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# A Starting Point: Children as Spatial Citizens

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## Abstract

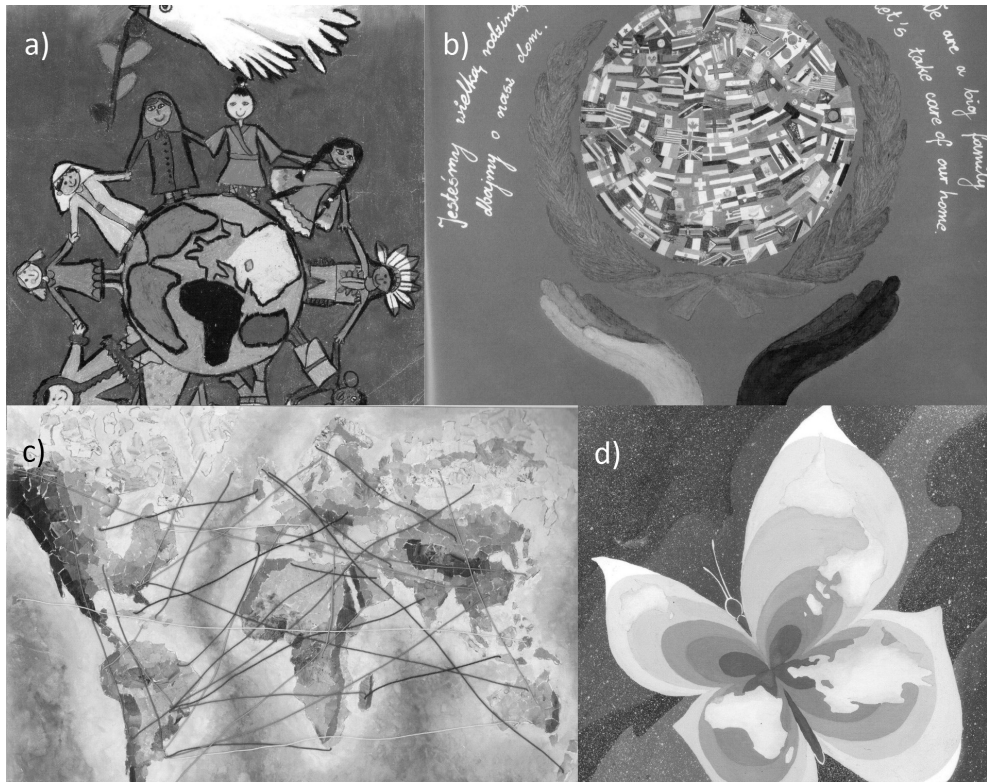
The Spatial Citizenship approach targets active and reflexive usage of geomedial, in order to enable people to participate in spatial decision-making processes, and to gain maturity when acting in everyday spaces. Originally, it was constituted to form a counterweight to a workforce-dominated GIS education that neither considered the needs and abilities of lay people in everyday spatially related situations, nor embraced the chances of an upcoming neogeography. Therefore, Spatial Citizenship helps to shift the geomedial production focus to citizens' everyday action in society. Still, it focuses on secondary and postsecondary education. This paper's aim is to explore whether children can become spatial citizens, and/or whether Spatial Citizenship can possibly become an integral part of daily life when growing up, if introduced at an early age. This paper's methodology ranges from literature analysis and theoretical research to an explorative experiment.

**Key words:** Spatial Citizenship, children, children's geographies, citizenship, mapping

## 1 Introduction: Children's Cartography – Adults' Discourses?

The Barbara Petchenik Children's Map Competition (<http://children.library.carleton.ca/>) is an international painting competition for school children until the age of 15, named after the former vice-president of the International Cartographic Association (ICA), who place special scientific attention on children's maps and children's mapping. While the theme of each round is relatively widely formulated (e.g. "Living in a globalized world"), the competition addresses the children's needs to externalize and communicate their thoughts and visions in a highly creative and artisanal process. As the given themes indicate, most resulting maps display world maps and content of global range. The playful approach to handle, modify, and break with cartographic conventions to be seen in many of the contributions may be caused by a certain absence of knowledge about cartography, but is also an innovative element of mapping that focuses on content and meaning instead of technicality and formality.

