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SUSTAINABLE FOOD, SPATIAL PLANNING AND AGRO-URBAN PUBLIC SPACE IN THE BIOREGIONAL CITY

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Keywords: planning, multifunctional agriculture, river contracts, integrated project, agricultural park.

Abstract: Although the recent settlement dynamics show urbanisation as a still ongoing process (OECD 2007), qualitative analyses point out resistance phenomena in rural areas (Barberis 2009) and the emergence of an intermediate 'urban-rural' territory in which a large part of the population lives (Espon 2011). In the urban bioregion (Magnaghi 2014) such intermediate territory gets a new identity through the relationship and spatial design of the primary physical components of the ecosystem services, beginning with polyvalent ecological networks (Malcevschi 2010). Such networks may become the backbone of a 'rururban public space' defined in relation to flooding risks for river areas, soft mobility, historical buildings, proximity farming, agro-forestry areas. This paper illustrates the case study, currently in progress, of the project for the Riverside agricultural park of Arno's Left side, involving three municipalities in the Florentine plain through the support of Regione Toscana for the participatory processes (Regional Law no. 46/2013), and aimed at signing a 'river contract' for the construction of a riverside agricultural park. Its final goal is to define a strategic integrated scenario project aimed at encouraging and supporting multi-functionality for agricultural areas through a manifold system (measures of the new CAP, management of hydro-geological risks, tourism, etc.) apt to grant the farmers an active role in the restoration of territorial public space at the bioregional level.

1. From periurban areas to the urban bioregion

The attention to the periurban, considerably amplified in the recent years (Bianchetti 2002; Bruegmann 2005; Dal Pozzolo 2002; Gillmann 2002; Ingersoll 2004; Venier 2003), has produced so far no metaphors or actions apt to overcome the problems of the open territories located in the fringes of urban expansions, but has in a way dignified them, identifying in their own features (ambiguity, confusion, disorder) the peculiar code of contemporary living, caught between the persistent trends of urbanisation (OECD 2007) and increasing phenomena of 'rural resistance', currently noticeable not only in qualitative terms (Barberis 2009; ESPON 2011). Today's intermediate territories, placed "in between the cities" (Sieverts 1997), with shifting borders and fragile textures, has been built without a project, without any reference to the long-lasting territorial rules, nay, ignoring them to embrace a settlement model which is directly hostile to local traditions, to contact sociability (Delbaere 2010) and which, most of all, keeps marginalising rural areas. Such intermediate territories are the canonical environment for areas at severe risk from several points of view (food security, hydro-geomorphological safety, loss of cultural identity, loss of landscape values, etc.) that, however, offer a great regeneration potential due to their important endowment of agro-forestry.
In this country, about 10% of the population (about 6 million people) live in 29,500 sq. Km considered at higher geological risk, while 1.2 million buildings are in danger for potential landslides and floods (CNG 2010). It is a situation out of control, caused by an urban-centred development model, polarised in large metropolitan areas and which, in parallel, produced the mechanisation and industrialisation of plains and valleys (the so-called 'green revolution') and the abandonment of rural con-

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texts, marginal and not easy to cultivate. A drop in the maintenance of the hydraulic lattice completes the picture of the abandonment of rural areas, and motivates increasingly frequent and devastating flooding in many Italian regions, where an area of 24,358 sq. Km (8.1% of the national territory) at high danger of flooding is home to about 2 million residents (ISPRA 2014), with the greatest risks obviously concentrated in urban and suburban areas due to the amount of buildings and people they contain.
Such weaknesses cannot be overcome with just technical sector-based actions, they require a wider bioregional approach aimed at reopening the structural relationships between territorial systems and at strengthening emotional and identity relationships with places (Iacoponi 2001; Thayer 2003; Calthorpe, Fulton 2001), while at the same time rediscovering the centrality of food.
The urban bioregion is then the conceptual reference for an integrated territorial project enhancing all the different components - *economic* (related to the territorial local system), *political* (self-government of life- and work-places), *agri-environmental* (territorial ecosystem) and *related to living* (functional life-places of a set of cities, towns and villages) - of a *socio-territorial system* pointing to a balanced co-evolution between human settlements and the environment and to *territorial fairness* (Magnaghi 2014; 2014ta). A sustainable planning of local food production has the potential to re-weave structural links between the different systems and to provide criteria for the spatial redevelopment of people's life-places, mainly of urban areas. To manage a project having the social component as the main reference point, planning contracts between public administrations and private individuals may be useful, as they seem to be best placed to define a strategic framework of shared rules between associations, citizens, stakeholders, with the objective of put in value the multiverse features of territorial heritage, founding nucleus of the identity code of a place-aware living.

