Small, local, open and connected
Design for social innovation and sustainability

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The only sustainable way to get out of the current global financial and ecological crisis is to promote new economic models, new production systems and new ideas of wellbeing. To define and implement these new models is, of course, very difficult. But it is not impossible. And we do not have to start from zero. In the last decades, in fact, a multiplicity of social "actors" (institutions, enterprises, non-profit organisations, but also and most of all, individual citizens and their associations) have been capable of acting outside of the mainstream models. And, doing so, to create a large amount of concrete experiences that could consolidate, spread and become the most convincing answers to the present dramatic challenges.

The emerging scenario. Thanks to the promising experiences accumulated to date we can outline a new scenario. This emerging scenario streght is given by the fact that it can be built at the intersection of three main innovation streams: the *green revolution* (and the highly environmental friendly systems it makes available); the *spread of networks* (and the distributed, open, peer-to-peer organisations it generates); the *diffuse creativity* (and the original answers to daily problems that a variety of social actors are conceiving and implementing). We will refer to it as the SLOC Scenario, where SLOC stands for *small, local, open, connected*. These four adjectives, in fact, synthesise very well the socio-technical system on which this scenario is based: a *distributed production and consumption system* where the *global* is a *"network of locals"*. That is, it is a mesh of connected local systems the small scale of which makes them comprehensible and controllable by individuals and communities.

The SLOC Scenario is useful because it gives a clear direction of where to look for sustainable solutions. In fact, it indicates that sustainable solutions necessarily refer to the *local* (and the *community* to which this *local* mainly refers) and to the *small* (and the possibilities in terms of relationships, participation and democracy that the human scale make possible). At the same time, it tells us that to implement solutions, we have to consider these small entities and these localities in the framework of the *global network society* where the local and the small are both open and connected. This change in the nature of the small and local has enormous implications: with the new networks it becomes possible to operate on a local and small scale in a very effective way. Moreover, these networked systems indicate the one and only possibility to operate in the complex and fast changing environment generated by the present crisis and by the double transition towards a knowledge society *and* a sustainable society.

Social innovation. Practical applications of SLOC-oriented initiatives already exist. Some of them are rather diffuse. Others are still quite marginal. But all of them are practical working prototypes of new ways of living and doing. Considered as a whole, they demonstrate that the SLOC Scenario is not a utopia, but a potentially viable perspective. The challenge, therefore, is to transform its potentiality into a mainstream reality. To do that it is necessary to better understand the complex interplay between social and technical innovation that generates the cases on which this scenario is based. In fact, all the promising cases we are referring to here

emerge from a virtuous interaction between social and technical innovation: *they have been conceived and implemented (mainly) by the involved actors*, using their personal capabilities, their direct knowledge of the problems to be solved *and* applying at best (and, very often, in a totally unforeseen way) existing technologies.

Generalising what we have just observed, we can assume that this *positive interplay between technological and social innovations is a powerful promoter of sustainable ways of living and producing.* Technological innovation opens new opportunities (in terms of unprecedented forms of organizations) and social innovation mobilizes diffuse social resources (in terms of creativity, skills, knowledge and entrepreneurship). This positive double link between grassroots users and technology is particularly relevant in the transitions towards sustainability - if small and local systems are concerned, nothing can happen without a diffuse and creative participation of the people directly involved. And vice versa. These people are the only ones who can creatively adopt (and adapt to the local specificities) distributed and peer-to-peer models. In other words: *no distributed systems without social innovation.*

Promising cases. Looking at the complexity of present day society, we can find out that, in every country in the world, there are promising cases of social and technical innovation: collaborative social and residential services, bottom-up urban improvement initiatives, local and organic food networks, distributed production systems, cases of sustainable local development. These examples, that could be seen as significant steps towards sustainability, are the result of a multiplicity of initiatives performed by a variety of people, associations, enterprises, and local governments who, from different starting points, move towards similar ideas of wellbeing and production: an active wellbeing based on a sense of community and common goods. A production system intended as networks of collaborative people and based on a new relationship between the local and the global. In their diversity, these cases have a fundamental common characteristic: they all refer to places. That is, to local resources and local communities.

Even if in quantitative terms these cases are still (more or less) marginal, nevertheless in qualitative terms they are extremely meaningful. In fact they can be seen worldwide as viable anticipations of sustainable ways of living and producing. Of course, these emerging features assume different meanings in different societies and places. Nevertheless, their presence in situations so far away from each other makes us think that they may constitute a first set of *sustainable features*. In other words, they can be seen as the building materials to develop possible sustainable alternatives to the current unsustainable ideas of wellbeing, production and economy.

Ways of living and producing. A closer look at these promising cases, in terms of wellbeing, indicates that, in their diversity, they have a fundamental characteristic in common. Each one of them compensates for the reduction in consumption of products with an increase in other qualities. These qualities include the quality of physical and social environments with the rediscovery of *commons*; the quality of relationships with the rediscovery of *communities*; the quality of being active with the rediscovery of *individual* and *social capabilities*; the quality of time with the rediscovery of *slowness*. All these new qualities are based on some traditional ones, re-interpreted in the present context. All of them, to be appreciated, require a *human scale*, that is, they require *small (comprehensible, manageable) systems*. At the same time, today, given the high level of connectivity, these small systems can (and have to) be *open*: open to the interactions with wider flows of people and ideas that characterize contemporary global society. For this complex relation between being small and being open we can refer to the expression: *cosmopolitan localism*.

