

22 Food heritage as a catalyst for environmental sustainability: reflections on the cultural value imbued by citizens to food and its role in supporting scientific debate about food security

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Abstract

The last decade has seen a growing pressure for all cultural institutions to embrace sustainability and embed its principles and agendas into day-to-day operations. Within this context, this chapter discusses the potential of food heritage to constitute an interesting interface between environmental and cultural sustainability. Some of the most important developments that have led to the so-called ‘heritage turn’ in food studies and the emergence of the transdisciplinary and global food heritage discourse will be pinpointed and the direct connection between the notion of food heritage and sustainability will be underlined. Drawing from research conducted for the EU-funded BigPicnic project, this chapter will reflect on issues such as traditional knowledge, food memories and food well-being. It is argued that the notion of food heritage can be an important catalyst for discussing global and local challenges to sustainability and promoting food security. This can only be achieved by looking at cultural heritage and environmental sustainability together and by considering food’s tangible and intangible heritage dimensions and values along with its multisensory elements.

Introduction

In the last two decades, the concept of food heritage, often conceived within the wider notion of intangible cultural heritage (ICH), has gained a lot of currency in the international heritage discourse. The growing pressure for all types of organisations to embed sustainability through their long-term planning and day-to-day operations is affecting also cultural institutions despite the previously dominant notions that tended to separate nature/environment from culture.

Overcoming this nature–culture divide, food heritage seems to constitute an interesting interface

between environmental and cultural sustainability. Focussing on the role of food heritage in citizen's relationship with food and drawing from research conducted for the BigPicnic project, funded by the European Union's Horizon 2020 Research and Innovation Programme, this paper aims to underline the significant connection and interplay between cultural and environmental sustainability in the context of food heritage. Research conducted for the aforementioned project demonstrated a strong link between food culture and environmental concerns expressed through sustainability as a value.

The aim of this chapter is to critically reflect on the importance of the notion of food heritage to the heritage sustainability discourse and to explore how the cultural and social values that citizens attach to food can contribute to discussions of and scientific debate on food security. More specifically, we investigate how foodways, traditional knowledge and practices, food memories and the social context of eating as well as food well-being underline the connection between cultural and environmental sustainability. We argue that food systems contain both intangible and tangible aspects that go beyond science, technology and politics/governance by touching on human behaviour that reflects cultural values and identities. This relationship underlines the importance of better understanding how heritage and culture can constitute a catalyst for environmental sustainability.

The arguments presented in this chapter are based on qualitative and quantitative evidence and a meta-analysis, which synthesised findings from studies conducted by 15 botanic gardens during the co-creation of exhibitions, science cafés and other activities as well as post-opening. What makes the findings even more pertinent to the discussion of sustainable heritage is the fact that the heritage dimension of food did not feature in the initial aims and objectives of the project. Nevertheless, this dimension emerged strongly through the engagement of the project partners

with a range of citizens – an engagement that was guided by the responsible research and innovation (RRI), co-creation and team-based inquiry (TBI) approaches (see below for an explanation of these terms). This paper, therefore, intends to unweave from the aforementioned process the cultural associations and meanings attributed to food by various citizens and their importance in defining eating habits, nutritional choices and attitudes towards food production and consumption that, at the same time, have an impact on environmental issues and concerns. Furthermore, a very important finding of the BigPicnic research project is the recognition of food heritage as one of the interconnected concepts that define food security¹ and the impact that such projects can have for promoting recommendations to policymakers on sustainable heritage. This analysis strongly supports the argument for culture being recognised by cultural heritage policies as the fourth, so-called, pillar of sustainable development.

This chapter starts by contextualising the notion of food heritage and particularly its relationship with and contribution to discourses of sustainability. This section emphasises the importance of the growing literature on food heritage (within the wider heritage discourse) but also underlines the necessity for transdisciplinary approaches for addressing heritage sustainability issues and challenges, both global and local. A short overview of the BigPicnic project is presented, followed by the research methodology that led us to the findings that will be discussed in this chapter. We then focus on evidence that addresses the aspects of food heritage – such as traditional knowledge, food memories and food well-being in the context of diaspora communities – and examine how these support the role of food heritage in motivating, triggering and promoting environmental sustainability through food security.