Nevertheless, despite this obviously subject-oriented approach, the content of some contributions seems astonishingly standardized. A rough analysis (Fig. 2) of the ESRI (2010) publication "Children map the world, Vol. 2", a best-of-selection of contributions from the years 2005 and 2007 under the theme "Many nations – one world", reveals a dominant discourse (category system emerged from the data, cf. GLASER & STRAUSS 2009): a) a world of understanding between different ethnicities, mostly represented in a traditional, archetypal lifestyle, partly assignable to differently colored 'cultural continents'.



**Fig. 1:** Selection from the Barbara Petchenik Children's Map Competition of the years 2005 and 2007 (ESRI 2010). Dominant discourses are represented by a) and b).

age (years)	a) stereotypes/ cult. contin.	b) nation-based	c) connections	d) symbolism/ illustration	e) beauty/ conflict	Sum
4 to 9	13	7	2	3	7	32
10 to 15	29	7	8	15	9	68

**Fig. 2:** Analysis of the ESRI (2010) selection of contributions to the Barbara Petchenik Childrens' Map Competition of the years 2005 and 2007<sup>1</sup>

Sometimes, b) the nation-oriented idea, represented by flags, predominates (as the competition's theme might suggest), if not already included in a). Thereby, global diversity is often thought in stereotypic categories throughout all age groups and regions of participants' residence. The undertone is often positive without problematization. At least some maps

<sup>1</sup> It must be emphasized that a *selection* of competition contributions is displayed in the book. The analysis can only categorize this selection and cannot make statements on the totality of contributions.

depict other representations, e.g. c) images of global connections, still being close to the theme, d) a symbolically loaded and/or merely ornamental illustration (see Fig. 1), and e) the topics of natural beauty or disaster and conflict.

It may be seen as a positive sign that children fulfil such a subjective task in a – at a first glance – rather less egocentric way. They focus on global well-being, equality, understanding, communication, and peace. However, with a closer look at all these discursive coincidences – and beside the fact that cultural stereotypes, even if shared with others, are indeed a highly subjective and in certain ways egocentric perspective (YU 2006) – it must be asked, whether it is the children's discourse that they draw in their maps, or whether it is rather the discourse taught by those who encourage the children to participate in the competition. Global diversity and global understanding are indeed educational discourses to be found in many curricula, school books, children books, and maps for children – with justice. Certainly, the way of teaching and representation often seems to be problematic, when it reproduces stereotypes in order to reduce complexity and conflict, producing the 'other' without changing perspectives (HÖHNE et al. 2005). These problematic patterns are reproduced in many of the competition's contributions. Therefore, it may be supposed that at least some of the participants probably try to anticipate the adults' expectations of what a responsible and well-educated child should know and think, and fulfil them to be successful in the competition. Models and studies on how students adapt their learning to their teachers' expectations (BRAUN 1976) indicate the adults' influence on children's products of communication.

Perhaps, a competition with a given theme and a clear artistic focus is not the right place to talk about children's empowerment in spatially related topics. However, mapping used to be and still is a powerful tool to influence societal discourses (CRAMPTON 2001; FISCHER 2014). Therefore, instead of encouraging (probably unconsciously) children to reproduce given discourses, children's map making could be, additionally or mainly, a starting point to give them the chance to represent their own visions, their interests, needs, and wishes. A diversity of viewpoints brought into the discussion by children may also be a starting point to more complex educational discourses. Therefore, encouraging children to bring in their own thoughts is never a plea against them longing for peace and understanding, or taking over responsibility. Furthermore, it is an approach to give room to complexity, contradictions, and innovation, and it opens themes for communication, negotiation, and change, that might contribute more to the children's education than slightly superficial, stereotypic and static worldviews.

Therefore, we have to open the space for children's geographies (in contrast to the geography of children that adults analyse from their viewpoint, cf. HART 1979). Spatial Citizenship (GRYL & JEKEL 2012) could be a chance to not only help to display and advocate for every citizen's geographies, but also for the children's. While this approach is still focused on secondary and post-secondary education, with its reference to easy-to-use lay cartography and its compatibility to support those who are less powerful in society (FERBER et al., in print), children might be another target group of Spatial Citizenship education. As children are indeed actors in everyday spaces (JANS 2004), this paper shall help to identify the potential of Spatial Citizenship education to empower children in spatial decision-making processes, and to raise them as spatial citizens used to take control of their leeway. After a very brief repetition of the basement of the Spatial Citizenship approach (2), literature on children's mapping abilities as a potential basis for the approach is revised (3). Chapter 4

contributes a selection of theoretical thoughts on the concept of citizenship concerning childhood, while chapter 5 illustrates an explorative experiment on the edge between freedom and responsibility in children's mapping and planning projects.

