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# Peri-urban agriculture and cultural heritage.
# The public potential of the *in-between* areas

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**Abstract**

In this paper we examine the effects of urban farming in a worldwide system of dismissed areas affected by the phenomena of large-scale industrial dismissing and shrinking cities. We study the features of urban decay and subsequent spill overs of land and soil use in private and public conduct in agri-urbanism. The connection between the city and its farmland could represent an opportunity to improve the welfare of the whole area near the city, made possible by establishing a close relationship between the development of sustainable agriculture and the city. This renewed interest in agricultural production not only depends on urban and - or economic interest, but on a new conception of city that can improve the use of agricultural gardening to overcompensate for the empty spaces between industrial and rural areas, as well as those peri-urban spaces which are included between buildings and sub-urban voids.


**Keywords**: urban planning, public space, peri-urban agriculture, rust belt, cultural heritage, shrinking city, city and food, industrial heritage.

## 1. Introduction

The paper will illustrate that the cohabitation of agriculture and the city is possible, in particular analysing the case of the American Rust Belt, a large north-eastern area in the United States characterised by the presence of an old, dismissed iron industry surrounded by extended farm fields. In the last few years, American policy, rather unknown to European academic literature, has been promoting the standardisation of interventions in the documentation process of the heritage buildings of Detroit, Cleveland and Cincinnati, and the agricultural developments in the surrounding areas; in this paper we will evaluate the different approaches and the economic consequences related to the actions taken to reduce the issues of de-industrialisation of the Rust Belt, with the aim to formulate a theoretical model, applicable to the different urban landscapes and multiple social contexts featured in global cities. One of the goals is to define the features of what would be a universal peri-urban agriculture to be realised in the future, a new image of the city that, as Richard Ingersoll said, could be attended as a home garden. In Section 2, the idea of scapes is analysed; without disturbing the widely cited definition of "Scapes" by Arjun Appadurai (Appadurai, 1996), we can describe industrial urban Scapes as the sum of cultural, architectonic and infrastructural facilities that give complexity to a territory formerly related to mono-production and a large-scale factory, currently closed or in via of dismission. In Section 3, we observe the features of the geographies of dismissed areas, with a peculiar focus on the cultural aspects that lead the population towards agricultural exploitation of brownfield and grey field sites. In Section 4, we exhibit selected case studies, distinguished in Urban, Peri-Urban and Extra-Urban areas; in Section 5 we will discuss the similarities and differences between the cases, focusing on global and hyper – local solutions. In Section 6, we finally conclude the paper and highlight future scenarios of research.

## 2. "Scapes" and urban decay

Until the 80's, agricultural production took place at the edges of industrialised cities and answered univocally economic needs linked to conditions of poverty; today, the anthropic pressure created by the urbanised environment, leads to a different way of thinking about rural areas, especially concerning their role in relation to the city in environmental and social fields.

In the Modern age, Le Corbusier was already interested in the relationship between cities and agriculture, producing a personal vision of the urban farm[1], but the current cultural and economic context requires a different kind of consideration on the subject. The development of infrastructures and transportations produced a physiological expansion of the relationship between agricultural areas and inhabitants, leading to an insulation occurring as a result of a "geographical division of the work"[2]: a phenomenon connected to the industrial productive cycle. This event resulted in an "extensive sub-urbanization" (Piazzo, 1991), a pattern which continues today as "the city grows keeping away the countryside, which transforms itself into new suburbs and uncultivated areas" (Donadieu, 2006).

This expanding process is corroborating the oxymoron of that "built countryside", understood as being the connecting fabric between different urban environments belonging to the same metropolis; inside this dichotomy between built and agriculture, "well-observed phenomena of dragging and friction"[3] can be identified that are degrading

or fascinating, and involve the city and the countryside.

Contextually, it is useful to pay attention to a different urbanistic issue, a specific one, as it could be applied to areas characterised primarily by productive settlements depressed by the economic crisis. The span of the phenomenon of the abandonment of areas by inhabitants, which involved those unused geographical areas of production, has in fact resulted in urban decay and city reduction; a result quite different from that of the dispersion of the archipelago-city[4].

Before attempting a broader discussion on the topic, we believe that is important to clarify the meaning and the notion of Shrinking cities and also that of Landscape.

