

Birkhäuser
Basel

Urban Agri- Cultural Heritage

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Showcasing
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Intangible Agricultural Heritage as a Resource for Sustainable Contemporary Cities

Paola Branduini

The statement in the title sounds like an oxymoron, an unsolvable contrast. How can the contemporary city, so much projected toward the future and technology, look at its agricultural past and implement a strategy for the protection and enhancement of its heritage? By recognizing the consistent presence of heritage in our society and the benefits it brings to the contemporary age, the oxymoron can be reconciled. This makes us look at sustainable development with different eyes.

The sustainable development goals (SDGs) and the Paris Agreement recognize that cultural heritage can inform human action in supporting resilience and sustainability. The United Nations 2030 Agenda for Sustainable Development (United Nations 2015) defines 17 SDGs and offers an evidence-based framework for promoting a systemic understanding of the synergies and dynamics between the economic, social, and environmental dimensions of sustainability. In this regard, nature and culture connect the various SDGs to one another. Their integration often finds form in the rich biocultural diversity of the world's heritage, defining our spiritual and physical relationship with the planet in harmonious ways (ICOMOS 2019, 9).

Key to understanding this potential is an appreciation of the breadth of the concept of cultural heritage. Over time, the meaning of cultural heritage in professional practice has expanded from single monuments and sites identified

as objects of art to cultural landscapes, historical cities, and serial properties. Contemporary practice further extends the concept beyond tangible heritage to the intangible dimensions of heritage.

In contemporary cities, although tangible agricultural heritage (such as farmsteads) has been consistently cancelled and the intangible heritage (such as farmers with their knowledge) has moved to rural areas, agricultural heritage is still present in urban and peri-urban areas, where it needs to be recognized, preserved, kept alive, and transmitted to future generations. This paper focuses on intangible agricultural heritage, which is mostly neglected in contemporary cities and less developed by scholars, as well as on the actions to enhance it for sustainable development. First, attention is focused on the bond between the two heritages. Second, an interpretive approach to assess the degree of permanence of agricultural heritage in the city is developed. Third, the different roles of the actors in the transmission of intangible heritage are clarified. Finally, the benefits to a sustainable city are outlined and suggestions to implement them are provided. The considerations stem from different studies done by the author and other scholars on London (Laviscio 2020), Seville (Prados and Santiago-Ramos 2020), Granada (Castillo Ruiz and Matarán 2020), Mexico City (Alcántara Onofre 2020), and Australia (Lennon 2020). The examples to support the theory are taken from the agrouban landscape of Milan.

Tangible and Intangible Heritage: A Tight Bond

Intangible heritage includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, the performing arts, social practices, rituals, festive events, and knowledge and practices concerning nature and the universe (UNESCO 2003). Among these, agricultural intangible heritage comprises the techniques and skills to produce food for human consumption and to construct agricultural buildings and tools; in addition, it includes local dialects, music, and oral literature that have emerged from nonwritten traditions (CEMAT 2003).

Agricultural intangible heritage is strictly related to the tangible one and, despite many radical transformations, is still perceivable in many cities. Today's landscape of the Milan plain, the division of the agricultural land, fields flanked by roads, canals, tree rows, and hedges, is based on the medieval land reclamation technique developed by Cistercian monks. It was continuously modified by small and precise changes over the centuries in order to increase arable land and improve its efficiency. It is the result of techniques that exploited the abundance of water and allowed the cultivation of the land that otherwise was not productive. This land division is still perceivable also in the peri-urban areas, where residential and industrial uses are mixed, but where tiny plots of agricultural land persist. The small roads of the neighborhoods often follow the former agricultural layout and its names. Open canals flanked by hedgerows still exist in the urban and peri-urban parks. Courtyard spaces of urban farms of the local four-sided farmstead typology *cascina*, delimited by specialized agricultural buildings (residence, stables for horses and dairy cows, hay barn, milk factory, granary), convey inclusion and separation from traffic, as well as acoustic and visual insulation from city noise. They frequently host celebrations, poetry and song performances in dialect. Moreover, in every agricultural farm in Milan, the ancient rite of the blessing of the animals by Saint Anthony and the construction of a bonfire to drive away the cold of winter are celebrated annually. These events gather hundreds of citizens from the neighborhoods. Traditional Milanese dishes are highly sought after in

agrotourism farmhouses, and Michelin star-rated restaurants go to the farms to find traditional recipes, prepare dishes with local agricultural products, and offer them under their names in dialect.