2. Territorial public space in the urban bioregion

In the recent years, in urban environments, we have attended the birth of two archetypal figures: the rural city and the urban countryside, fruitfully meeting each other exactly in the fringe territories (Mougeot 2005; Donadieu 2006; 2011). Activating a new pact between town and countryside (Magnaghi, Fanfani 2010) means returning a clear sense both to the city and the countryside, triggering a process aimed at a "re-peasantization" (Ploeg 2009) of periurban countryside and at a 're-cityzation' of the urban edge territories (Poli 2014). Along this way, periurban areas lose their ambiguity and uncertainty to be put back into the countryside realm: a countryside which remains countryside, but which now carries out innovative, multifunctional and multidimensional services for the city while still keeping its rural role and functions (see Art. 4 of the Tuscan Regional Law 65/2014).[2] The powerful relationship between these two worlds lets us rethink the periurban as a public space at the territorial scale, where it becomes possible to design new views for revitalised urban edges.
The switch from a periurban as a mere surface for urban development to an intermediate territory to live requires putting in value the ecosystem services that open territories offer to the public (Costanza *et Al*. 1997; MEA 2005),[3] on which set new multidimensional standards for territorial govern-

[2] Art. 4, paragraph 2: "Transformations involving commitment of underdeveloped land for settlement or infrastructure purposes are permitted only within the urbanised area as identified by the Structure Plan".
[3] The United Nations programme "Millennium Ecosystem Assessment" (2005) has systematically declined the roles of utility that ecosystems play for mankind, listing the goods and services they provide. Based on this definition, MEA has provided a classification dividing eco-systemic functions into four main categories: *Supporting*, *Regulating*, *Provisioning*, *Cultural* services. *Supporting services* sustain and allow all the others to be performed; among these: the formation of soil, the availability of mineral elements such as nitrogen, phosphorus and potassium which are essential for the growth and development of the organisms allowing and maintaining

ment, following the direction of the "proximity farming green" scheme proposed by the regional Master plan of Ile de France, with 10 square meters per person of neighbourhood green in the heart of the agglomerations (SDRIF 2008).
In this view, agro-urban intermediate territories achieve a 'public' role through several aspects:

- the various activities related to the category of *ecosystem services*: risk reduction (landslides and floods); supply of food and biomass; biodiversity and landscape; cultural, sports and leisure functions;
- the presence of *agricultures already multifunctional or in transition towards multi-functionality* (Deelstra *et Al*. 2001) producing public goods and services;
- the definition of *fair proximity and network economies* pointed at common goods;
- the *care* for territorial heritage and the active citizenship actions.

3. Multi-functional and contractual nature of the project "Farming with the Arno. Riverside agricultural park"

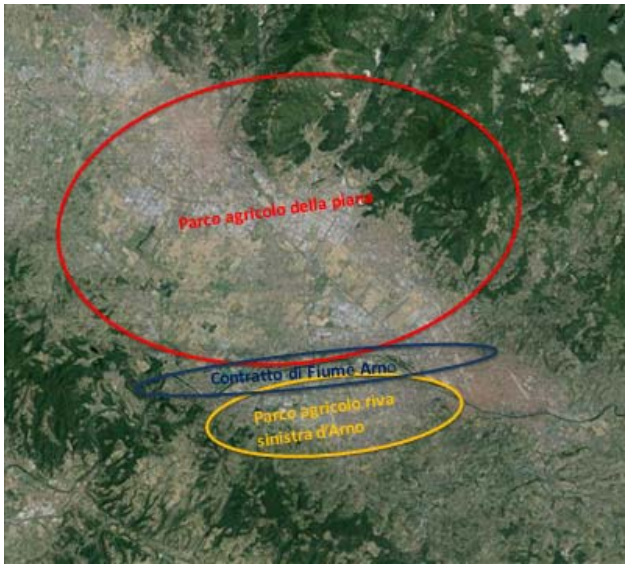


Fig. 1. Location of the project (yellow) with respect to other projects for the revitalisation of agro-urban territories currently in progress.

The project "Farming with the Arno. Riverside agricultural park" is sponsored by the Metropolitan City of Florence (leading institution) together with the municipalities of Florence, Scandicci and Lastra a Signa and the Department of Architecture of the University of Florence (Research Unit "Project Urban Bioregion").[4] Operations started in 2009 with a Memorandum of Understanding (Butelli 2015) and currently rely on the support of the Authority for the guarantee and promotion of participation of the Regional Council of Tuscany (Regional Law 46/2013) co-funded by the institutions involved.

habitat, reproduction, nutrition and regeneration. Their impacts on people's life are often indirect or become visible over a very long time. *Provisioning services* are products directly supplied by ecosystems such as food, raw materials, biodiversity, fresh water. The ones belonging to the *regulating system* are the benefits obtained from the regulation of eco-systemic processes ensuring habitability such as regulation of climate, water, erosion, soil, pollination, biodiversity. *Cultural services* are intangible and relate to the benefits that the population gets through cognitive development, reflection, recreation and aesthetic experiences.

[4] See <http://www.dida.unifi.it/vp-323-probiur.html>.