## 2 A Very Brief Outline of the Spatial Citizenship Approach

Spatial citizenship is the ability to use geomedial media actively and reflexively, in order to participate in spatial decision-making processes. In sum, the approach bases on the following considerations (cf. GRYL et al. 2010, GRYL & JEKEL 2012):

- 1) The idea that the fundamental basis of participation are communication, sharing, and negotiation of interests and visions (EACEA 2012);
- 2) the fact, that we now live in a geomedial society (due to well-known technological and societal trends in the communication and information sector such as global positioning and ubiquitous computing) that makes geomedial media an omnipresent and relatively easy-to-use instrument of information and communication (FISCHER 2014);
- 3) the understanding that geomedial media are central to the production of spaces (as they allow the attachment of meaning to physical spaces) and thus the competent usage of geomedial media enables for the appropriation of spaces (a.o. PAASI 1986);
- 4) and, finally, the conclusion that societal participation must hence be realized with mature communication through geomedial media.

The Spatial Citizenship approach started in some ways as an educational counterweight to technologically focused, workforce-led GIS education in secondary and post-secondary education, that does not address everyday challenges and opportunities of the current geomedial society. As Spatial Citizenship targets everyday needs and usage, it addresses the neogeography lay cartographer as a citizen. Still, this focus excludes children. Nevertheless, the idea of enabling children through mapping is not unknown, but less theoretically and methodologically elaborated.

A starting point might for instance be seen in JEKEL's (2008, 69, translated by the author) ideal statement on the "power of maps and the power of children": "Children make (their) space and (their) geography + social space needs powerful representations for enforcement + maps are particularly powerful representations = children make maps".

## 3 Children and Maps, Children and Mapping

"Children make maps" is not necessarily a matter of course, but a matter of dispute as the Can'tianism/Canism debate illustrates. While DOWNS et al. (1988) ("Children cannot [handle maps]") argue for a map education starting not before the end of primary school, BLAUT (1997) ("Children can [handle maps]") is convinced that even very young children read simple maps intuitively. Downs et al. base their arguments on Piaget's theories of children's development (PIAGET & INHELDER 1971) and empirical findings that identify children's problems in map readings. For instance, children tend to understand map symbols such as a red line as physical entities, e.g. as a 'red road'. Although there are empirical

findings that support the “Canism” position as well (BLAUT & STEA 1971), it is disputable, whether an intuitive approach can handle maps’ potential complexity that are „creative statements about the world“ (LIBEN & DOWNS 1997, 160). However, map drawing might help children to externalize meanings they cannot yet express verbally (BRAUN 2009).<sup>2</sup> With the upcoming critics on Piaget’s concept of development, the current consensus in the debate is that children can handle a certain amount of complexity, but learning to handle maps is still a challenging and protracted proposal and should start *early* (LIBEN & DOWNS 1997, MONTELLO 1998).

Simple web mapping (often reduced to point symbols and with simple handling) available today might support this early start, while the classic learning of conventions (e.g. learning standardized signs, such as in NEBEL 2009) is rather counterproductive from an empirical viewpoint (BEDNARZ et al. 2006). Some approaches straightly suggest to skip conventions, or to reduce the term map to its basics, when it comes to map usage of children: „A map is like a picture of where things are or how things are arranged. (..) If you feel that it’s too hard to draw a map, draw a picture of your house and all the special places around your house where you like to play by yourself or with friends. (...) There are many different ways to draw a map. Any way you choose will be fine. Just try to figure out a way to show me your favorite places“ (SOBEL 2002, 19). The approach of “Subjective Cartography“ (DAUM 2010, translated by the author) is very similar to this strategy. While these approaches see hand drawn maps as essential tools, current web mapping is so simple and intuitively useable, that children who can handle tablets might have a good chance to use them as well, and to broaden their scope of communication through the web. The key to powerful, competitive mapping is an accepted map design (HARLEY 1989), nowadays available with digital mapping. A mixture of methods, combining hand-made and digital media, might be a useful compromise for early mapping. In sum, children *can* learn the essence of the technological/cartographical requirements for being spatial citizens.