The decaying urban areas, characterised by the presence of abandoned industrial buildings, became today's witnesses of the so called "shrinking cities"[5] phenomenon, or urban contraction. A phenomenon which has corroded the economic, demographic and formal structure of the contemporary city, a regressive process which, apparently, cannot be stopped. As highlighted in the report by the European URBACT program, the Shrinking experience relates to different aspects of the urban environment -iGDP, population decline, the reduction of services etc…-; this phenomenon may constitute urban conditions characterised by homogeneous symptoms, such as the abandonment of real estate assets (existing or under construction) or the definition of landscapes in decline, devoid of functions or uses. The depressive results of a similar envelopment, noticed in USA areas as well as in East Europe, are not only ascribed to the haemorrhagic drop in requests in the building market, but they are also engraved in a landscape studded with immovable "producing machines"; abandoned factories, in areas in which the city and the countryside would struggle to provide the same resources.

One can see the contraction of urban fabric, the depression of abandoned areas, the coexistence of used and unused buildings and the reduction of productive areas: all these aspects make the continually expanding city unsustainable.

Could it be possible to solve this dichotomy, the coexistence of forgotten buildings and urban agriculture, by finding a common solution which can create the conditions for sustainable development of cities?

To find this solution, it's necessary to consider urban perforation, (resulting from the contraction or sprawl phenomenon), not as a menace but as a brand-new possibility to reconstruct a different public space; a fertile field for experimenting new ways of urban, economic and politic governance. Such a theoretical approach could be seen in the applicative model of the Rust Belt, an area in the North-East of the USA, which is characterised by a free-trade economic model, based in the almost decayed iron-cast industry. The cities belonging to this denomination are peculiar because of the coexistence of abandoned industrial buildings and a wide agricultural landscape, proper of the American countryside, and also because of their need for urbanity. Where in the past, industrial development flourished, today there is a new chimera. As a matter of fact, "the utopian thought of the Nineteenth and Twentieth centuries wanted to build new cities abandoning the old, in the Rust Belt, the utopia experiments itself in the ruins of the latter" (Coppola, 2012) echoed similarly in (Dudley, 1997).

From this perspective, the notion of Landscape can abandon the traditional scenic function (and the perceptual-environmental appreciation) to contemplate ecological issues and to consider the effects of the conversion of abandoned areas; In this sense, Landscape design, overcoming its disciplinary limits, evaluates appropriately different interventions placed in

heterogeneous areas of the city, from the consolidated contexts to the peri-urban areas; as from this evaluation come specific urban regeneration projects produced by scholars like Chemetov, Clément or Desvigne, which transformed natural parks into critical spaces.


## 3. Geographies of industrial legacy

The current appearance of industrial architecture, with its standardised and largely anonymous features, comes as a result of studies on the reproducibility of the work carried out by Albert Kahn during the Second World War, when the need for industrial overproduction necessitated a rethinking of production facilities due to the necessity of a massive production of war-related goods.

Certainly there have been cases of factories far away from the Kahnian paradigm, such as the Olivetti factories in Pozzuoli and Ivrea, but for the most part the one-storey factory model, organised along a linear production system and almost devoid of openings to the outside (born from the need for night obfuscation techniques during the war), remained unchanged until the '90s of the twentieth century, when new considerations on the scale of industrial production changed that pattern.

It should be noted that the Kahnian model is an evolution of a model devised by the same Kahn decades before, during experiments on automotive factories, that were widely criticised by Peter Reyner Banham (Reyner Banham, 1989).

The Kahn-planned factory universalised the concept of worldwide industry, wiping out the cottages made by Gustavo Giovannoni, the Egyptian temples by James Combe and the Ottonian towers in Frankfurt by Beherens.

The universalisation of the image of the factory was not followed by a universalisation of symbols. Le Corbusier reportedly attributed a mythological and symbolic role to the factories of Detroit and the Midwest Silos in the transformation of the American landscape pattern, and in the rhetoric narrative of Soviet Union, the Tractor Factory in Volgograd, also designed by Albert Kahn, exalted the Soviet resistance to the Nazi occupation. In other words, the creation of identical objects at all latitudes, in turn creates different metaphorical paradigms strictly related to a localist interpretation of territorial specificities.