The duration of the project is planned for a period of nine months from April 2015 to January 2016.[5] The area affected by the work falls within the periurban territory of Florence on the left bank of the Arno, a crucial area for the Metropolitan City. The work is aimed at designing in participatory form a strategic plan for local action, a pilot project of integrated and multi-sector enhancement of the rural environment, from periurban fringes to waterways, pointed at regenerating territories in accordance with the European Convention on Landscape and with the Regional Landscape Plan recently approved (from geology to ecology, food production, fruition).
The project is now taking the road of combination between the contractual dimension of the river contract and the integrated planning of the multifunctional agricultural park through the development of a River Contract with the function of Riverside agricultural park. The actions related to river contracts (Bastiani 2011), at present appreciably widespread in Italy thanks also to the recent acknowledgement by the Ministry of Environment,[6] show the effectiveness of an agreement design put into practice through a dense participatory and negotiating path among the different actors, able to achieve the signing of an agreement with public administrations that producing public utility, by integrating social value, environmental sustainability and economic viability.[7]

Fig. 2. The project area.

The project intends to build a public-private governance both horizontal (among local actors) and vertical (between local actors, administrations and associations) with a wide range of funding institu-

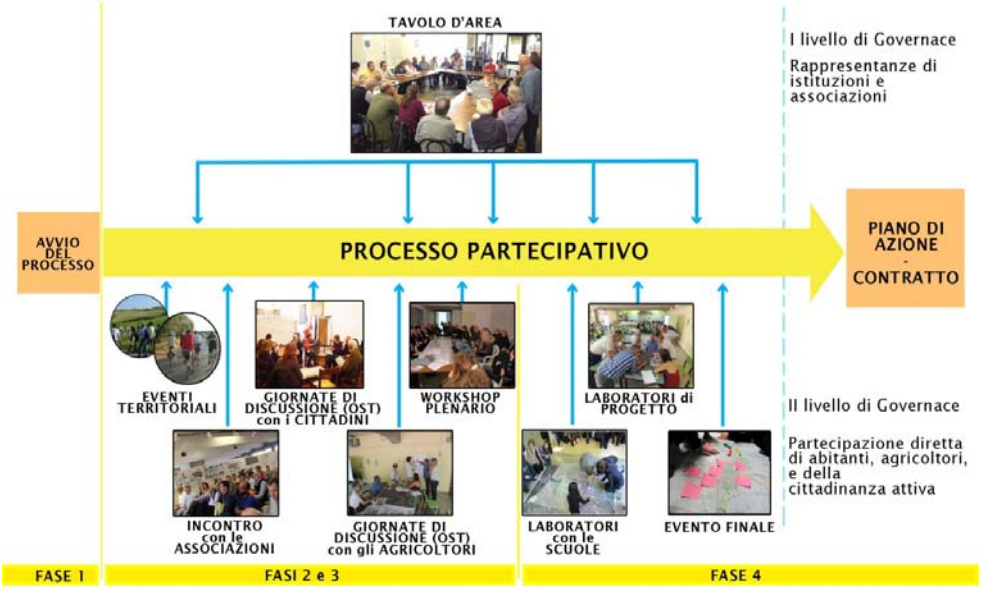
[5] Already in 2009, Regione Toscana, Province of Florence (leading institution) and the three municipalities involved, with the Faculties of Architecture and Agriculture, had signed a three-year memorandum of understanding for the development of periurban agriculture. The writer is the head scientist of the research. The working group includes Riccardo Bocci, Elisa Butelli, Elisa Caruso, Maddalena Rossi, Adalgisa Rubino, Alessandro Trivisonno, and is accompanied by a Multidisciplinary Scientific Committee of the University of Florence with city planners, agronomists, foresters, naturalists, economists coordinated by Alberto Magnaghi.
[6] The Italian Ministry of Environment acknowledged River Contracts in the Art. 24bis of the Environmental Code (d.lgs 152/2006).
[7] Referring to the European Convention on Landscape, river restoration is here understood in a very broad sense and provides for a multi-sector approach interrelating several aspects (hydro-geo-morphological, ecological, settlement, rural, fruition, participatory, aesthetic, etc.) in order to design durable development scenarios.

tions (municipalities, land reclamation consortia, basin authorities, etc.). The investigation on field and the meetings revealed a strong association and cultural vibrancy. 465 associations have been detected in the area (238 in Florence, 89 in Scandicci, 138 in Lastra a Signa); among these, 117 associations (65 in Florence, 18 in Scandicci, 34 Lastra a Signa) with purposes related to the project have been divided into 4 categories of reference (social, cultural, environmental, sports). Two main goals have been identified:

- imagining and designing through a participatory and shared approach, in a crucial area for the Metropolitan City, a strategic plan (Local Action Plan of the River Contract) aiming at the promotion of a key role for the various stakeholders involved (local associations, active citizenship, citizens, schools, farmers, convicts, etc.);
- making effective the system of governance of the Action Plan of the River Contract with function of Riverside agricultural Park as an integrated tool for strategic planning and territorial programming in order to define procedures, rules, actors, actions, tools, the multi-sector projects and the related forms of financing to be taken within the range of the ordinary territorial planning tools.

Organised in two levels of governance, the process consists in an extensive series of meetings and design workshops that employs preparatory works such as questionnaires, interviews, thematic seminars:[8]

- first level: Area Table with institutions and associations representatives, attending the three municipalities;
- second level: local Tables and Workshops with residents and farmers.