## 4 Children as Citizens

Spatial Citizenship is characterized by a decidedly emancipated concept of citizenship taking place in fluent communities, and aiming at the activist (MITCHELL & ELWOOD 2012) and actualized (BENNETT et al. 2009) citizen. The question, whether children are able to participate or can be enabled to do so, is widely discussed. This chapter will sum up this discussion, and analyse whether these thoughts are compatible with the concept of citizenship addressed in Spatial Citizenship.

Children are part of society, but are provided with a special role. Adults act for them and on their behalf within a framework of education, disciplining, safety issues, competence development, and support of autonomy. Thus, in this framework, childhood is a highly vague construction, provided with a seemingly consolidated, just legal age-limit. „Assumptions are made by adults about what it means to be a child, and therefore what environments they need. In so doing they fail to recognize that children differ from adults in terms of their

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<sup>2</sup> Visual expression is, by the way, part of visual competence that is gainful even in adult age in a visualized world such as the current, with visual analysis to handle big data and web visualization to overcome language barriers.

‘ways of seeing’” (MATTHEWS & LIMB 1999, 66). Therefore, citizenship with a special emphasis on participation is the central aim of education (JANS 2004). However, children are still widely excluded from participation (SIMPSON 1997), although their lives are highly affected from societal and political decision-making. Exclusion may be based on the following reasons: 1) the biological immaturity, where cultural interpretation differs widely (PROUT & JAMES 1990); 2), the institutionalization of childhood, providing (monitored) spaces exclusively for children and separating them from the adults’ world; 3) the omnipresence of gaming and play in childhood that allows free and active learning by experimenting without ‘real-world’ consequences (JANS 2004).

Nevertheless, there are forms of citizenship in childhood that may carry this label. The children’s “ability to learn and play allows them to give active meaning to their environment” (JANS 2004, 27). Children produce their own culture in adult-made settings through „their own vocabulary and particular patterns of use” (MATTHEWS & LIMB 1999, 69). Alternatively, they search for spaces free from adult supervision, for instance on the web. According to JEFFREY (2012, 245) children have a “resourcefulness” for participation, changes, and resistance through unorthodox methods, such as “humour and irreverence”. Thus, Jeffrey solely mentions examples of coping with conditions, for instance consequence-less tactical practices of the powerless (cf. de CERTEAU 1988) or dutiful service learning (cf. FURCO 1996). The latter may be a chance for learning, but may also consolidate the conditions and potential malfunction of communities. JANS (2004, 41) argues for the acceptance of “playful and ambivalent forms of citizenship”.

This fuzzy concept of citizenship mirrors different approaches that legitimize children’s participation in public (spatial) decision-making processes. According to KNOWLES-YÁNEZ (2005) these are: 1) the educational approach: “democratic responsibility [...] does not arise suddenly in adulthood through maturation” (MATTHEWS & LIMB 1999, 66) and needs to be learned and trained; 2) the scholarly approach: children’s participation is a natural aspect of their development; 3) the children’s rights based approach: “children must be involved in planning processes as a means of honoring their human rights” (KNOWLES-YÁNEZ 2005, 4); 4) the practice approach: chances and methods of children’s participation are existent and should be used.

With its emancipated concept of citizenship, Spatial Citizenship could probably absorb number 3) of these approaches without contradictions. Number 1) seems to be easy to include through the Spatial Citizenship education approach (despite other target groups of Spatial Citizenship education so far). Number 4) seems the most problematic. Although there are ideas how to adapt methods of participation to different stages of child development (see also the scholarly approach, number 2)) (MATTHEWS & LIMB, 1999), most participatory spatial planning projects involving children are hypothetical, and therefore rather planning-games (KNOWLES-YÁNEZ 2005). Therefore, several questions remain: How can children’s participation be shifted from merely gaming situations to everyday lifeworld problems? What role (between educators and supporters) shall adults have when accompanying children’s participation? Is the idea of formation that ELWOOD and MITCHELL (2013) see as the core concept of participation in Spatial Citizenship the way that Spatial Citizenship could look for children, beyond institutionalized, traditional participation? Beside theoretical development of the Spatial Citizenship approach, empirical research on children’s spatial planning projects might provide further insights.