The notion of food heritage in the context of heritage sustainability discourses

Before proceeding to discuss the specific example of the BigPicnic project, it is essential to summarise the relationship between the notion of food heritage and its central role in the growing discourse on heritage sustainability. Table 22.1 (see Appendix) also outlines the definitions of certain important concepts and terms that are central to the discussion of this topic.

Sustainable development and the concept of intangible cultural heritage

The notion of sustainable development has been deemed as ‘the most important guiding principle for the 21st century’ (Albert, 2015, p. 11). In the last couple of decades, the idea that heritage could be a driver, a vector or a tool for sustainable development has emerged strongly through ideological shifts and a range of new approaches, practices and policies in both the heritage sector and academia (Clark, 2008; Barthel-Bouchier, 2013; Albert, 2015, 2017; Auclair & Fairclough, 2015; Dessein et al., 2015; Labadi & Logan, 2016; Larsen & Logan, 2018). This was considered a ‘profound transformation’ (van Oers, 2015, p. 189). To begin with, the discourse of both sustainability and heritage has some common characteristics. Since 1987, sustainability has been widely described as ‘meeting the needs of the present without compromising the ability of future generations to meet their own needs’ (UN, 1987). Discourses on heritage preservation on the other hand have been underpinned by the notion of intergenerational equity that emphasises the need to manage cultural heritage (that comes from the distant or even recent past) for both the present and the future generations (Throsby, 2002, p. 107; Auclair & Fairclough, 2015, p. 9). Heritage has been deemed to always act as a bridge between culture and the environment (Clark, 2008, p. 94). With the rise of environmental concerns such as climate change, Harvey and Perry

(2015, p. 3) have described the merging of the two as the 'heritage–climate change nexus' in which heritage involves a 'present-centred and future-orientated processing of a tangible and intangible sense of the past'. Heritage and sustainability also share common ground when both are perceived as ongoing processes and as being people-centred (Auclair & Fairclough, 2015, p. 9). Nevertheless, some scholars have been sceptical of the link between heritage and sustainable development and have criticised the division between natural and cultural heritage (Bushell, 2015, p. 504). Going even further, considering the inevitability of change (environmental, social, political) and the extent to which both natural and cultural heritage management have not adequately addressed what they specifically define as 'the future', it has been suggested that conventional heritage practices are indeed unsustainable (Harrison et al., 2020, pp. 485–486). Notwithstanding, a significant development from the initial conceptualisations of sustainability was the recognition of culture as a distinct pillar in addition to the original three 'pillars' of environment, economy and society (Hawkes, 2001; Duxbury & Gillette, 2007; UCLG, 2010). UNESCO had long argued that sustainable development and the blossoming of culture are interdependent (UNESCO, 1998, p. 13) and later directly addressed the importance of introducing cultural heritage in the sustainable development agenda (UNESCO, 2013). As a consequence, within the heritage sector, the sustainability paradigm consists of the four cornerstones of environmental, economic, social and cultural development. Heritage can be viewed both as a vital component of the so-called cultural (fourth) pillar of sustainable development and also a contributor to the other three pillars (Clark, 2008, p. 95; Albert, 2015, p. 11).

Initially, it was thought that the sustainable development goals (SDGs) adopted in 2015 by the United Nations as an international instrument for the implementation of its 2030 development

agenda (Robert et al., 2005) did not adequately address the role of cultural heritage for sustainability (Petti et al., 2020, pp. 6–7). However, the heritage sector has more recently come to realise that cultural heritage can contribute to achieving most of these goals (Engels, 2017, p. 50), while various heritage organisations have also strived to address the SDGs more effectively through their work (ICOMOS, 2017, p. 7; UCLG, 2018; ICCROM, 2020; McGhie, 2019, 2020). On an international level, UNESCO (as a normative and standard-setting organisation) has pursued in the last decade to operationalise the sustainability concept through culture by directing its policies and practices through the axes of both ‘heritage’ and ‘creativity’ (van Oers, 2015, p. 192).² Indeed, ‘heritage’ has also been included as one of the seven interrelated policy dimensions in the Culture for Development Indicators Suite methodological toolkit (UNESCO CDIS, 2020).