[8] The following meetings have been held: February 26, 1st meeting of the Multidisciplinary Scientific Committee at UniFi-DiDA; May 5, first Area Table at the San Bartolo a Cintoia meeting place; June 4, meeting with the associations at the Vingone meeting place; June 18, meeting with the residents at Castello dell'Acciaiolo; June 30, meeting with farmers at the Ugnano meeting place; July 2, second meeting of the Multidisciplinary Scientific Committee at UniFi-DiDA; July 18, meeting with the residents of Lastra a Signa at Villa La Guerrina.

Fig. 3. Structure of the participatory process.

As well as by the institutional representatives of the project, the first Area Table was attended by many other actors deploying a potential network of supporters of the first action plan of the River Contract with function of Riverside Agricultural Park.[9] The specificity of the project lays therefore in facilitating local planning with residents and farmers, but also in being able to avoid the widespread distrust of citizens and associations active towards the 'rhetoric of participation', unable to produce binding decisions for the public operator. The contract, signed between associations and institutions, is aimed at overcoming this frequent deadlock through an agreement committing to transpose all the decisions taken into the ordinary instruments of government of each public authority. Once signed, the River Contract - acknowledged as a territorial government tool and included in the Environmental Code as well as in plans like the Water Management Plan and the Hydraulic Risk Management Plan - requires the adjustment also of the governmental acts in force (Structural Plan, Town Planning Regulations, Sector Plans, sector EU/Region funding, etc.).

4. The active role of farmers in managing and restoring territories

The participatory project aims at encouraging and supporting (through the measures of the new CAP,[10] the agreements between public administrations and farmers, local incentives, etc.) multi-functionality for the agricultural areas of plains and hills, granting the residents and farmers an active role in feeding the city, reducing the ecological footprint, taking care of the river banks, promoting the development of biodiversity and the production of goods and services respond to an increasingly visible public demand for nature, leisure, health and sociability.

Bringing the periurban back to the rural realm, then, means granting farmers (the present and the potential ones, who the project intends to reinstall) a key role in providing ecosystem services essential to all citizens and in building, on this base, build new forms of sociality and local economies oriented towards local self-sustainability.

The project focuses on a new type, multi-functional and landscape-aware farms (Poli 2013), which are linked in network, make education, are open to direct harvesting and sales and part of the GPO (group purchase organisations) network, produce healthy food, build vegetables supply chains by marketing and processing products, supply canteens and so on; and which, along with the small and big heritage elements (abbeys, churches, palaces, ancient towns, etc.), play the role of keystones of the territorial public space and, for this reason, will be encouraged in restoring structures and technological systems (greenhouses) as in sharing working tools in order to create a pleasant life environment enjoyable for tourists and locals, who will support and accompany the great transformation with voluntary activities and by creating civil and proximity economies (Bruni, Zamagni 2009).

To achieve this result it is necessary to encourage, through various sources of funding (from the RDP measures,[11] public canteens and activities for territorial safety, tourism, renewable energy, etc.), the multi-functionality of both the agricultural areas, to allow farmers to supplement income with the many activities possible in densely populated areas, and the built spaces, which along this way can go back to being real life-places for people, and not mere aggregates of functions.[12] For example, the

[9] Among others: the Basin Authority, the Water Resources Consortium, the Prison, the Agricultural School, national associations like CAI (Italian alpine club), UISP (popular sports association), Legambiente and Italia Nostra (environmental associations), the *Pro Loco's*, Slow Food, the Italian Centre for the River Redevelopment, together with several local and national farmers, residents and citizens committees.

[10] "Common Agricultural Policy" of the EU countries.

[11] Rural Development Plans.

[12] Just to mention a few activities: management of riverbank vegetation, access to the river and beaches, rental

cycle and pedestrian paths crossing the park, thoroughly equipped with buffer strips, while serving for tourism and citizens' health, at the same time become part of the ecological network in connection to the ecological corridor of the Arno river, while mowing feeds the local energy network and mellifluous hedges serve for beekeeping. For the management of hedgerows farmers are subsidized by the RDP measures, while for the maintenance of trails specific contracts with public bodies seem recommended.
In all the meetings held a clear concern has emerged about the high land consumption and the planned and expected steps of urbanisation (e.g. new hypermarkets, the completion of a technological incubator, scrapping areas, new road infrastructure, camps, saturated urban land), which averts land to agriculture and break the minor hydrographical network.