Still, we can observe that in some languages, including Italian, "factory" is said "fabbrica", which has a duality of meanings, both as "the place in which something is manufactured" and as "the building which is under construction and not yet finished". An example of this is the so-called "Fabbrica del Duomo" (Factory of the Cathedral) found in most Italian cities (Rome, Siena, Milan, etc.), that represents a long-term maintenance system that is charged with replacing damaged elements in the architectural body of the church with "spare parts".

We can observe how in this sense the same term can offer continuously mutable value, and also express the iteration of a job (a trivial example could be the replacing of degraded parts of the façade, and the industrial infrastructure – mines, freights, workers, etc. – necessary to those substitutions). At the same time, the "fabbrica" in terms of "factory" is the place for the continuous creation of goods. If this place ceases its activity (i. e. continuous and iterative action), its ultimate purpose also ceases.

We can see how many closed industrial buildings become memorials of industrial civilisation (Edensor, 2005). In these places, as often noted by scholars who have studied semiotics, the crisis that led to the closure of the factory is often relegated to a

secondary narrative construct in respect to an epic dimension of choral narration of industrial production.

The reason for the closure of the factory, and the resulting substantial uselessness of the factory, are aspects that are usually only described and interpreted, on a rhetorical level (Dicks, 2008).

Indeed, when the closed factory survives change, and appropriates its new features, it is too often linked to a non-productive dimension. Monuments, museums, memorials (in the case of traumatic events related to the factory), luxury residences and urban parks, are often the fate of the old factories.

Almost never, or very rarely, the factory recovers a more productive purpose.

Massive de-industrialisation has, however, highlighted the need for a new policy for the use of land between the city and the factory: in a number of cases, including Sendling, in Bavaria, the industrial buffer zone has been transformed into urban gardens and the former industrial area transformed into a large fruit and vegetable market at km 0.

The urban structure of the industrial city is often typical: two large hubs, one tertiary-residential (the city), and the other one production related (the factory). This structure acts as a binary star, one of the two hubs, the factory, matters to both the human and productive aspects of the city until - when its life ends - so to does the life of the urban core.

Two belts exist between the two hubs: the first a belt around the city consisting of residences and services and the second, a belt around the factory, characterised by the presence of small processing industries and services associated to the largest factory. Cleaning companies and maintenance, small business owners and engineering companies for the repair of vehicles, they are all located exactly halfway between the industrial complex and the workers' residences.

As we shall see in the next paragraph, the urban, suburban and peri-urban dimension of industrial areas, at diverse scales, allows urban agriculture to fill the capillary voids created by shrinking cities.

On a theoretical level, the coexistence of new models, related with sustainable, shareable and green economy, for the exploitation of industrial monuments is observable (for example in social and artistic spaces, for instance, in the former Ruhr area). In addition, the presence of agri-urbanism on different scales (educational gardens, small private gardens, large production plots) is feasible, and in moments of tremendous crisis and social tension, could serve to generate a communal field of shared skills and resources and social cohesion (Percy, 2008).

## 4. Examples and case studies

It is now necessary to inquire about the condition of these intermediate areas and about the possibilities they offer concerning urban reconversion and regeneration: "truly because they are places of competition and antagonism between different tendencies, whether to be ascribed to natural environments [...] or to the purely perceptive grade, [...] or to the social order" (Romani,1983). This condition is very close to the situation that Gilles Clément (2005) describes in his *Manifesto Del Terzo Paesaggio*, as being particular to "shade and light places", in which it is useful to "start a process of re-qualification of the vital substrata- air, soil, water- modifying the peripheral practices to

the spaces of the Third landscape, in order to avoid altering the practices of the latter and make its influence possible"[6].

What a thought, but how could it be realised? And according to which modalities?
Again, the Rust Belt cities could be taken into consideration to answer these questions. Within the identified geographic framework, we believe it is possible to find three different methods of intervention, related to the dimensional availability of the urban, peri-urban and extra urban areas. These interventions to the small, medium or large-scale are oriented towards defining a new concept for and a new image of urban and productive landscapes.