As we stress in the next section, the notion of food heritage is inextricably linked with the emergence of the concept of intangible cultural heritage (henceforth ICH; see Table 22.1). Although introduced earlier by UNESCO, the notion of ICH achieved global recognition in 2003 with the adoption of the ‘Convention for the Safeguarding of Intangible Cultural Heritage’ (henceforth ICH Convention). The ICH Convention acknowledged the importance of ICH as a ‘mainspring of cultural diversity and a guarantee of sustainable development’ in the face of threats such as globalizing processes and social transformations (UNESCO ICH Convention, 2006). It was widely acknowledged that certain intangible heritage practices and expressions can generate revenues (e.g. through cultural tourism and the market value of craftsmanship) which in turn can secure their viability while the process of safeguarding can protect their cultural character from globalising processes that homogenise and over-commercialize (Erlewein, 2015, p. 75). With the amendment of June 2018, the relevant ‘Operational Directives’ of the ICH

Convention have clearly highlighted the contribution of intangible heritage to the social, economic and environmental pillars of sustainable development as well as peace (see Table 22.3). In addition to the concept of the universal heritage promoted by UNESCO, the common European heritage promoted by the Council of Europe has also recognised ICH as a factor in sustainable development and cultural diversity (Brown, 2018, pp. 108–109). Scholars from natural history museums have even suggested that the term ‘intangible natural heritage’ would be better placed to address human relationships with nature that are passed down from generation to generation encompassing, among other things, ecological food webs, human food security and health and global climate (Dorfman, 2012, p. 4).

Another aspect that is vital to pinpoint when identifying the parameters that enable heritage to be sustainable is the active role of citizens in decision-making. Supporting bottom-up approaches (as opposed to ‘top down’) in heritage practices, management and planning is deemed to work better as this model recognises the needs of and gives a voice to the various ‘non-expert’ stakeholders and is, therefore, more responsible and ethically sound (Smith, 2006, pp. 34–37; Alexopoulos, 2013, p. 70; Schofield, 2014, pp. 5–6; Logan, 2016, pp. 256–257). It is increasingly acknowledged that only through such participatory and inclusive approaches both cultural and natural heritage can be sustained in the future (de Merode et al., 2004, p. 9).

The emergence of food heritage

When reflecting on food, one can underline that the production, elaboration and consumption of food is a process ‘common to all human beings’ and we all must eat to sustain ourselves (Di Giovine & Brulotte, 2014, p. 1). Belasco (1999, p. 27) has noted that apart from being one of the essentials of life, our biggest industry and most frequently indulged pleasure, food is also a cause

of disease and death. Food is a 'universal medium' (Watson & Caldwell, 2005, p. 1) and among the most foundational elements of culture (Timothy & Ron, 2013, p. 275). However, beyond sustenance and nutrition, food is 'packed with social, cultural and symbolic meanings' (Bell & Valentine, 1997, p. 3) with eating being a cultural and social as much as a biological activity (Food & Foodways, 1985, p. I; Watson & Caldwell, 2005, p. 1). Bessière (1998, p. 24) has underlined that because both food and cooking are culturally determined they place the eater in a social universe and a cultural order.

The parameters that can render food as a form of cultural heritage extend, however, beyond its social value. Firstly, food-related traditions and cultural values can be situated within the past-present-future nexus, which is a common way to conceptualise heritage. This happens as there exists a value linked to culturally prescribed ways (e.g. recipes) of making food with people being conscious of the history behind this process and the relevant inherited traditional practices (Carr et al., 2018, p. 145). Already in the 1990s, researchers employed the notion of food or culinary heritage in order to describe the transmission of culinary know-how, the preservation of traditional dishes, the connection to culinary roots and the notion that eating so-called natural or traditional products enables the eater to appropriate and embody the nature, culture and identity of an area (Bessière, 1998, p. 25). Furthermore, it is argued that food constitutes a form of heritage exactly because it is integral to the formation, performance and confirmation of identities: personal, group, regional, national, etc. (Di Giovine & Brulotte, 2014, pp. 1–4). Food is also a strongly mnemonic and sensory device that offers a sense of place and belonging (Carr et al., 2018, p. 145) and offers, as an 'edible chronotope' (a sensory space-time convergence), experiences that bind people together through space and time (Kirshenblatt-Gimblett, 2004, p. xiii). Other scholars have viewed certain types of foods as 'edible souvenirs' exactly because

their consumption can elicit precise memories of people, places and events in the past (Di Giovine & Brulotte, 2014, p. 18). The aforementioned qualities have led many scholars to emphasise that food as an element of heritage is fundamentally different from other forms of heritage because it is multisensory (its consumption and preparation call for the use of all five senses: sight, smell, taste, touch and hearing) and it is both tangible and intangible (Ron & Timothy, 2013, p. 235; Counihan, 2014, p. 220; Matta, 2019a, p. 51). Therefore, food has been considered to be culture, materiality and a central element of sociability at the same time (Carr et al., 2018, p. 145). However, food can also be part of a heritage-making process for future generations, and this has been observed in efforts such as the safekeeping of crop seeds in the Svalbard Global Seed Vault – a ‘final backup’ for securing future food supplies and agrobiodiversity (Harrison, 2017, p. 86).