5. Spatial translation of the participatory agro-urban project

Starting with the research results already emerged within the memorandum of understanding signed with the municipalities in 2009 (Butelli 2015) some primary integrated goals have been identified and then verified during the meetings of the Area Table with associations and the Open Space Technology with residents and farmers:

- *creating the Local Food System* by building a system of local governance (Brunori *et Al*. 2007) with organisations, protection consortiums, GPOs, local governments and authorities, people, schools, associations, managers and officials of public and territorial services;
- *encouraging new styles of life and consumption*, the inclusion in agriculture of disadvantaged people (convicts, people with disabilities, etc.) strengthening the local market, short supply chains and fair and collaborative forms of civil economy (Bruni, Zamagni 2009) with the assurance of a fair income for farmers;
- *identifying and equipping the agricultural park from the logistical point of view* with new services useful to the activities related to multi-functionality of agriculture (farmers' markets, park gates, service centres, signage, cycle and pedestrian paths, promotion of cultural heritage, etc.);
- *supporting the green public procurement in agri-food*, first by connecting the food demand of public canteens (hospitals, schools, barracks, etc.) with the offer of local agricultural products;
- *returning to cities and urban centres the river view* through the reconstruction of urban fronts supported also by the mediation of periurban agriculture and the social and community activities it plays;
- *securing* the streams and making them accessible through a recovery of morpho-dynamics, a reduction of the banks slope, the shaping of the riverbed, the reconstitution of different depths;
- *recovering and recycling for farming purposes the waste water* from the San Colombano purifier through phyto-remediation, and the ones from industries by building an industrial canal and establishing closed loops in permanent greenhouses;
- *abandoning the 'rhetoric of participation'* by identifying positive ways to make effective the actions chosen in the participatory process, supporting the project actions in progress and providing in each municipality 'pilot projects' able to start by the end of the process;
- *strengthening social and network activities* already in progress in the territories of the future park to spread from below new awareness throughout the population.

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of canoes, bicycles, horses, implementation and management of areas for fishing, of the cycle and pedestrian trails crossing and surrounding their possessions, canal cleaning, management of the multifunctional ecological network along the roads, home and tent hosting, education, floods control, social agriculture and so on.

The process allowed the emergence of a few lines of action that outline a significant reorganisation of the agro-forestry and urban edge territories; I will point out three: 1. *The multidimensionality of the Arno river, its tributaries and its multipurpose ecological networks*; 2. *New forms of community and multifunctional agriculture*; 3. *The restoration of edges and the creation of agro-urban centralities*.

5.1 The multidimensionality of the Arno river, its tributaries and its multipurpose ecological networks

Representing the element of continuity across the three municipalities, the Arno has been identified in all the meetings as the main axis, the very core of the 'new public space at the territorial scale' on which the new urban fronts will have a view. The old towns, once closely linked to the river, today turn away from it with marginal areas built with no attention to its presence. During the meetings, the river has been always perceived as the backbone of the redevelopment, a multifunctional ecological corridor from which the soft mobility paths will spring out to radiate throughout the region from the plain to the hills. This network will reclaim and revitalise the paths leading to the crossing point of the many 'ferries' once active on the river which, after the deletion without replacement of all the crossings, became blind roads stopping unnaturally in front of the ancient docks. It is also being built a bike path along the river, from its source in the province of Arezzo to its mouth near Pisa via the Florence area, which will introduce to the metropolitan area a significant amount of cycle-tourists careful about landscape and environment. The territory will have to gear up to accommodate these visitors, who may find great accommodations in rural hospitality that the park territories could offer. Companies play a key role for the activities they can play along the river in relation to recreation and tourism: hospitality, catering, direct sales, management of parking areas, rental of canoes or bicycles (possibly agreeing with other companies to allow pick and return at different points).

The Arno has also many weaknesses from the ecological point of view, represented by the pollution of its surrounding areas, the presence of alien species floating on the river and destroy the native vegetation, by soil sealing (with buildings, road infrastructure, greenhouses, etc.) that threatens not only the functionality of the river but also the lives of people and the very economic activity. Given the significant presence of built-up areas along the urban part of the river course, it is now accepted the impossibility of 'securing' its territories. The attention, even in the Flood Risk Management Plans (Basin Authority) are now facing especially the participatory management of risk, through the identification of activities that can be carried out by farmers and regulated in the plans pertaining each jurisdiction. The Flood Risk Management Plan in the Middle Valdarno, e.g., introduces the notion of *areas in river context*, quite exceeding the purely hydraulic vision of adjacent lots and enhancing agricultural activities consistent with the context. "The areas in river context represent areas of particular interest for the management of flood risks, the protection of the good regime of outflows, the safeguard of the environmental, cultural and landscape peculiarities associated with the hydraulic lattice" (art. 6, paragraph b). Significant are also memoranda of understanding between the bodies in charge for the maintenance of waterways and the agricultural professional organisations which assign to local farms a permanent role in monitoring their status. In this regard it is worth mentioning the successful pilot programme "Custodians of territories" in the Province of Lucca, similar to River Contracts in involving farmers in the monitoring and maintenance of the river Serchio and remunerates them for the provision of ecosystem services (Vanni *et Al*. 2013). Thanks to the opportunities offered by cooperation contracts with public administrations (Art. 14 of Decree 228/2001), the pro-

ject has managed to keep a rural presidium in a marginal context focusing on hydro-geological safety and the enlarged fruition of territories. [13]

Also in our project the farms, and especially the ones directly facing the waterways, will play a key role in monitoring, in communicating with the local regulatory authorities, in carrying out, directly and in coordination, small maintenance works as mowing along the river, thus catching even the firewood. Of course, even the activities for the expansion of agriculture must be connected with the main goal of building an ecological corridor of regional importance, which means that the project will not entirely fill public lands with agriculture, leaving at least one hundred meters to riparian vegetation, essential for the ecological rehabilitation of territories.