In these examples the tangible heritage reveals the intangible, and the intangible brings the tangible to life. The visible parts of the agricultural techniques that shaped the landscape and the agricultural building typologies provide evidence of agricultural specialization and offer places where traditions can be perpetuated. Agricultural variety can be tasted in the local food. The intangible heritage is the seed of contemporary culture and depends on the communities that reproduce it (UNESCO 2003), thus, we are going to focus on it.

Permanence of Intangible Agricultural Heritage

As mentioned in the introduction, the intangible heritage of agriculture is threatened by the expansion and densification of the city, by changes in the economy, and by new needs of society. If we recognize intangible agricultural heritage as an asset for urban communities, how can we identify it and evaluate its integrity and its benefits for society? The criteria of authenticity and integrity adopted by UNESCO for assessing the outstanding universal value of sites can help the investigation: in the Operational Guidelines for the Implementation of the World Heritage Convention, *integrity* is defined as “the measures of wholeness and intactness of the natural and/or cultural heritage and its attributes.”



Fig. 1 High permanence of heritage and its transmission: traditional water meadows are explained by the farmer to the public at Tavernasco farm.

These attributes, which are “form and design, material and substance, location and settings, traditions, techniques, management system, language, spirit, and feeling,” are used to define *authenticity* (UNESCO 2019, 27, arts. 82 and 88). The degree of permanence is given by the coexistence of many of these attributes. The following examples illustrate different degrees (high, medium, and low) of the permanence of intangible agricultural heritage in relation to the tangible one.

1. As a high degree of permanence we could consider a mixed Milanese farm (dairy and cereals), composed of agricultural buildings and the fields around them, whose position and dimensions have remained practically unchanged for centuries (location, form, and design). It maintains the long-standing proportion between arable land and meadows. The farmer cultivates the land with traditional techniques adapted to the region, like *marcita* (water submersion for meadows) and rice, and uses old seed varieties (tradition and techniques), creating a green landscape in winter and a water landscape in spring (feeling). The products are sold on the farmstead or at farmers’ markets (management system) or used for catering by preparing recipes handed down within the family (other forms of intangible heritage: recipes) [Fig. 1]. Educational workshops and tours to the fields explaining the cultivation and transformation of agricultural products take place on the farm, valorizing unused building parts. Former employee dwellings may be transformed into flats for agrotourism. Old traditions like the blessing of animals are kept alive, inviting citizens to participate (spirit).

In this case there is a high integrity in the permanence of both tangible and intangible heritage. The visual evidence of tangible heritage strengthens the perception of intangible heritage and keeps both alive (Branduini and Carnelli 2021). They are transmitted to the next generation, and the valorization in agrotourism allows the maintenance of traditional cultivation and its products (Branduini et al. 2020; Scazzosi 2020). The proximity of the city has been turned into an opportunity: innovation enhances permanence instead of erasing it (Scazzosi 2018).

2. A medium permanence of agricultural heritage would be a farm where water meadows were turned into cornfields to avoid the manual labor of preparing the soil’s slope (use); flooded paddy fields were

turned to dry fields in order to limit the number of mosquitoes close to the city (practice) and to improve relations with the neighborhood; or cornfields were transformed into wheatfields due to water availability limited by the city (use) [Figs. 2a–b]. The intensive crop production changes the field division and dimension, cancels the finely ramified irrigation network, and eliminates hedgerows (form and design), but generally maintains the long-term structures (location and setting), such as terracing, the primary water system, trees, and hedgerows along canals (Scazzosi 2018).