The systematic academic study of food only emerged from the second half of the 20th century despite the fact that many disciplines were directly or indirectly preoccupied with the study of eating and cooking.³ About a decade ago, it was noted that although food heritage has been studied in different disciplines, using various approaches and methodologies, it had just emerged as a new field of research (Bessière & Tibère, 2011). This was followed by a growing literature that articulates food as heritage and various national and international attempts to claim food-based heritage which altogether have been described by Demossier (2016, p. 89) as a worldwide ‘food heritage fever’ and reflect what has been deemed a ‘heritage turn’ in food studies (Geyzen, 2014). The beginning of the 21st century brought the worldwide phenomenon of food heritagisation and patrimonialisation, and together with the recognition of food as an element of ICH by UNESCO, these developments have both placed food cultures into heritage frameworks (Di Giovine & Brulotte, 2014; Matta, 2016, 2019b; Romagnoli, 2019, pp. 163–165). Although

'alimentary heritage' was not specifically identified by the ICH Convention, food practices were gradually included on the ICH list under the condition that they are part of a process from production to consumption (rather than isolated practices) and that they intersect with the five cultural domains identified by the convention (Csergo, 2018, pp. 450–451; see Table 22.1). So, what is food heritage specifically? A general overview of the food heritage elements inscribed shows that there are examples of food preparation out of various ingredients and using particular practices and tools; food that is prepared as part of specific rituals, religious or cultural celebrations and festivals; traditional practices of food production and consumption that characterise the foodways of specific groups of people, regions or nations.⁴

A very significant aspect of the framework supported by the UNESCO's ICH Convention is the emphasis on people as tradition bearers and practitioners, i.e. what is important to preserve is the skills and the know-how of the people rather than the intangible (or tangible, for that matter) elements surrounding heritage. This has been exemplified in various cases ranging from the Neapolitan 'Pizzaiuoli' (UNESCO ICH, 2020), the hereditary Iemoto Masters of the Japanese Tea Schools (Cang, 2008) and the Mexican traditional female cooks (Matta, 2019b) to the notion of olive growers as 'Mediterranean food ambassadors' (Alonso & Krajsic, 2013). What seems to be important in most of these examples is not the food itself but the associated cultural practices which promote commensality (eating together), communality, neighbourliness and hospitality and are accompanied by various forms of music, dance, poetry, customs, legends, tales, art and craftsmanship. Furthermore, traditional agriculture and its resulting farming landscapes are often considered a form of cultural heritage, as demonstrated by the inclusion of, for example, traditional rice terraces in China and the Philippines in both the UNESCO's World Heritage List

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and the FAO's 'Globally Important Agricultural Heritage Systems' (GIAHS) with the latter containing 62 designations from around the globe since 2005 (FAO, 2020).

Food heritage and sustainability

Food has always had an important role in global challenges and politics that affect the environmental, economic and social aspects of sustainability. Many concerns have been raised and several national and worldwide interventions have addressed the impact of the food industry, food consumption and production on issues such as the climate crisis, environmental pollution, threats to biodiversity, the generation of food waste, food poverty and deprivation, the obesity pandemic, etc. (Rehber, 2012, pp. 353–354; FAO, 2015). Food has also played a key role in pandemics of foodborne diseases from the so-called 'mad cow disease' in the UK and the avian flu (Watson & Caldwell, 2005, pp. 2–4) to the most recent outbreak of the COVID-19 virus (Smith & Wesselbaum, 2020). Debates about these global challenges have also fuelled food activism movements that, among other issues, oppose genetically modified organisms, promote organic and fairtrade products or advocate for 'slow food' (Mann, 2014, pp. 1–2; Siniscalchi & Counihan, 2014, pp. 3–4). The efforts to achieve sustainable food consumption have gained a new dynamic with the emergence of the so-called green, political and ethical consumer (Boström & Klintman, 2009). We have argued elsewhere (Kapelari et al., 2020, pp. 14–15) that the worldwide discourse on food security has, to a great extent, evolved with little reference to the discourse surrounding the cultural aspects of food and the notion of food heritage. This is despite the fact that food security has been addressed by foodscape studies (Vonthron et al., 2020, Table 22.2) and despite the recognition that food security is directly linked with, for example,