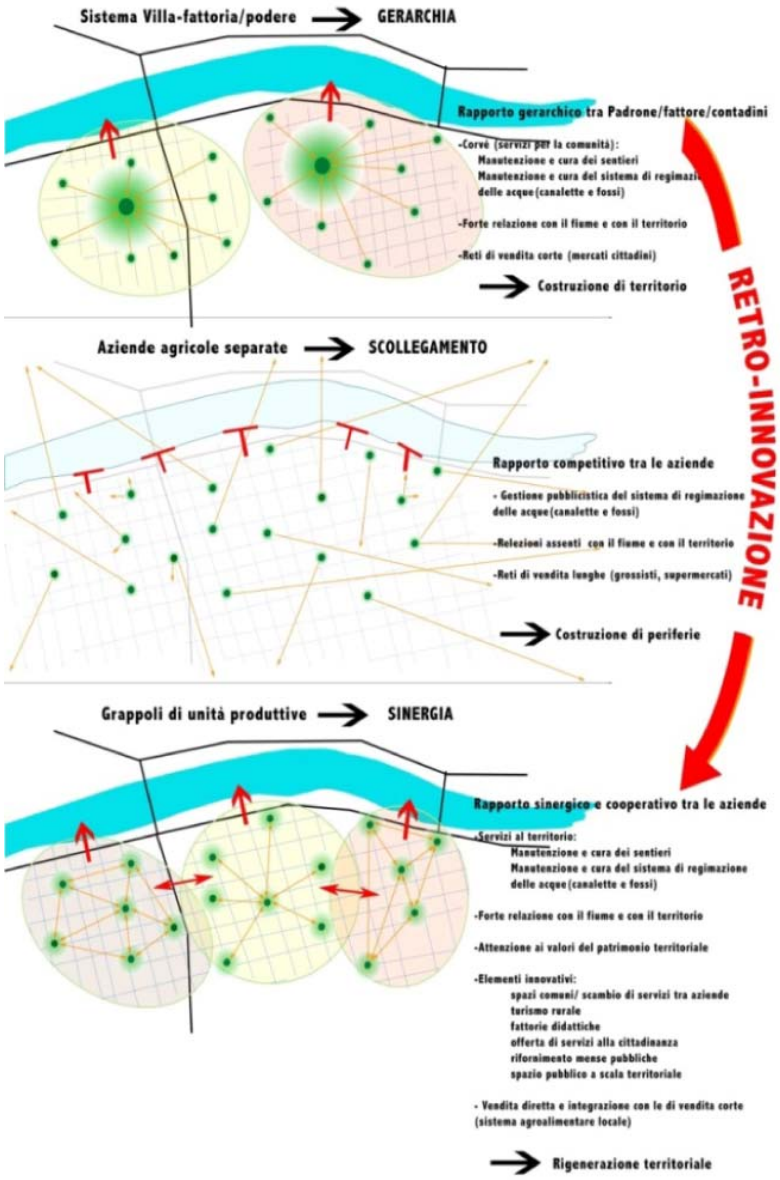

Fig. 4. Re-designing networked functions for the waterfront farms represents a form of retro-innovation.

[13] Such contracts, regulated by the above mentioned Article, are already widely used in several national contexts (e.g. in Jesi, see Belingardi 2013).

The main focus is then to reconcile general goals at the regional scale (ecological corridor) with local targets concerning production and fruition, through the definition of multipurpose ecological networks (Malcevschi 2010):

- building a true and powerful ecological corridor at the regional scale, connected to the local ecological network through the combs of the tributaries, which is also a local reference for landscape and fruition, possibly preferring crops consistent with the effectiveness of the ecological network (food-forestry, etc.);
- making the Arno the ecological backbone of the territory, with perpendicular ecological networks crossing the plains and rejoining the Arno with the hills on the left and right bank, creating ecological gaps in the continuum of buildings;
- defining cycle and pedestrian paths consistent with the ecological functions of the river;
- fostering an active role of agriculture in supporting the fruition of territories through sports, culture, tourism; making the farm a service centre for the users (stables, restaurants, bicycle and canoe rental, management of river access, small wharfs, crossings, etc.);
- managing the functionality of the embankments in line with the riverside gardens, the beaches that can be created on the natural bars, the boat quays, etc .;
- establishing the category of the 'farmers custodians of the river' assigning them the monitoring and maintenance of riparian vegetation, canals, the management of boats on the river, as of bicycles, crossings, places of rest.

