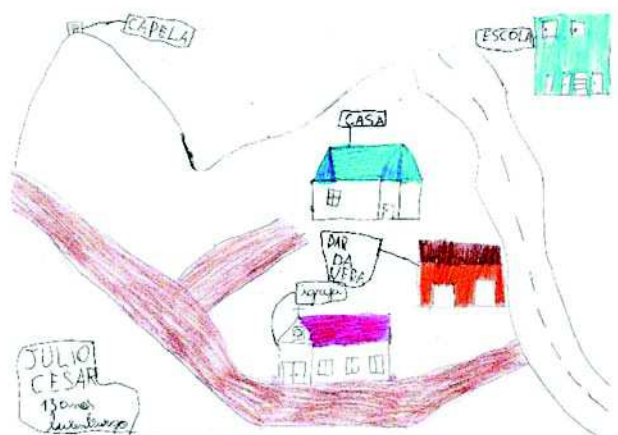


Figure 2f - 13 years

Figure 2: Route from home to school.  
Source: ANDRADE, 2015.



importance that children give to the environmental heritage; the concern about the river pollution and the poor pruning of trees; the presence of religion, spatialized in the different buildings that emanates the Catholic and Protestant religious traditions, brought by European immigrants, mainly Germanic; shops, as reference points along the route from home to school, since there are not many buildings on the way from home, located in rural areas, to school, sited in the urban center; and, finally, the presence of open spaces for recreation, such as the square in the lower part of the river, close to the school, appropriated as a playground and soccer field, as well as for sports games, which reveals the need to take ownership of places that do not belong to the school for recreation and exercise.

With regard to the emotional collective map (Figure 3), meeting the criteria for analysis of formal characteristics of the children's drawing, such as: 1) shape and size of drawings: a search for geometric shapes is perceived, with the use of the rule for certain buildings, such as the Hospital, and leisure areas, such as the soccer field. Sinuosity is perceived beyond the urban center, in the routes without paving, and in the tributaries of Santa Maria River. Geometry and sinuosity are indicators to be digitized in the QGIS software environment, emphasizing the stream that borders the children's school, identified as the most important value; 2) the strength and lightness of the use of material on the surface: the predominance of strength in the drawing of forms, mainly in the road network, and the courts; 3) Monochrome or polychrome drawing - dominant shades or different colors: there is a predominance of polychrome, and the blue as dominant color of the river's tributaries, as well as of the church and the hospital, whose true colors are not blue; 4) structure and organization of space: in the space structured by the children, there is the presence of the old houses of Santa Leopoldina, in a view which is organized around the road network and the waterways.

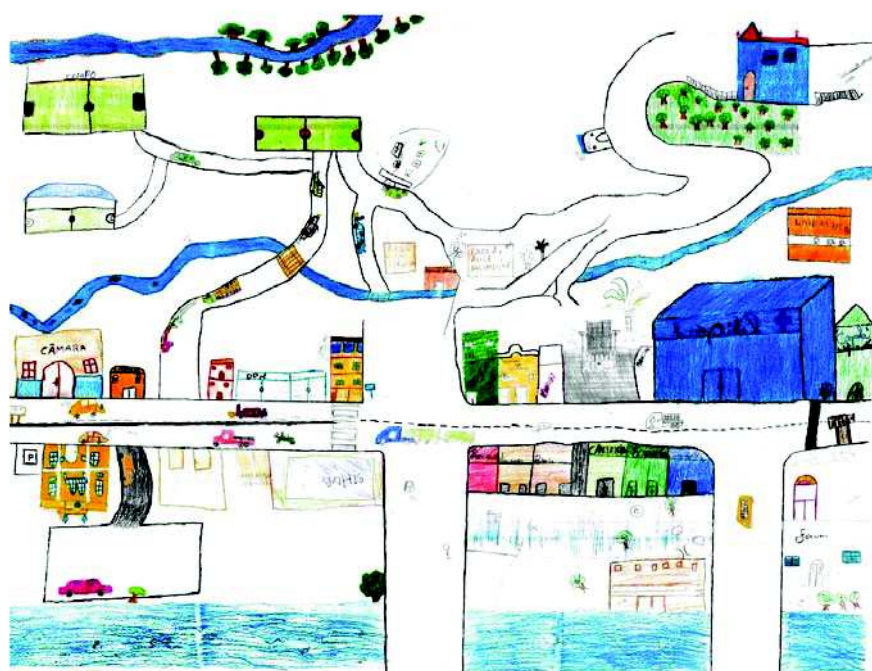


Figure 3: Collective Emotional Map.  
Source: ANDRADE, 2015.



We can observe the children's relationship of affection for the landscape's natural elements, such as the Santa Maria da Vitória River and its tributaries, and for the public spaces for entertainment, identified in the soccer playing fields. Besides the commercial buildings, the following buildings stand out architecturally-wise: a) Sagrada Família church, as a "landmark in the landscape," according to one student, nonetheless its facade was painted blue, when the original color is white; b) The city of Santa Leopoldina, designed in its original yellow and white colors, including the wealth of windows and ornaments' detailing; c) The hospital is disproportionately drawn in relation to neighboring buildings, and painted in the non-original blue color (its actual color is light green), both scale and color revealing the importance of this building in the children's memory; d) Museu do Colono (Settler Museum), with correct scale and color including the relation of the top facade with the building's original ornament, it used to be the former residence of the family Holzmeister, Austrian immigrants that arrived at Santa Leopoldina in mid-19th century; e) The forum, despite its location error, it is remembered because of the historical importance of the building and its use in the city's dynamics; f) House of Representatives, drawn in detail and color refinement; g) Alice Holzmeister School, previously drawn as reference to start the drawings, in the center of the A0-size sheet of paper; h) Staircase, drawn with a ruler for formal precision, the proportion of the steps and the reference made to the original ornaments stand out; i) Chapel, drawn in a color closer to the real color, in light green, next to the Hospital; j) Department of Military Policy (DPM), with blue outline and fill in light gray, in reference to the blue color of some architectural details of the building.

