ABSTRACT

This article examines systemic change through a gradual, self-generating change that can lead to a paradigm shift, using urban pioneering movement in Helsinki as an example. The urban pioneering movement aims at transforming the urban culture through activities that generate more tolerant and open city with appreciation to citizen democracy. The movement works against controlled and regulated urban experience and aims at a paradigm shift on how the city is used and perceived. Urban pioneering movement has succeeded in its aims with approaches and maneuvers that may show promise especially in the context of the sustainability movement. The research that was conducted as a part of future learning environments study in Aalto University showed that the urban pioneers generate emergent culture in their environment and they do so by working as if there were two different environments that they need to affect. One of the environments is the visible urban cultural scene where the envisioned change would be taking place and the second is the invisible environment of rules and regulations that the urban pioneers have to work hard with in order to diminish and remove obstacles that slow down the transformation that they aim at. The transformation, when successful, happens as a snowball effect, generating increasingly more change towards the desired goals, until the system has gradually transformed also its values.

Keywords: Paradigm shift, positive and negative feedback loops, snowball effect, sustainability movement, urban pioneering movement

URBAN PIONEERING MOVEMENT AS AN EXAMPLE OF EMERGENCE AND CHANGE

The aim of the sustainability movement is to change the way people use and perceive their environment: instead of thinking of the planet and nature as our servants, we should see ourselves as the guardians of life and biodiversity of the planet. This would require a deep change in the way we live and interact with our environment today. Donella Meadows brought up the fact that the biggest leverage power in changing a system is in changing its paradigm; only a transition to above all paradigms is even more powerful (Wright, Meadows, 2009). Changing a paradigm can happen in milliseconds for one person, but it is much harder to change the paradigm of a community as it always means acting against the values of the existing system, and all systems with any resilience have their ways to resist such efforts for disturb them. However, there are examples of paradigm shifts in communities. Cultures have not remained the same through history, as have not ways of behavior and lifestyles of people. One example of such change is urban pioneering movement which has as its aim to make urban culture more open and permissive. Urban pioneering movement, also called urban activism, is also looking for ways that
Urban pioneering movement as an example of emergence and change

allow citizens to have more access to use of urban spaces. In general, the movement aims at having more emphasis on citizen democracy than on control by authorities. The paradigm change that the movement is suggesting is based on all of these aims - and it carries also the promise of making the urban life more enjoyable for everybody.

Urban activism is a grassroots movement, emerging and creating change from bottom up. An existing bigger system such as a city cannot very easily make such movements happen as they have to get started by the people - however, from a certain point of view also the city system gives birth to these kinds of movements if its rules are too strict. Limitations and strictness can cause people to resist the rigid control in innovative ways. Urban pioneering movement is international – it can be found in many forms in many cities around the globe – but as a grassroots movement, it acts locally. Interestingly, many of these locally initiated ideas gain momentum also in other cities – in these cases, the local movement has wider influence.

1. THE URBAN PIONEERING MOVEMENT

An example of a city where urban pioneering movement has been clearly changing the city culture is Helsinki, which has seen in recent years a lot of new forms of urban culture produced by its citizens. In Helsinki, it can be said that the mindset of how city is used is shifting. The fact that the urban pioneering movement has gained momentum already shows that the citizens have changed their behavior and their understanding of how the city should be used and experienced. They themselves have started to create urban culture, for example events and happenings. But also the city as a governing system has started to change its rules and the ways it operates with the citizens, suggesting that a systemic change might be in course.

Urban pioneering movement itself is a highly complex, open, adaptive and self-organizing system where the shared but formable goal keeps the relationships between people active. Even though the movement is extremely difficult to capture in a still picture of a system description, its outputs or effects on its environment are possible to see, especially in longitudinal review. The urban pioneering movement as this kind of actor in systemic change and emergence of a new city culture was studied in a research program that studies future learning environments in Aalto University (http://indoorenvironment.org). The interest was in finding out what happens before an area becomes a flourishing urban activism center such as Helsinki. For example, the main campus area of Aalto University in Otaniemi has been visioned to be an innovative and inspiring part of the city of Espoo, attracting creative people, businesses and city life much in the same way as certain parts of Helsinki does right now with its flourishing urban life. But Otaniemi is far from that goal - it is an university monoculture with the background of being the home field of the former Helsinki University of Technology. There is not much city life there now, nor has there ever been, even though there have been times when the campus has been activated by the students. However, future changes that include bringing thousands of arts and business students of Aalto University to study in the area and improvements in public traffic connections such as a new subway connection, the area holds promise of becoming an active city-like area. The urban pioneering culture was studied in this context because it holds capacity of creating original local culture that increases the strength of area identity that local people experience. Urban pioneering movement has also been linked to the image and branding possibilities in the city of Helsinki - dimensions that are of interest also in the case of Otaniemi.