Similarly, when farmhouses are restored and converted into a residential buildings, the historical matter is conserved and can be read (material and substance), but the new functions cancel the readability of the reasons the buildings were made [Fig. 3]. These become a container of new functions, bereft of the purpose that made them necessary (use and function). Nevertheless, the material and spatial characters provided by buildings can contribute to new contemporary sociability, to convivial or entertainment events; the setting provided by the agricultural fields, usually managed by a new farmer, last.

In both examples, the physical part of the heritage (fields, trees, canals, buildings) is permanent but the historical relationships that tied it have changed. The beneficial effects of the landscape are reduced: The transmission of a historical and consolidated (intangible) agricultural technique that has contributed to forging the landscape, to maintaining the vitality of the soil and which has characterized it for centuries has been partially modified.

3. Finally, a low permanence is detectable in a new urban neighborhood built in a previously agricultural area. The contemporary city destroys the tangible agricultural heritage but consciously or unconsciously keeps the intangible: the irrigation canals have been buried, the historical buildings demolished, but the streets follow the former subdivision of agricultural land, and toponyms recall. New roads destroy hydraulic structures and canals (material and substance) and interrupt the ancient structure (form and design, use and function). But the memory of the demolished farmhouses remains in the toponyms and metro stops of the district; the street names recall personalities of local agrarian history (language) [Figs. 4 a–c]. New Restaurants and taverns offer traditional dishes with dialect names,



Figs. 2a–b Changes in practice form new landscapes: Rice seeding with water (traditional technique) and without water at Battivacco farm



Fig. 3 Permanence of tangible heritage and loss of intangible heritage: Cuccagna farm in Milan



Figs. 4a–c
Agronomist Domenico Berra's house, the effigy, and street dedicated to him: in 1811 he wrote 'Dei prati del Basso milanese detti a marcita,' the handbook for implementing the agrarian technic of water meadows, a successful practice all over Europe at that time. He experimented on the meadows around his house, where there are no longer any agricultural fields. Only intangible signs recall the memory of his role in the implementation of Milan agriculture.

using local products from urban gardens and local farmers. The horticultural practice and knowledge exchange among gardeners can give new life to former agricultural and now abandoned areas (brownfields) (Branduini 2016) [Fig. 5]. The property of the intangible heritage of being movable and replicable allows it to be repeated by new and different actors. The permanency analysis confirms the strong bond between tangible and intangible heritage. Clear evidence of their role is provided when there is a high permanence degree of both. Intangible heritage is sometimes less evident but still present. Finally, in the medium degree of permanence, when tangible heritage seems persistent, we should pay attention to the intangible heritage and improve the awareness of actors in transmitting it.

Intangible Heritage's Actors

Actors are the communities that reproduce the practices “in response to their environment, their interaction with nature and their history” (UNESCO 2003, art. 2). We can distinguish the bearers of agricultural traditions (role models), those who attend and benefit from them (spectators), and those who try to reproduce them (replicators).

Role models are the generations of farmers who keep alive the agricultural practices handed down to them. They follow good agricultural practices, repeat traditional techniques and gestures, follow the saints' calendar to drown water meadows, call agri-

cultural tools and fields by their local names, sing folk songs in dialect, and thank saints for cattle health and good harvest.

Spectators are inhabitants or occasional visitors who watch and attend to those practices with enthusiasm and awe. Farmers teach horticultural practices to new gardeners and perpetuate the religious or heathen rites. Groups of citizens take over the practices and aspire to become replicators. Sometimes religious celebrations such as the blessing of the animals or the bonfires mentioned above are organized by the citizens without a farmer. The celebration of agricultural rites strengthens the sense of community and fosters cohesion to the point that the presence of the role model and of the object and men of celebration is not necessary anymore (Branduini 2020).