*4.1 Re - appropriation exercises within the urban environment*
The first intervention method is well represented by the urban micro-operations of recovery, namely interventions involving modifications to incomplete or abandoned small scale spaces, usually immersed in consolidated contexts.
These zones have undergone the shrinkage process, leaving room for urban orchards and unexpected as well as fascinating public gardens, creating attractions for visitors and new meeting places. A phenomenon which has two European practitioners in France: the AAA Group (Atelier d'Architectur Autogérée) and the Collectiv Etc, which are interested in the promotion of use and management of abandoned places. Typical examples of these reinvention methods are the Place au Changement in Saint- Étienne and the Eco-interstice in Paris[7]. The second example is particularly interesting as the AAA Group promoted a public consultation concerning the usage of place, and also arranged the necessary synergy between local institutions, associations and professionals, bring the aim of returning a degraded public place to a public domain, into fruition. Today, the interstitial area, in which there is a vegetable garden and a hothouse, is used by seventy people as area for gardening activities and for the production and  selling of biologic goods.
Since 2005, we can trace the progress of a successfully implemented strategy in Detroit: through the addition of more than 1,400 urban gardens, the city has changed its productive vocation; the same vegetable gardens, together with the "Mufi agribusiness park" (located on the northern edge of the city), produce over 2,000 tons of fruits and vegetables annually. More minimal interventions programmed within a wider transformation of urban fabric – if realised in appropriately and strategically selected areas – can also produce considerable interest and useful outputs. If the growth of the city by adding volumes does not constitute an urban value in and of itself, the overwriting of specific characters, made with reference to the socially sustainable agriculture language, can edit the new image and economy of city. Is it possible in this way to identify an architectural identity, in sharp contrast to the alienating character of the abandoned city[8].

*4.2 Transformation of soils in the sub-urban areas.*
A second way of action can be located into the peri-urban areas of the cities. In in this case of interventions, on an intermediate scale, between the urban and the industrial areas we found projects like the Value Farm designed by Thomas Chung in 2013 in Hong Kong, the visionary garden towers proposed by Vincent Callebaut, or experiences of Prinzessinnengärten, an Urban Farm in Kreuzberg, Berlin. It is actually quite difficult to interpret projects just by considering the architectural aspects alone, which will inevitably require an evaluation oriented towards understanding the complexity of different

overlapping systems. The importance given to the issues of green, permeability and redeems the interventions by the simple exercise in design, define areas of transformation physically homogeneous and anchored to the middle of the urban scale. In fact, in this case it is not only possible to refer to typically architectural fields, but it is also appropriate to point out how actions can affect the average extension of surfaces located at the outskirts of the city, and how they have interesting economic implications.

Let's consider, for instance, the Hantz Group, a financial and insurance society which operates in Michigan and Ohio. The owner, John Hantz, diversified the Group's investments, preferring to privilege soil over shares. Thanks to an agreement reached with the city of Detroit, he created a for-profit timber society called Hantz Woodlands, which includes an agroforestry operation for the recovery of abandoned grounds near industrial areas, in order to plant a wood of beeches. As a result of this experience, the "Hantz Farms" were also created, farms of medium dimensions settled in abandoned areas, which create an environmental and ecologic continuity between the agroforestred areas and the <u>proper</u>ly intended "urban areas". The final aim is not only to give a landscape infrastructure, but, above all, to link investments with territories, in which there is the risk of an impoverishment of the soil due to the accumulation of debts. Although this is one of the most virtuous examples, an aspect should be underlined: the agreement between Michigan's Department of Human Services and the Hantz's does not expect bonds on oil exploitation. It is possible to observe that Hantz's operation (which has proposed his model as the world's largest urban farm) gave an essential contribution to the definitions of some of the dynamics involved in the occupation of soil occupation for agricultural aims. This specific kind of occupation, has played a fundamental role in a renewed environmental wellness in Detroit itself.

This strategy includes various forms of intervention in the landscape; contrary to the previous experienceswe analysed, the result of this intervention is based on the presence and distribution of different layers: permeable surfaces for public and private use, the economy and the management of the areas in disuse, to give a different importance to the economic features of the entrepreneurialism of the actions.