In addition to the above, the way that the urban pioneering movement creates emergence and change is also interesting in the context of the sustainability movement. This will be discussed in conclusions. In the research, the focus was on the emergence of a new culture: what has to happen so that the grassroots movement gains momentum to create flourishing urban culture. Several examples of urban pioneering culture in Helsinki were studied with sources from public media, events, interviews, books and academic research.
Urban pioneering movement as an example of emergence and change

2. URBAN PIONEERING CULTURE EMERGING

How does a movement start and what happens before the movement starts to flourish? In Helsinki, as said, the urban activists have already changed the cultural landscape. At the moment, not a week passes without at least one event where the residents have been the locomotive. Well known examples of such grassroots-initiated events are the Restaurant Day (https://www.facebook.com/restaurantday), that has already gone international, and Cleaning Day (http://siivouspaiva.com/en_EN/) that has gained followers in dozens of Finnish cities. On Helsinki day 2013 the city celebrated its birthday with events that were mostly organized by urban activists with the support of city of Helsinki, showing again how the movement has gained momentum and gone mainstream.

In the research, three examples of urban activists’ projects were chosen for closer observation. One of them was the above mentioned Restaurant day. Another example was Cable Factory (http://www.kaapelitehdas.fi/en), where a former Nokia factory building was transformed to a cultural center, housing artists’s studios as well as many other active groups such as martial artists, theaters, museums and businesses. The Cable Factory has also been famous for events and parties that are open for citizens already from its early days. Fish harbor, the third case study, was an area that was activated by a group of urban pioneers who won a contract from the city of Helsinki to curate urban art projects to the area. The area is to be transformed from a former harbor area into a city district (http://en.uutahelsinki.fi/areas/1/kalasatama), and the project was to activate the area during the two years before the construction works in the area were begun. Instead of sculptures and landscaping, the coordinating group invited other urban pioneers to the area to activate it (http://www.hellahernberg.com/urbanism/kalasatama/). The Fish Harbor is already an example of second generation urban pioneering project as the city of Helsinki was the initiator and supported the project. Still, the concept and the idea were generated by the contracted group of urban activists.

3. PREPARING THE SOIL FOR NEW IDEAS

The research showed that the emergence of new bottom-up culture happens in roughly three phases: first, there is a need for preparing the soil and sowing the seeds. Secondly, the ideas need to germinate and start to grow. And if the first two phases have been successful, it is possible to experience both flourishing of the new culture as well as see how the positive feedback loop - a snowball effect - is occurring.

The urban pioneering culture that the city of Helsinki is experiencing at the moment seems to be in the third phase - the paradigm of urban culture is already in the process of change. New ideas are popping up and the city of Helsinki seems to be supportive of them. The flourishing phase is visible in the public media and most citizens recognize such events as the Restaurant day and have visited or at least know about places such as Cable factory and Fish Harbor.

The early phases of the emergence are not visible in the same way as the final phase of flourishing is. The soil can be prepared in many ways and the seeds can occur in many forms. For example, in the case of the Cable Factory, the preparing of the soil may have started when the building became available to rent, for one year, before it was to be demolished to give space for a new residential area. The word spread along some visual artists in Helsinki, and among them it was possible to find many who were looking for such inexpensive, formable studio spaces that the Cable Factory had to offer. In the case of the Restaurant day, the preparing of the soil was maybe the initial idea of approaching the concept of a restaurant from a different angle.

In this first phase, almost anything can trigger a new idea. What is important is that there has to be receptiveness to signals and ideas among individuals, and they also need to connect to each other by knowing that there are similar antenna people to be found in the city. As mentioned
Urban pioneering movement as an example of emergence and change

earlier, also the stiffness of the existing system seems to create material for this first phase - so the first phase is first only metaphorically; in practice it always grows from an existing system and history. Especially it seems to grow from inadequacy and lack of something that people want and value; in the case of the Cable Factory there was a need for inspiring working spaces and with the Restaurant Day, a need for less bureaucracy. The idea for the Fish Harbor became from the need to give room for pioneering urban movements and to experience something similar that the coordinating group had seen abroad, for example in Berlin, where the intermediate use of urban spaces in change processes has taken inspiring forms. This is also an example of ideas of urban pioneering movement migrating - another feature that prepares the soil for changes.