New generations of farmers yearn to become new role models: they take up the baton from their parents or aged friends and reapply the practice with the enthusiasm and creativity typical of new generations. They understand the contemporary needs of urban society and are adaptive or proactive in offering new services and products to their fellow citizens. From mere replicators of agricultural traditions they become conscious role models of new integrated approaches between agricultural heritage and the urban community's social demands. These are the new farmers flourishing in the context of urban agriculture, who can perform the fundamental role of both heritage spokesmen and modernizers for the next generation.



Fig. 5 New urban vegetable gardens (left) keep the name of the former farm (right), now residence. Vegetable gardens of former Albana farm

Intangible Agricultural Heritage for Sustainable Cities: Actions to Enhance It

Agricultural intangible heritage, as demonstrated, is still present in contemporary cities even if it is at risk. It can reinforce the social, economic, and environmental dimension of sustainability, as the actions of identification, transmission, and maintenance can strengthen and enhance its potential. Heritage components, risks, and actions are listed in the table [Fig. 6].

Agricultural intangible heritage can strongly contribute to social cohesion and enhance the sense of identity, stimulating local communities and young people. It can be a driver in using innovative adaptive (re)development solutions when restoring built

heritage, reducing carbon emissions, and introducing environmentally friendly solutions. It can stimulate jobs based on culinary tradition, spread local recipes and fruit and vegetable varieties, and improve nutrition knowledge (Jelinčić and Glivetić 2020, 9). On a global level, heritage conservation practice is increasingly endorsing innovative tools that promote adaptive and systemic approaches to better manage climate change (ICOMOS 2019, 9).

To keep intangible assets alive and reinforce sustainable opportunities, citizens should strengthen and create heritage communities under the stimulus of the Faro Convention (Council of Europe 2005). They can evolve from spectators to replicators of agricultural practices; young farmers can progress from replicators to new agrouban role models. This can be fostered by enhancing people’s involvement in heritage recognition, understanding, and care, in school education at all levels (practical activities, interviews and dialogue with older people, and historical memory of the places), in leisure time activities (gardening, cooking classes), and in professional training and job creation (courses in good agricultural practice, agroecology, organic horticulture, management of irrigation systems, etc.).

Thanks to the implementation of such initiatives, the contemporary city can transform its agricultural past into a valuable resource for empowering its population. This propels passive strategies of heritage protection toward an active heritage community engagement. ■

Fig. 6 Enhancing intangible heritage through actions in urban agriculture. The table illustrates intangible and tangible components of the heritage according to the dimensions of sustainability, the risks it is exposed to, the possible actions to preserve it, transmit it in the short term, and maintain it in the long term.

Dimensions of sustainability	Heritage	
	Intangible heritage	Tangible heritage components
Social	• Languages • Dialects • Idioms, common sayings	Roads, places, tools
	Traditional music and dance	• Musical instruments • Places where dancing occurs, e.g., in the courtyards, or in open spaces close to farmsteads
	Events to celebrate or propitiate a good harvest	• Fields • Courtyards
Economical	Skills in repairing artifacts	Hydraulic artifacts: terraces, canals, slopes, furniture
	Traditional recipes	Food production (cereals, legumes, sausages, cheeses)
Environmental	• Seeds variety of vegetables and flowers, both heirloom and local varieties • Local animal breeds for food production (e.g., poultry, pigs) • Agro-biodiversity	Garden vegetables, fields and garden hedgerows, tree lines
	Knowledge of natural resource (water, soil, trees, crops) management	• Natural resources (water, soil) and tools • Hydraulic artifacts
	• Technical cultivation skills as intercropping between tree and herbal plants (coltura promiscua) • Tying vine to tree (married vine) • Overseeding a legume on a cereal	• Tree alignments interchange with herbal crops (Coltura promiscua) • Vine ties to trees (married vine)