Looking at these promising cases, in terms of producing, what appears is a new relationship between the local and the global where new, local but connected systems of production and consumption appear. This general feature can take different specific forms: the *sustainable valorization of local resources* (from natural environments and agriculture to craftsmanship and local knowledge); the realization of symbiotic production processes (from zero waste systems to industrial ecology districts); the development of *distributed systems* (from power generation to manufacturing and to the whole economy). Considering these features as a whole, what appear is a new relationship between the local and the global. A *connected local*, where knowledge, money and decision making power can circulate in worldwide networks. But where, nevertheless, the larger part of them remains at the local scale. That is, the major part of knowledge, money and decision making power remains in the hands of those who produce them.

Small, local, open, connected. These emerging features, and the cases of socio-technical innovation on which they are based, are characterized by the four keywords that have been mentioned before: *small, local, open* and *connected*.
These four words are meaningful because they are, at the same time, *visionary,* if considered as a whole (they generate a vision on how society could be), *comprehensible*, if considered one by one (their meanings and implications can be easily understood by everybody) and *viable*, because supported by major drivers of change (the emerging complex relationships between globalisation and localisation, the power of Internet and the diffusion of the new forms of organisation that makes it possible).

Finally, these four words are important because, synthesising the results of 20 years of discussions and concrete experiences*,* they clearly indicate that there is no hope to design sustainable solutions without moving from the notions of *local* and the *community* to which this *local* mainly refers. At the same time, there is no hope of implementing them without considering these localities in the framework of contemporary transformations. That is, without considering that, in the *globalised network society*, the local and the small are, at the same time, open and connected. This point is crucial and it has to be better developed.

Small is not small. Some 30 years ago E. F. Schumacher wrote his very famous book *Small is beautiful.* At that time, because the degree of connectivity was (relatively) low, the small was really small and the local really local (that is, isolated). Therefore, Schumacher's option in terms of the small and local scale could be proposed only as a cultural and ethical choice. Today, it is no longer like that: with a higher degree of connectivity, when the small can be a node of the networks and the local can be open to the global flow of people and information, *the small is no longer small* and a *local is no longer local,* at least in traditional terms.

This change in the nature of the "small" has enormous implications, for better and for worse. Al-Kaida, for instance, is a bad implication: it is in fact a constellation of small groups of terrorists that, being connected, became as powerful as a big army. On the other hand, the (potentially) good implication, and the most interesting one for us here, is that with the networks it becomes possible to operate on a local and small scale in a very effective way. Moreover, these networking and flexible systems indicate the one and only possibility to operate in the complex and fast changing environment generated by the double transition towards a knowledge *and* sustainability based society.

Local is not local. Similar considerations can be reviewed with regard to the notion of "local", and the related one of "place". In the last decades there have been long and important debates on the emerging world of flows and, therefore, on the "end of places" and of localities. In my view, the observations from these discussions were and are still correct: it is

important to recognize the role of flows and the crisis of traditional places (with the corresponding diffusion of "no-places"). But these observations do not capture the entire complexity of the new reality. In fact, looking into this complexity, we also see that a growing number of people is actively searching for places (that is, for specific local traditions and new forms of localities).

In doing this, they establish an articulated and often contradictory relationship with the global. As a result, we see the emerging phenomenon of localisms that exist in the global framework, or rather that exist because of the long lasting trend towards globalisation. This phenomenon has also two sides, where the negative side is the dangerous emergence of a "local" as the idealised roots of a dreamed of pure and solid identity (as opposed to the one of "the others": the *closed localism)*. The positive side is the local as the generator of original possibilities and cultures, to be cultivated locally and exchanged globally: the *cosmopolitan localism*.

Design for social innovation. Designers, and design researchers, can do a lot to empower social innovation for sustainability. They can feed the social conversation (i.e. the interplay between social and technological innovation) with visions and proposals. And they can collaborate with both diffuse social innovators (to help them conceive and manage their initiatives) and with technologists, entrepreneurs and policy makers (to develop products, services and infrastructures (to make the most promising initiatives accessible and replicable and, in this way, to open new markets and economic opportunities). These design activities, considered as a whole, can be defined as *design for social innovation and sustainability.*

Design for social innovation and sustainability is potentially relevant, but it is still in its initial stage. All the topics we have discussed until now need different kinds of research to be developed. Not all of them have to be developed by designers. But, for sure, many of them require some specific design knowledge: *scenarios,* to articulate in different contexts the general vision of the "small, local, open and connected"; *solutions* to implement these scenarios in a variety of specific applications; and *tools*, to facilitate the new designing networks and, more generally, to support the on-going social learning processes. In short, going back to what has been said at the beginning, the topics synthesised by the words "small, local, open and connected" can be considered as general guidelines to trigger and orientate a wide, open and collaborative design research program.