The first phase does not guarantee that the project will thrive. Similar type of seeds of ideas as our example cases have been thrown in the soil in several contexts without them ever becoming anything sustainable. It is enough just to note that this metaphorical first phase exists - in the study of systemic emergence, the next phase is more determining.

4. GERMINATION OF A NEW MOVEMENT

The second (metaphorical) phase, the germination, became the main interest in the research of urban pioneers, showing some repetitive patterns of how change is generated. This phase is the acid test to the ideas, as this is when the project either starts to gain momentum or lose its energy. In this phase, the seeds that have been sown earlier start to grow only if the pioneers use their knowledge and energy to make the change happen. The pioneers really have to work hard and the work that they do in this phase is actually determining the whole movement.

It can be said that the pioneers have a vision of a future state of the system: what they visualize is both a new type of more tolerant urban culture and a new way of producing it, from bottom up. They want to create a new cultural landscape - by changing the existing environment. This vision could be described as a play on a stage, or the visible part of a garden. But in addition to this, there is the backstage with all the arrangements that are needed for the play, or the underground root system of the garden. Especially the roots can be understood by thinking of a situation where the soil is not friendly for growing a new type of garden.

The above describes how the pioneers feel that they are working in two different environments. Even though in a systemic review it can be said that they are situated in the environment of a city, more specifically in the context of the city culture, they themselves feel that there are two different environments or systems that they have to work with. The first one is the visible one, the cultural scene into which they visualize the positive change that they can bring. The other one is the invisible environment of restrictions, rules and regulation that they encounter as they try to make the change happen. The environment of rules, even though it sounds depressing, is not only a hostile one. In this environment the pioneers also find the allies that help realize their future vision.

This finding of the two experienced environments of urban pioneers seems to explain well how the urban pioneering movement acts in the emergent phase of germination and how they also change the city culture.

4.1 The visible: the envisioned environment

The urban pioneers are often surprisingly capable of acting as antennas - picking up weak signals of what is going to be popular and what could bring joy to the city life. The Restaurant Day has gained enormous popularity even though the idea sounds at least confusing at first. It is very much a question about understanding the local cultural context. In Finland starting a restaurant is highly regulated and requires a lot of paper work and permissions from different authorities, and these kind of strict bureaucratic regulations are also a part of Finnish culture in other fields. The same idea would not probably have gained such momentum in other areas where e.g. street
Urban pioneering movement as an example of emergence and change

Kitchens are typical and where the amount of applications for different authorities is smaller when starting a new restaurant. In Finland, however, this simple and strange idea revealed that indeed there are thousands of people who are very willing to try how it feels to have a restaurant for one day, free from virtually all the expeditions into the jungle of bureaucracy.

In the Cable Factory, with 51,000 m² of industrial space, the vision of only a small group of visual artists in the beginning turned out to be correct: it was, after years of work, possible to make the building into a cultural center. This vision has really proved to be sustainable: the Pro Cable Factory movement started in 1991, and even today, the place is popular and artists and different actors, including businesses, are queuing to rent a space from there.

The vision of the pioneers really has to be viable: it is not enough to attract only the people who organize the restaurants for a day or the artists who rent spaces. The idea has to be strong enough to attract also those who are the customers of the one-day restaurateurs and the guests of the events that are organized at the Cable Factory. In the case of the Fish Harbor, this could be seen as the use of the place was made possible to all urban pioneers who wanted to organize some action for the citizens. Some of the events attracted masses of people and these projects continued to develop and grow elsewhere as the official Fish Harbor project ended. Some pioneers tried with ideas that did not succeed that well; however, even in these cases, the larger movement of urban pioneering was learning and developing.

4.2 The invisible: the environment of rules and the torchbearers

The other part of the formula for successful urban pioneers is then how they succeed in working with the environment of rules. Even the first environment requires a lot of work: just to organize an event is a chore, even though the crowd is willing to join the party. But the systemic environment of rules is where it is seen how the pioneers are capable of keeping on working and shaping the conditions to make their vision possible. Their inner strength, negotiation skills and capability to learn during the process is what moves them forward. Here, they are working with the level of beliefs of the existing system and doing the hard work of changing the mindset that D. Meadows referred to. Of course also the vision that the pioneers have already has a small effect on the existing paradigm, but visions are always only in the air before they are realized. And to get them realized, the dive into the depths of the rules is needed.