*4.3 Amendment of the peri-urban landscape*
The last strategy refers to the realisation of large scale projects that are able to match ambitions for sustainability, regardless of the sole functional appropriateness or efficacy of intervention. This way of thinking about extra-urban areas and abandoned industrial areas, can offer agriculture the opportunity to reinterpret the environmental conditions, "lifting up the unproductiveness until giving it politic dignity"[9] and exploit growth and biologic development, as opposed to the economic conditions. It should be highlighted, that among the ruins of a contracting city, there are not only alienating places and cartographical voids of small dimensions, but also industrial buildings that bring cultural heritage with them, as aforementioned, and which now, after being abandoned and disused, are available for different usages which could offer economic and social support to the permeable edging between city and countryside, also on an economic level, thanks to rescuing and retrofitting activities. Shelby Farm Park could also be mentioned here, a wide, green area of 1800 hectares, situated outside Memphis (a city belonging to the Rust Belt), well known for its penal settlement, which is now an agricultural urban garden. Abandoned at the end of the 60's, the penal settlement has been the subject of a

competition in 2008, with the purpose of reconverting the area and its structures. The building is now a research centre for experimental cultivations and its 400 hectares in the south-east area are occupied by vegetable gardens. Meanwhile, the remainder of the masterplan is divided into twelve landscape-rooms, each one characterised by intensive or biological cultivations. This division into rooms and the coexistence between private agricultural areas and public ones, permits one to experiment with a different perception of the park, in particular, and of public space in general. These examples are all aimed at significantly affecting the metabolism of the geographical territory, assuming the value of an ideological program, both in the functional and figurative sense.

These experiments were born as a mix of different uses, already oriented towards defining the environment and extra urban landscape otherwise without specific vocations except for low-quality agricultural monoculture or pasture land.


## 5. Discussion: between global and hyperlocal

Over the past 15 years we have developed several trends in the field of reuse of industrial ruins.

On one hand, a European tendency towards iconisation and musealization of the ruin, on the other a US vision, linked to a nostalgic and hipster relationship with the ruin, well summarised in the concept of "Ruin Porn" (Strangleman, 2013). This expression is related to a series of photographic books, artistic and architectural experimentations and movies, focused on a simplified and superficial narration of the industrial past, decayed and reduced in scenic backdrop.

These simplifications are a typical phenomenon of Western culture, in many cases (for example the former sugar factory in Cesena), the industrial ruins are reduced to a dumb symbol, typically a chimney, around which the new city grows.

The symbol, then, is silent, neither communicating something about the previous situation nor collaborating with a different form of urban aggregation.

However, in many cases, where industrial ruins have been replaced by agricultural development, we can observe a multitude of positive aspects, including the conservation of biodiversity by experienced growers, who transmit knowledge, skills and know-how to newcomers (see for example the experience of "BUGS" at the University of Sheffield). At the same time, in the Lake Park of Upper Lusatia we have seen the creation of a shrine to species of fish, in an area that until a few years ago was ecologically compromised.

The problem of agricultural diversity is already part of ancient history. Over ten years ago, in 2002, Vandana Shiva wrote one of the most illuminating essays, which tells the tragedy of the apparent variety of products: "It seems that there is a wide variety, but it is a variety of names. In fact, the variety does not reflect a biological variety. It is the result of the manipulation of a few basic materials: corn, wheat, rice and potatoes"[10].

This illogical exploitation of agricultural production has effectively blocked, for more than 50 years, the creation of native, or at least varied, crops. This type of agriculture is unsustainable by its intrinsic nature: in fact we cannot imagine a production of intensive standardised goods taking into account the sustainability issues that we face today and are essential in a complex urban design.

In the cases in which the "greening" of brownfield land was implemented, we can observe that the intervention, even on a small scale, results in a number of benefits in the medium and long term.

The first goal of the greening policies of brownfield land was to manage the process of shrinkage reducing land consumption, also in the case of shrinkage in urban areas, due to the problem of soil-pollution and urban-related management issues (public transport, criminality, water pollution, etc.), and secondly, to provide tools to the classes affected by unemployment, so that they might have access to credit and employment. The role of the community was therefore to create a network of neighbourhoods so as to ensure sufficient quantities of goods to be sold in local markets, implementing outcomes and verifying positive externalities such as the reduction of the deficit in ADHD children who lived or studied close to urban green fields (Taylor, 2001). Some choices, exhibited almost a decade ago in the seminal work of Schilling and Logan (Schilling, 2008) may seem outdated or unenforceable in Europe; a choice, however, was crucial, and can be exported and replicated: with the use of local banks as the basis of investment. The big problem with shrinkage was precisely that it was difficult for banks to grant mortgages on urban areas on which it was difficult to build.