5.2 New forms of community and multifunctional agriculture

This is a crucial topic for the project's success. The future agricultural park stretches both in a hilly area and in a plain. Types of farms are very different. In the hills there are small and large farms in a valuable landscape context, with crops dominated by vineyards and olive trees. There is a noticeable presence of farmhouses, stables and organic farms. Here the production of landscape is one of the distinctive features of farming activity, which brings of course an attention to the environment. Dramatically different is the situation in the plain, hosting residual activities on the one hand, with small plots managed by hobbyists or elderly farmers, and on the other large production companies, mainly horticultural. In either case, there is little interest to multi-functionality, due both to the lack of entrepreneurship for the former and an attitude markedly oriented to production for the latter.
An action taken is aimed at networking farmers in the area in order to activate the cooperation possibilities in ambits ranging from the common management of farming machinery and technological infrastructure (especially greenhouses), the inter-farm crop rotation in the transition to organic production, to the transfer of products for public canteens and so on. One of the main opportunities in this context is the strong presence of public canteens - schools and other services such as prison, hospitals etc. - calling for local and organic products. The meetings let emerge the demand for a reorganisation of canteens apt to return as much as possible to autonomous and integrated form focused on the use local products mixed with the ones from the school gardens. This goal requires a coordination of local production, which seems not so easily achievable especially in plain areas, due to fragmentation and the lack of uniformity of enterprises.
A crucial issue on which, conversely, the project is investing a lot of energy is directed to the social use of wastelands 'awaiting urbanisation', mainly located just in the plain areas. In Italy the Law 440/1978 "Rules for the use of uncultivated, abandoned or inadequately cultivated land" authorises the Regions to allocate abandoned land in usufruct to other subjects in order to protect territories against hydro-geological instability. Moreover, Article 838 of the Civil Code provides for the automatic return to the collective ownership of "abandoned land". Regione Toscana has promoted a cen-

sus and established a Bank of the Land to provide for the allocation of wasteland. The municipalities, in agreement with the owners, can in fact enter the idle land in the Bank expecting to assign them in foster care to farmers through a call.
The Metropolitan City of Florence has carried out a census of the uncultivated areas in the agricultural territories of the park falling in the three municipalities, census which the project has further refined. On about 5,500 hectares of agro-forestry and in the face of about 3,650 hectares of UAA (Utilised Agricultural Area: arable 1181; olive grove 1743; vineyard 373; orchard 46; complex particle 327), about 250 are uncultivated and among them approximately 35 hectares are public property. Thus an important territorial capital emerges which can play a strategic role in the success of the project.
The most of the properties consist in land without residence, outcome of de-ruralisation, which has divided land from rural residence to place the latter on the housing market. The plain area abounds in disconnected land portions which are uncultivated or devoted to precarious farming, with no contract or assigned in loan for use at very short term. Although the recent urban development plans do not provide for new development in the plains, and the new Regional Law of territorial government (no. 65/2014) prohibits to build outside the urban areas, there is still a widespread expectation for being to put in value the land rent due to urbanisation.
In situations like this a land consolidation is usually invoked in order to bring the broken land and boost the agricultural activity of farms. In this particular context, however, consolidating means encouraging land grabbing by companies operating at the expense of access to land for new farmers. The project is thus experiencing the chance of a creative solution to the problem, defining with the concerned social players a new type of 'patchy' farm, with divided plots with an appropriate size that, although spaced, can be easily reached on foot or by bike. On these plots it should be possible to build modular buildings (equipment shelters, barns, chicken coops, etc.) located in their different portions and collectively managed as much as possible.
The lack of residence in the farmland can be remedied through public investment in social housing for farmers in the new urban-rural fronts, that the same Regional Law on territorial government asks to restore. For these new farms companies it is being studied a specific call allowing access to different categories of farmers (farms, new farmers, associations, non-EU citizens, young people, etc.) with a specification requiring the performance of activities and public services related to the agricultural park, like supplying vegetables to public canteens, networking, recruitment of disadvantaged people (convicts, former drug addicts, refugees etc.), guaranteeing access to the paths crossing the farms for all users, willingness to do teaching, organic farming through the presence of buffer strips, care of trails, canals and ditches, etc.. The project also finds in the non-EU population an opportunity to create supply chains for fresh or processed food that, passing through ethnic shops and restaurants, come directly from the field to the table (e.g. soybeans, soy milk, tofu, etc.).
In parallel to the request for access to land by farmers (irrespective of age) there is a substantial demand of hobby agriculture coming from disparate categories not necessarily included in the elderly people, who still appear to be the main reference of the lending standards for social vegetable gardens. In the municipalities involved, moreover, just few are currently the public areas devoted to gardens, even if social demand is strong. As a proof of this interest, there are several private areas used as gardens (parcelled agricultural land rented or sold) and other public (and private) areas actually occupied by gardens. The project intends to use part of the idle land to locate public horticultural spaces outsourced to disparate subjects (migrants, unemployed, young people, students, families, etc.) that can benefit of agriculture as a supplementary income, and to properly design those areas to develop new forms of contact sociality (Delbaere 2010). To give effect to this goal, the planning discipline should define new standards for urban agriculture.