Working with the rules has in several cases of urban pioneering projects been done by certain individuals who can be called torchbearers. Maros Krivy (2012) called these persons "vanishing moderators": people who are active in the beginning of the project but they are not necessarily there anymore when the idea goes mainstream or when the snowball really starts growing. Krivy studied the case of Cable Factory, where this role was discovered. But the torchbearers can also remain in the movement, as the fathers of the Restaurant day have done at least this far, or they can be professional or semi-professional coordinators and facilitators as in the case of the Fish Harbor. In all cases, the situation is similar, however; from the movement and from the idea of many who share the same vision, a person or a smaller group of people rise to deal with the environment of rules.

In the case of Cable Factory, the torchbearer met literally dozens of officials from the city of Helsinki as well as representatives from different businesses to find support for the ideas of the Pro Cable Factory movement. This person found both supporters of the idea but, alas, also those who were against it. However, even the knowledge of the reasons behind the resistance was beneficial to the movement. The torchbearer was also looking for and found from the officials of the city information about the goals that the city has that could be linked to and supported by the Cable Factory vision. Also, after all the work, the torchbearer was able, together with the other pioneers, to create a new whole from all of the small pieces of information that could be used to build the story of the Cable Factory further.
Urban pioneering movement as an example of emergence and change

Also, with the Restaurant Day, for reasons that have been already described, solid negotiation skills were needed from the initiators of the idea who acted also as torchbearers. However, the Restaurant day has appeared a long time after the fights for the Cable Factory were fought. The city of Helsinki had already experience of the positive effects that the urban pioneering projects can have on the local urban culture and on the identity and image and the city.

This is where the systemic significance of the movement can be seen: the Cable Factory has been in a way a pioneer of the pioneers in the urban activism movement in Helsinki. Even if it was not the first project of urban activists in the city, it certainly has been one of the biggest ones ever, and its effects on the urban culture in Helsinki are massive. Having its germination period in the 1990’s, the story of Cable Factory has had time to effect both the grassroots actors and the policies of the city of Helsinki. In today’s flourishing urban pioneering culture its system changing momentum is clear. During the early times of the snowball effect of the urban cultural change the germination phase was harder just because the old system was still going strong, but even today, there still seems to be rules that need bending and changing. However, in Helsinki it can be seen that it is easier for the late comers to enter the urban pioneering field as there is already momentum in the change, as can be seen with the cases of Restaurant day and Fish Harbor.

5. POSITIVE AND NEGATIVE FEEDBACK LOOPS – THE SNOWBALL EFFECT AND THE THERMOSTATS

In systems terms it could be said that the urban activists are aiming at producing a positive feedback loop or a snowball effect to the visible, public urban environment, while they have to solve how to pass restrictions in the invisible environment of rules. In the invisible environment, the rules and restrictions are seen as negative feedback loops or thermostats that prevent the new ideas from growing - "yes, you can do a little bit, but no, this line cannot be crossed". For the Restaurant day, bending the restrictions and regulations such as the "hygiene passport" that is required from people who are working in restaurant kitchens was the key to the whole event. What the urban pioneers did was that they negotiated their way through the obstacles and made compromises without sacrificing their higher goal. For Restaurant day, alcohol was one of these compromises. Highly regulated in Finland, getting permission to sell alcohol proved to be impossible for the organizers, so they approved to follow the rules. Of course, some creative one-day restaurateurs have found ways to disguise beverages so that they are able to bend also this rule. And in Cable Factory, it was finally impossible to use all of the building for artists, but the pioneers found ways to make the required apartments fit the whole so that they are not disturbing the cultural use.

Working intensely with these limiting negative feedback loops - the thermostat effects - is what makes it possible for the urban pioneers to produce positive snowball effects to the city culture. As the limiting rules are bent or even discarded of, the invisible part of the urban culture also gradually transforms. It is not only the particular limiting cases of rules that may change - and in some cases, the rules are not changing definitively, as with the Restaurant day. The transformation can be seen more gradually but also more permanently on the level of appreciations and approaches. This process may already be in course in Helsinki: in many occasions, the authorities have started to grow interest to the resident democracy. There is more open and proactive communication from the authorities towards the citizens and also an increase in the possibilities for the residents to get their opinions heard. Of course this is also something that the rules and regulations - the law - obligate the authorities to do, but this is just what the snowball effect does: as it rolls forward, it collects along the way things that support its growth. The interpretation of a positive feedback loop as a mechanism that is producing more and more of only the same could be in fact an oxymoron, as the growth cycle requires the possibility for
Urban pioneering movement as an example of emergence and change

supporting elements to join in the process to enable growth. And with growth, also transformation is inevitable.