What role can agriculture actually play in the regeneration of public space planning for the portions of a city in decline? To find an answer, it helps to read the publications by the FAO (FAO, 2007) on "Urban and Peri-Urban Agriculture" (Henceforth "UPA").

In fact, the United Nations Food and Agriculture agency, distinguishes between two extreme types of UPA: a subsistence-oriented UPA, defined as "social" and a UPA focused on the sale and marketing of the product, defined as "economic".

The first kind is strongly developed in micro-organised sectors in urban suburbs, the second one is focused on the sale of property surplus.

In between these two, we can identify a third form of UPA, which is a "Multifunctional UPA", called "ecological", which aims to create a healthy and environmentally sustainable city that links the logic of the diversification of agriculture and agro-forestry areas and inner suburban buffer areas.

This logic, apparently utopic, also includes a supply of fresh products in markets, the decentralised reuse of municipal waste, links with the eco sanitation of water and sewage and connection with other urban functions, such as recreational and educational facilities.

It is evident that the first type of UPA is the basis for an inclusive and social city such as those found in PVS, while the second involves the advanced functions of a typical business, and has been implemented in areas previously affected by agricultural infrastructure (India, Cuba, etc..).

Instead, the case of a city, transferring its industrial knowledge to a peri-urban agricultural knowledge (or rather, what's called "Kanju" a term that describes "the specific creativity born from African difficulty." according to Dayo Olopade, as opposed to a "European know-how"), is still under discussion, in particular regarding the effects that this produces, and the level of investment, which must necessarily be increased and granted long term.

The above definition of UPA helps us to understand how to design an urban agriculture that is useful and efficient.

Given that it is impossible to envisage a standard model, we can now think about a global utility of agri-urbanistic model in all countries with pre-eminent capitalist vocation that today are living a crisis of heavy-industrial sector (Dorstewitz, 2014). Similar approaches were tested in the Ruhr and in European industrial countries as well as in Latin America, and with some peculiar specificity in Africa, related to vulnerability context and livelihood strategies (Prain and Lee Smith, 2010).

In these cases we can say that the creation of a system of Short Food Supply Chains (SFSC) certainly allows the creation of local and social capital systems at a global level?. On the other hand, the individual market specificities (land acquisition, the role of the public actor, local governance by individual private actors, market presence) varies between different regions.

It seems naive today to imagine that the system of "Canastas Comunitarias" of Latin America is applicable *tout* court on a large scale in Europe but similar systems, tailored for urban needs, are also seen in Italy (in Zolle and Cortilia, for example).

The factory's role is crucial for these systems: on one hand it offers land for growing at ultra-low prices, on the other hand, if properly designed, it offers a "landscape iconography" recognised and accepted by entering functions and businesses.

One of the agri-urbanism risks is indeed a substantial territorial anonymity. The urban garden, is imagined as an old-fashioned green-utopia, poorly economically efficient.

The recognition of a space previously bonded to a productive destination and deliberately converted not into a museum or memorial, but still productive, guarantees the identification of actions that take place inside a continuity in the civilisations, without underlying the tragic passage of crisis and closing.

The "Hyper Local" actions, catalysed by the widespread presence of IT in communities, including rural ones, (on this, see a recent issue of AD) (Willis, 2017) can now allow the sharing of knowledge summarised by the motto "Think Global, Act Local".


## 6. Conclusion

Although European cities do not show such symptoms to make necessary an urgent debate about the "smart shrinkage" as happened in the USA, it seems quite clear that the peri-urban environment is undergoing a violent crisis of identity, which is perceived as being a result of a "catastrophe produced by the consumistic bulimia[11]", already mentioned by Latouche in his own work. It is a phenomenon of a consumeristic race in an unsatisfiable global market, in which it is necessary establish new social and aesthetic values, according to cultural heritage, and the cultivation of public space (Assmann, 2012).