## 5 An Explorative Experiment: A Fictional World

There are several spatial planning projects conducted with school students. However, despite their mainly simulative character, they often seem to be characterized by the students' anticipation and adaption of adults' expectations. For instance, PLÖTZ et al. (2014) let (secondary school) students plan a hypothetical city district on a field outside their town with the help of GIS. They should discuss the necessities of living and working, and allocate housing over the area. Thus, there were very few discussions on the advantages and quality of location (e.g. parks and excess to public transportation), and its relation to housing. In conclusion, single family homes arose in prime locations on a lake's shore, while blocks of flats were located in less extraordinary places, not equally connected to infrastructure. The vision of planning seems to reproduce societal inequalities. Another project, the indeed pending planning of Schallmoos, a district of Salzburg (VOGLER et al. 2010), resulted in rather traditional suggestions of a city that a conservative urbanist could have made. Both results show, that the participants can be perfect service learners, producing whatever society seems to need to function in exactly the way it used to do before. However, the results represent not only a lack of advocating for their rights, but also a lack of societal innovation. (At least, the tool in the second project, Scribblemaps instead of complex GIS, might be a great role model for primary education.)

Therefore, the question remains, what encourages children to find a balance between standing up for their rights and egoism, between sobriety and creative outbursts, between responsibility for others and their own wishes. The following experiment is a small piece of a puzzle to find out how creativity and innovation in spatial planning can be supported and what (pedagogically partly unwanted) side effects such a situation relatively free of expectations might have. A group of ten children between the ages of eight and eleven were given the task of drawing a fantastic world collaboratively (cf. ODENBACH 2011). This is a pointed example for the educational approach of participation in planning processes. Their action space was a floor-covering sheet of paper with a few predefined hypothetical continents.

After a very short introduction in the basics of map production (function of map signs, legend, non-quantified idea of scale, projection) and planetary geography (continents, climate zones, infrastructure), they gave a name to their new planet and started to design their world, including terraforming. A few classic physical-geographic problems occurred during the game, such as crossing rivers. Nevertheless, the experiment increasingly became a geopolitical game; with the first step of demarcation of autonomous states, small groups of participants would shape and defend against artistic interventions of other groups. The children quickly began to equip their states with natural resources (e.g. renewable lolly-trees, and, more conservatively, wind power), and some with industry, in order to make them autonomous. Others completely trusted in military buildup, ending in an absurd arms race along some borders (Fig. 3). Soon, without any physical reference, the map became the territory itself. Border controls took place, when stepping over the map to get pencils from the other end, and crayoned goods were shipped. Remarkably (and positively), spatial thinking and the attachment of meaning became more important in this project than learning cartography or map conventions. The playful character led to amazing inventions, political allies and quarrels, and partly functioning economies – and it postponed borders of what is possible in planning situations, and legitimized a creative and anarchic approach,

but also pedagogically prohibited aspects, particularly war mongering. With the latter, the need to regard the children's products as a starting point for communication and dialogue is obvious. The results illustrate that children indeed have a feeling for the expectations of others (or the absence of expectations). A starting point of Spatial Citizenship will be to enable them to be aware of these and to enable them to control whether they will serve or oppose those.



**Fig. 3:** Resulting map from the experiment (extract, legend available, but not pictured). Armed demarcation line (black) near the center, lolly-plantation in the left.

## 6 Conclusion

The Spatial Citizenship is an approach not exclusively meaningful to young adults and adults. Firstly, concerning the low technical barriers of mapping, Spatial Citizenship education can start much earlier, and, secondly, and even more importantly, children can be spatial citizens – with respect to their life worlds and their need for a few spaces for consequence-less testing, but without limiting their scope of action to play and simulation completely. However, as children learn and live in highly adult-dependent contexts, a special focus must aim at the development of their sense of interest, power relations, and societal negotiation of claims. We need to develop tools of participation, innovation, and negotiation that take children seriously as citizens, acting in their everyday contexts. We need to enable them to be (brave to be) creative, to be innovative (which is, by the way, an advantage for society), and to be aware of their needs and others' needs. Keystones to teach children to be (spatial) citizens is to raise their awareness of patterns of society and societal relations, their reflexivity towards their own role in societal interaction, and their communication abilities to act in societal negotiation.

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