6. CONCLUSION AND FURTHER RESEARCH

The emergence of new ideas and especially the process of their germination proved to be interesting and for the emerging new identity of the Otaniemi campus area these processes could be crucial. If the future identity of Otaniemi will be defined as innovative from above without the users of the area having possibilities to contribute, there is a risk that the identity of the area remains vague. It is suggested that lessons learned in Helsinki with urban activism should be studied carefully in the development of the future of the Otaniemi campus area. It might be possible even to produce urban culture to Otaniemi together with people as in the case of the Fish Harbor, as there is already some preparation of soil and sowing of seed happening in Otaniemi. Some buildings have experienced a transformation into innovative centers in ways that have similar features as the beginnings of the Cable Factory. However, the open events that got citizens to appreciate and love the Cable Factory are missing from Otaniemi. Also, the traditional culture of the students of technology includes organizing of events - they would just have to be updated to the new situation where a big part of the students of the university are from the fields of arts and business.

The open events seem to be one of the most effective ways to spread the word for the urban pioneering movement - parties that gather people together to celebrate are easy to associate as positive change factors. In the case of Otaniemi, allowing and supporting the culture that brings joy to people should be regarded as systemic change factor.

In addition to the above, for the sake of discussion, one more phenomenon from the research material will be still brought up. This phenomenon, urban gardening, will be part of the future research also in the context of the sustainable development of the Otaniemi campus area. Urban gardening is gaining interest globally and also in Helsinki, and for example in the Fish Harbor area, it was one of the activities that managed to attract a lot of citizens. Urban gardening can be seen both as a part of the urban pioneering movement and also as a part of the sustainability movement. It aims at changing the city into more open and formable for the citizens, and especially for adding possibilities for the citizens to decide how the city spaces are used. Simultaneously, it represents the sustainability movement which also has its own grassroots pioneers and torchbearers.

While urban pioneering movement aims at making the cities more open and lovable for the citizens, the sustainability movement at its grassroots often seems to concentrate on giving up something - the current consuming lifestyle - in order to embrace ways of living that seem very alternative and require learning of many new skills in addition to abandoning old habits. Urban gardening, however, seems to be situated somewhat to the crossroads of these two movements, combining the idea of producing both sustainability and something lovable to the urban culture. Urban gardening is very much grassroots activity and time will show whether it grows into its own movement that changes policies in the cities.

Two popular TED talks on urban gardening, from the cities of Los Angeles, U.S. (http://www.ted.com/talks/ron_finley_a_guerilla_gardener_in_south_central_la.html) and Todmorden, UK. (http://www.ted.com/talks/pam_warhurst_how_we_can_eat_our_landscapes.html) reveal how also the urban gardeners struggle with the environment of rules in the phase of germination of their ideas. Interestingly, both of the TED talks bring up the "let's just do it" attitude, something that could be found also in the early times of the urban activism when illegal all-night parties were organized in abandoned buildings in the outskirts of cities. In Helsinki, and also in the case of Todmorden, the urban gardeners are, however, already working rather determinately
with the rules environment, negotiating their way forward, weighing different options and avoiding possibilities of open conflicts. In Helsinki this is possible as the city has already entered the period of encouraging citizen activism. In some other cities it is possible that there are no other options than the guerrilla approach - the rules of the environment can be so strict that they actually even produce this type of activism.

To conclude, it seems that both the Otaniemi campus area development and the sustainability movement would benefit from learning from the urban activists how to create self-generating snowball effect that creates identity and also changes the environment of rules. While Otaniemi campus area needs systemic ways to build solid area identity, the sustainability movement would have to find approaches that introduce something that people would want to grasp, instead of offering only renunciation of the comforts of modern life. With urban pioneering movement, the local, self-produced culture is becoming more appealing than the multinational culture of consuming. Still, nobody is really requiring anyone to give up anything - instead, urban activists are just offering something better. Similarly, the sustainability movement would have to find ways to tap into something that attracts self-generating snowball effect, changing the paradigm of the system from within.

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