	Threats – risks	Actions		
		Identify, collect, census	Transmit, involve	Take care, maintain
	Loss of people able to speak a dialect or language	• Search archives for the histories of old names • Make video-record interviews (to collect dialect sound, gestures and expressions) • Make audio-record language exchanges between speakers • Gather/create a dictionary and grammar of the dialect from remaining speakers	• Add old toponyms (collect from interview and from old maps) to places on site and on maps (add old one to current one) • Organize spectacles or readings in dialect	Educate children to old language with immersion language programs
	• Loss of dancing and playing skills • No intra- and intergenerational transmission	• Search archives for information and recorded performances of traditional music and dance • Interview older people • Solicit and collect recordings, photos, costumes, etc., from locals	• Dance, sing, and play music • Record performances on video • Offer compact courses for dance and play • Encourage events, promotion by citizens' association with farmers • Communicate events via social networks, local digital and print newspapers	• Organize festivals • Stage small events throughout the year in urban courtyards or in the middle of the fields
	• Loss of farmers to continue traditions • Loss of intergenerational knowledge transmission	• Interview local farmers • Make video record on ceremony re-enactments • Collect artifacts dedicated to celebration	• Reviving ceremonies by citizens' association involving farmers in repeating traditional events • Organize events through social neighborhood networks • Organize common lunch during/ after the celebration • Communicate events via social networks, local digital and print newspapers	• Compile an events calendar • Clean and repair the tools employed • Consolidate gestures and rites
	• Loss of handcraft technique • Loss of intergenerational knowledge transmission	• Interview old local farmers • Document and illustrate the techniques (how to do...)	• Create dedicated courses for job regeneration (for those unemployed or with mental health issues) • Teach techniques in professional schools • Create hobby courses for those unemployed • Organize common lunch during/ after the celebration	• Create learning-by-practice days to involve citizens (theory and practice) • Plan a volunteer activities' calendar
	Loss of knowledge, ingredients, and culinary skills	• Interview agricultural families' women • Launch recipes collection on social networks • Search for particular processing techniques/recipes in older books or diaries	• Create and offer short culinary courses in urban farmsteads • Produce online or printed recipe book • Add the provenance of ingredients to restaurant menus • Teach dish preparation in professional schools • Teach processing cheese/sausages/ poultry preparation following traditional techniques	• Connect food production to recipes • Connect restaurants with the local farmsteads' production • Agro-tourism • Encourage farmers to sell products with recipes • Encourage farmers to process cheese/sausages/poultry following traditional techniques
	Loss of biodiversity, local vegetable species' varieties and animal breeds	• Create a seed bank • Interview horticulturists or nursery-men for knowing traditional techniques useful today (intercropping, local variety, etc.)	• Develop and offer courses for recognizing heirloom varieties; learning multiplication and intercropping techniques; feeding animals with fresh grass (instead of corn silage) • Develop professional or technical courses for local farmers or interested non-farmers • Develop courses for gardeners to expand interest in local or heirloom varieties • Involve experienced farmers to explain practically traditional techniques during the courses	Encourage farmers to produce and sell local and heirloom varieties and races at farmers' markets and explain their qualities to the public
	• Loss of good balance in natural resources exploitation • Loss of natural resources • Canalization abandonment and degradation • Abandon of manual/gravity irrigation techniques (without external energy input)	Interview local farmers practicing traditional irrigation techniques	Develop courses (as above) regarding traditional water management and cultivation techniques	Recover canals and encourage research to match traditional skills with new technologies
	• Monoculture • Crop simplification • Loss in biodiversity and landscape variety	• Interview local farmers that are still using traditional techniques of mixing crops (coltura promiscua, married vine, overseeding ...) • Identify and map relict landscapes • Search for plants associations (trees + bushes + herbs) fighting against parasites and invasive insects	• Develop courses (as above) to explain the environmental and landscape benefits of mixing crops • Add signals/panels/explanation on the cultural and ecological values of relict landscapes	• Encourage organic farmers to use these techniques • Develop and sell products that enhance the mixture of seeds (mixed cereals flour and bread)

Intangible Agricultural Heritage as a Resource for Sustainable Contemporary Cities

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