intangible cultural and natural heritage (Dorfman, 2012, p. 4; Hosagrahar, 2019, p. 14) or city development planning (Pearson & Pearson, 2016, p. 175).

Research on the phenomenon of food heritagisation has demonstrated various examples of how food and its role in cultural sustainability are intertwined with complex economic, social and political issues. It has been argued that through processes of heritagisation, food is often being rediscovered and reinvented as cultural heritage both as a means of local development and as a bearer of collective territorial identities (Grasseni, 2011). Culinary tourism, which can take various forms such as wine tourism, food routes and trails and agritourism (Timothy, 2016, pp. 14–17), is seen to contribute to cultural sustainability (Reynolds, 1993). At the same time, it has been argued that the so-called ‘new tourist’ (van Westering, 1999, pp. 78–79) is more culturally orientated and environmentally aware and therefore culinary encounters and gastronomy constitute ‘a force in sustaining, developing and promoting heritage’ (ibid, p. 81). What’s more, comparative regional studies have shown that food, through culinary tourism and food festivals, can help foster movements that contribute to sustainable cultural revitalisation programmes (Di Giovine et al., 2017, p. 214). UNESCO’s food heritage nominations also show that turning food into heritage can create a special dynamic. Pfeilstetter (2015, p. 224) has argued about the Mediterranean diet that naming and promoting it as cultural heritage has rendered it a distinctive kind of food (different from ordinary food and other gastronomic practices) both qualitatively – because it is sustainable, ecological and healthy – and culturally – because it is Mediterranean, traditional and authentic. Finally, food has acquired importance in a global arena not only as an element of cultural heritage but also as part of the creative industries as demonstrated by UNESCO’s Creative Cities Network (UCNN). Within this wider programme, ‘gastronomy’ was

identified as one of the seven creative fields and, in this case, creativity is recognised as a strategic factor of sustainable development (UNESCO, 2018b, p. 10).

All of the aforementioned examples attest to the societal, economic and political issues surrounding food cultures and food heritage but also to the relevance of the latter towards the concept of sustainability.

Methodology and the case study of the BigPicnic project

This paper will discuss some elements from the research findings of the BigPicnic project (the project was titled 'Big Picnic: Big Questions – engaging the public with Responsible Research and Innovation on food security') that took place from May 2016 to April 2019 and was funded by the European Commission's Horizon 2020 Programme (BigPicnic, 2020). This was a collaboration between a consortium of 19 partners, among which 15 are botanical garden partners (see Table 22.2). The aim of the BigPicnic project was for the partners to co-create with their local communities and their chosen target audiences a series of exhibitions, science cafés and events that would generate dialogue and build a greater understanding of food security issues (Wippoo & Dijk, 2016; BigPicnic Project Consortium, 2019). The project strived not only to give a voice to the public on RRI⁵ in food security but also to communicate the findings to policymakers (BigPicnic Recommendations, 2019). During the aforementioned co-creation activities, an extensive set of qualitative studies was carried out by the partners and this was also combined with a large-scale survey with 1,189 respondents (Kapelari et al., 2020, pp. 4–5). In this paper, we will focus mostly on the findings from the qualitative studies.

As mentioned above, the 15 botanical garden partners (henceforth BG partners) organised a wide range of activities and received training and guidance from the University College London for

the collection of data – primarily qualitative – following various methods (observations, interviews, focus groups, photographs, concept maps, etc.) and for analysing this following the TBI evaluation framework. TBI is a form of action evaluation, originally developed by the NISE net (Nanoscale Informal Science Education Network), which is employed in complex social interventions in order to assist practitioners and other stakeholders to define and then formatively redefine project effectiveness, and to forge effective action/practice (Rothman, 1998; Pattison et al., 2014). In the case of the BigPicnic project, the application of the TBI evaluation framework aimed to help botanic garden practitioners to evaluate their projects and reflect on their practice (Moussouri et al., 2019). This paper addresses the findings from a sample of 76 TBI reports completed by the BG partners, all of which were aligned with the key food policy priorities identified by Food 2030 and the SDGs.⁶ The authors of this paper conducted a meta-analysis of these datasets.