The substantial presence of wasteland and the obligation of putting them in culture represent a considerable opportunity that, when coupled with the preparation of the call for assignment and of a specific discipline, can make social planning effective again. The management of this important challenge should use a strategic project integrated to the various forms of financing that can be activated. In this context, in order to enable public planning apt to stimulate the agricultural park project, it is essential to play the game of idle plots, as they can become 'multifunctional periurban model farms' triggering emulation processes. This requires to:

- define the calls for the Bank of the Land so that all the categories of farmers are widely represented;
- establish rules based on the delivery of those community ecosystem services apt to obtain direct and indirect funding;
- promote the temporary assignment of land for a time allowing new farmers to install and invest;
- provide agricultural units also patchy with new residences in the margin and a modular logistics;
- promote the landscape production of agriculture, in particular in peri-monumental areas, apt to enhance and restore the local patrimonial elements (trees, rows, extension of the plots, etc.) to return landscape dignity to the periurban;
- promote the integration of agriculture and fruition, town and countryside by introducing a new civic use (the 'fruitatico') granting all users the right to walk, run, ride a bike or a horse in some paths within the farm.

5.3 The restoration of edges and the creation of agro-urban centralities

The bioregional design of periurban territories is based on the reactivation of sociality and forms of local self-government. Periurban territories are thought of as a large public space at the territorial scale, organised in activity nodes and connecting ecological networks which regenerated urban fronts overlook.

A margin area is not just the separation line between internal and external, which can be identified by the term 'urban edge', but regards a more extensive range consisting both of the urbanised and the rural area (Resource Management Branch 2006; Ministry of Agriculture and Lands 2009). The fruition and economic proximity relationships are exactly what defines this amplitude, placed on the two sides of the edge. This is the everyday territory, identified by the time spent to walk or cycle a certain route. The line marking the border is often jagged, irregular, consisting of mixed fabrics of poor quality, often with no public space (Socco *et Al*. 2005; Maciocco, Pittaluga 2001; Palazzo, Treu 2006). The margin is the potential diaphragm where exchanges concentrate.

In these areas to be regenerated, to be transformed into new fronts, the project intends to place new urban-rural complex public spaces, new marketplaces, places for meeting and sociability revolving around the food production and exchange. The OST with the farmers has shown the difficulty for many small producers to sell their products. Not only participation in markets, but also direct sale or harvesting in the field is sometimes too expensive. A small producer often works alone and when committed to selling he cannot cultivate at the same time. In most situations farmers have remarked the need to identify areas where producers can deliver their products while someone else takes care of the sale. This issue has immediately appeared as a keystone, a strategic opportunity to solve many social problems described by the residents, individually or in groups, in the meetings. Gradually, during the work, the space began to take on increasingly clear features. A composite space should not be confined to buying and selling, such as a store or a supermarket, but has to be a complex place

where it is possible to perform many diverse functions, including purchase and sale; an outdoor area for the external market, but containing indoor spaces where to allocate activities related to new trades, the peasant school, the farmers' time bank (where one shares and exchanges farm work), with dining venues and short chain ethnic restaurants which use the products of the park and where also disadvantaged people work; an area jointly and self-managed by the promoters which can also play the role of 'park gate', with information offices on the activities and the sightseeing opportunities, which also offer directions for the accommodation in B&B, guest houses, farmhouses in the park. In such marketplaces or nearby even the farmers 'custodians of the park' could find an accommodation to work in the recovered wastelands. Several actions are then necessary:

- identifying brownfield sites that could be used for the construction of agro-urban public spaces located in the margin;
- designing, together with farmers and operators, their multifunctional definition;
- identifying new farmers from countries inside and outside EU to be installed in the wastelands;
- detailing a space project.

6. Conclusion

The bioregional perspective allows to approach the transition of the periurban from a mere surface where to allocate housing, services and metropolitan functions to territorial public space redeveloped and dense in life revolving around the production of food. Bringing the periurban to a new complex condition in the rural realm means recognising the regenerative centrality of agro-urban contexts and encouraging a transition of agriculture towards a multi-functionality able to make the most of its location near the urban. Multifunctional farms should become the new varied keystones of territorial public space, integrating the productive dimension through contractual tools of governance that convey funding from different items of expenditure on the provision of ecosystem services (RDP, water safety, tourism, school , etc.).

These actions will characterise the first action plan of the River Contract with function of Riverside Agricultural Park with a strategic plan that includes spatial guidelines for the municipal urban plans concerning:

- the boundaries of the urban buildings and the treatment of margins;
- the agricultural green standard for the suburbs;
- the soft infrastructure between the river and the hills;
- the gaps in the multifunctional corridors between the river and the hills;
- the river context and its particular planning properties;
- the design of the nodes and networks in the project (new urban centralities or agro-urban centres, local markets, schools, prison, outskirts, multifunctional areas in the park);
- corridors, cycle paths, waterways, footpaths, bridleways.

In its multi-dimensionality and multi-functionality, the farming activity can thus be put in condition, through a careful management of local heritages, to rehabilitate territories, build landscape, regenerate the urban form integrating with other proximity activities (catering, food trade, social agriculture, tourism, sports, etc.), thus reversing a process of peripheralization which is still in progress.

7. References

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