In short, the application of Pecoriello's methodology (PECORIELLO, 2002; PECORIELLO; PABA, 2006) allows an approach to the teaching staff of Alice Holzmeister School and the conduction of the work of application of the drawing techniques, whose representation, both in individual and the collective drawings, is decoded as a relationship of environmental heritage valuation, and of criticism of the urban space of Santa Leopoldina city. Indicators point to the importance of preservation and the cleaning of the river, the conservation of native vegetation and trees in the urban center, social interaction arising from the churches, criticism of the aesthetic and of the limitation of public spaces for recreation, but mainly the revelation of the issue of transportation in the urban center, due to vehicle traffic and noise, which are perceived as architectural and urban barriers. Nevertheless, knowledge and relationship of identity with the history of the city was verified, which can be traced to the occupation by immigrants, mostly Germans, in the mid-19<sup>th</sup> century.

## CHILDREN AND THE CITY'S HERITAGE VALUES

Patrick Geddes was a precursor of theoretical nexus between the inclusion of children as actors to be heard, with demands to be considered, of a ludic origin of dream and fantasy, and the realization of a utopia called *Eutopia* (GEDDES, 1994). The positive quality of the dream to be inserted in urban planning, generated from the participatory processes of children, is enriched by their freedom from economic and technical values. The Geddesian ideas of the turn of the 19<sup>th</sup> to the 20<sup>th</sup> century confronted with positivist science,

industrial development, and the genesis of Modern Thought, at the forefront searching to reposition man in the centrality of urban planning according to an anthropological approach, and man's relationship with the environment, on the other hand, according to an educational and environmental approach. Therefore, Geddes' discourse is in favor, not of an abstract man, coming from the functional urbanism, and consolidated by the Charter of Athens (1933), but of a possible man, a eutopic man, armed with his ability to participate in the planning of the city.

Geddes thinking were in the vanguard of his time, and up to today his thought can be considered modern, especially as it was recognized and incorporated by the Territorialist School and operated in a methodological corpus with regard to participatory approach, establishing procedures, techniques and tools for the children's involvement in the city's representation and design. The experiments proposed by Pecoriello with the children of the city of Florence have proved to be effective with respect to this search, and for facing the issue of participatory design through drawing techniques and modes of intervention in the city capable of being interpreted as design indicators and subsidies. The regard of the child as citizen, with the right to the city, its protagonism, desire, dream, and peculiar perspective, allowed the creation of a *Manifest of the Child City* (PECORIELLO; PABA, 2006), which dialogues with the *Child Welfare Exhibitions* of Patrick Geddes.

The interpretation of the individual drawings of the experiment at Alice Hozmeister School in Santa Leopoldina reveals a contrast between the presentation of a positive outlook in relation to environmental and urban heritage, and a critical perspective of the city's problems. Also, the product of this experiment can be categorized as a theoretical-methodological approach, or as a design approach. The first approach questions the extent to which the drawings reveal the childhood experience in the city, and the second questions the extent to which the drawings reveal a particular understanding, useful for design interventions. Indeed, most individual drawings are in tune with the positive presentation, just like Patrick's drawing, emphasizing the child's relationship with the environmental values, a design indicator for preservation of the environmental heritage dimension; while a minority is in tune with Natalia's critical exposure of the problems present today in the city, a design indicator for the need of transformation of the urban heritage dimension.

The construction of the collective emotional map also reveals a contrast between a positive outlook and a critical view, observed in the children's drawing as divided into two areas, one referring to the landscape environment, and the other, to the urban environment. In the first, emphasis is given to the river, the vegetation, and the recreational spaces; and in the second, there is criticism about the lack of public spaces, the issue of going from one place to another in the city, coupled with small, medium and large traffic, noise, and pollution. There is, however, indication of the recognition of history, in the buildings' layout and in the presence of architectural ornaments recalling the neo-colonial and eclectic styles. As expressed in the ideas of Geddes and in his theory about the child's relationship with stories and fables, both types of drawings show a stronger emotional relationship with the broadest landscape environment than with the urban environment, i.e. a greater relationship with nature than with history, culture, and the local

economy, expressed or not in the architecture and urban form of the city ??of Santa Leopoldina.

The empirical approach highlights the importance of research carried out within the realm of the local community participation, both in representation and in designing the city; and it highlights the character of innovation, as it experiences, in the context of a Brazilian city, in the field of architecture and urbanism, a methodology of approaching children which was created in Italy, of a territorialist perspective, as a territory analytical and design tool, not yet applied in Brazil. The intuitive nature of the interpretation of the children's drawings stands out, as it was directed by the optics of specialists. The unfolding potential of this research directs to: the expansion of the quantitative approach of the participatory experiment to other actors indicated by Geddes and the territorialists in the contemporary discussion of the insurgent city (PABA, 2002), and its contradictions and conflicts; and the technical and methodological expansion and deepening, beyond the drawings, aiming at developing tools to encourage participation and the direct intervention of the local community in the city, either through the virtual approach of *Volunteered Geographic Information* (VGI) (MOURA *et al.*, 2014), or through a real nearing through an Integrated Design Laboratory (POLI, 2006).

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