In this way, urban space is mingled with and melts into evolving areas and public heritage, able to preserve the standard meaning both of social sharing, and of productive surplus value. In such an urban space, in a city which has lost its ties with social experience, and moreover is perceived as a place in which to fulfil consumeristic desires, public space, in its most wide meaning, is a place in which to socialise and gain different and complex values.

Urban agriculture, lacking the educational and social value coming from its gratuity, becomes in fact speculation? In the meantime, industrial archaeology, lacking a real connection to the city and to public space, is no more a landscape but a back-drop.

In conclusion, we can see that today urban agriculture is one of the most used practices to redeem degraded soil. Today, major issues are not only about the *if*, but about the *how*. The problems related to soil remediation are central to this field: from Cuba to Japan, from the USA to Kenya, the techniques for securing clean and secure soil for agriculture in polluted areas are increasing in number and quality.

Future targets will be related to the construction of a social background, catalysed by low-cost IT systems, able to redevelop large parts of urban and peri urban soils in an economic and agricultural way. In this way, it becomes clear the urban importance that the philosophy of Expo 2015 in Milan suggests, using the metaphor of the global agricultural

market; philosophy already inquired by Clément in the exhibition *Le Jardin planétaire*, which took place in 1999 in *La Villette*, Paris. But now, in a growing common dimension of public space, it becomes more inescapable. We now need to study, also starting from new themes of sustainability (green finance, ESG Analysis, Impact Investments, Green Bonds, etc.) new tools able to define a possible sustainable future for urban life, able to accept and fulfil the requests of its cultural and physical heritage, and able to offer to the city the care given to a small vegetable garden[12].

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## Notes

* Although the article should be considered a result of the common work and reflections of the two authors, Spada takes primary responsibility for paragraphs 1, 3 and 5, Bigiotti takes primary responsibility for paragraphs 2 and 4.

(1) Cfr: Le Corbusier, (1961) L'urbanistica dei tre insediamenti umani, Milano: Edizioni di Comunità, pp. 76-96.

(2) Concerning the relationship between productive cycles and urban morphology, see Piazzo P., (1991), *Città, insediamento e territorio. Riflessioni su genesi, evoluzione e interazioni*, Roma: Edizioni Kappa.

(3) Romani V. (1983). "Appunti per una approssimazione consapevole ai problemi delle interfacce peri-urbane", in Della Rocca G.A., Lapadula F. (eds). *Rapporti fra agricoltura e urbanistica nello spazio peri-urbano*, Padova: Cedam, p. 125.

(4) The definition of archipelago-city is referred to Indovina F. (2008), *Dalla città diffusa all'arcipelago metropolitano*, Milano: Franco Angeli.

(5) With "shrinkage", it is intended that phenomenon of reduction of the urban environment, as described in Simonetta Armondi (2012), "Gli insediamenti produttivi nelle società post-crescita. Riscrittura di politiche e progetti" in *Planum. The journal of Urbanism*, n. 25, according to which this experiment is described as "an inversion on the paradigm, related to a classical vision about the politics of expansion and the urban growth.[...] It is a notion that recalls a group of economic, demographic and/or social regressive dynamics which take place in the urban space".

(6) Clemént G., (2005). *Manifesto del terzo paesaggio*, Macerata: Quodlibet, p. 63.

(7) Cfr: *Lotus International*, n. 149, pp. 54-57.

(8) It is referred to Armondi, especially the paragraph Retrofitting territories: smontare il nesso abbandono/riuso in which the subject of rescuing and conforming of the abandoned buildings is not analyzed according to the mere architectural respect, but as an useful attitude, which permits "to focus on different possibilities of understand the meaning of the productive settlements concerned by under-use phenomena, without automatically working on the sequential connection disuse/reuse".

(9) *Ibidem*, p. 64.

(10) Website reference: Bevilacqua, P. in http://archivio.eddyburg.it/article/articleview/1624/1/286.

(11) Latouche, S., (2012). *Per un'abbondanza frugale. Malintesi e controversie sulla decrescita*, Torino, Bollati Boringhieri. Already mentioned in Nicolin, P., (2012) "Il bello dell'agricoltura urbana", in *Lotus International*, n. 149, p. 43.

(12) It is intended to paraphrase the suggestion made by Richard Ingersoll, according to which the city "could be handled with the same care as a garden". Translation by the authors. *Op. Cit.* p. 119.

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