The cultural and social dimensions of food: findings from the BigPicnic project

The BigPicnic project generated very interesting findings on various aspects that relate to food security and sustainability but the data gathered also frequently touched on cultural and social values attributed to food. The co-creation activities undertaken covered a diverse range of topics – ranging from food waste and labelling, urban gardening, crop sustainability to traditional medicinal plants, superfoods, edible insects, etc. What is particularly important to emphasise is that the whole process of allowing citizens of various groups to co-create activities (such as exhibitions) and to engage in dialogue with scientists (through science cafés) was underpinned by a directly bottom-up approach. This approach is in tune with the increasing awareness of how

top-down approaches pose a risk to sustainable heritage practices (de Merode et al., 2004, p. 9) mentioned earlier. In terms of the overall significance of food towards achieving sustainability, SDGs 4 (quality education) and 3 (good health & well-being) were by far deemed to be the most significant. It is noteworthy that more than half of the TBI reports and nearly all of the botanical gardens received responses that revealed links with the notions of ‘food cultures’, ‘foodways’ and ‘food heritage’ (as these were described earlier). These responses were categorised in the meta-analysis stage under the broad term ‘culture and food’. We will further elaborate here on three important themes that emerged from the data which relate to [1] ‘traditional foodways, knowledge and practices’, [2] ‘food memories, stories and the social context of eating’, and [3] ‘migration and food: well-being of the diaspora communities’. This will subsequently lead us to a discussion of these findings and particularly the role of food heritage in fostering debates about food security and sustainability.

Traditional foodways, knowledge and practices

We already mentioned above that UNESCO’s promotion of traditional food practices has been part of a wider heritagisation process that has not only boosted efforts to protect cultural diversity and the transmission of traditional food-related know-how but has also rendered food heritage a valuable asset for local communities, whole regions or nations. Nevertheless, since conventional heritage practices are increasingly viewed as unsustainable (Harrison et al., 2020, p. 486), alternative perspectives and approaches (to the ones held by heritage professionals) need to be more widely considered. The traditional ways of eating appeared very important among participants to the BigPicnic activities when they engaged in discussions about food security topics. Several respondents mentioned specific examples of foodstuffs that they were familiar

with or for which they had cultural attachment. They underlined how important these types of food, plants or dishes were to them either because they grew up eating them or because these were associated with special situations (events, celebrations, rituals) related to their family, region or country.

The partners from the city of Bergamo, in Northern Italy – which coincidentally was awarded City of Gastronomy status in October 2019 (UCNN, 2020) – reported in the context of bread making in particular, that the traditional way of eating was valued along with dialogue and a relationship of trust between consumers and bakers/sellers. The appreciation of the Italian Mediterranean diet – belonging to the broader Mediterranean diet that has been inscribed in UNESCO’s representative list of intangible heritage elements (Pfeilstetter, 2015) – was also evident and here the element of traditional eating was also associated with the notion of seasonality and the link between territory and culture. Another participant from Bergamo while participating in an activity about food plants stated that many of the names included in the available checklist were familiar through childhood experiences. Reports from Vienna, Austria, suggested that the knowledge of the older generations about food and nutrition was significant in influencing food choices but this knowledge was considered both an asset and a burden. In the Botanic Garden Meise (BGM) in Belgium and the Tooro Botanical Gardens in Uganda, members of the African diaspora and the local communities respectively provided details about specific dishes made out of the plants they were seeing and engaging with and the specific occasions or celebrations where this culinary practice would take place:

Kahunga can also be prepared and eaten as solid food, for example this is our staple sauce as Bakonzo tribe, we prepare sombe and bundwe (casava flour) as a special meal for the visitors

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(Comment by an Ugandan village farmer)

In a previous section of this paper, we mentioned how UNESCO conventions have strongly promoted traditional food practices and gastronomic creativity by celebrating and calling for the protection of the cultural diversity that exists in various countries and communities (UNESCO, 2005; UNESCO ICH Convention, 2006). Maintaining cultural diversity in the use of food was deemed important by participants to the BigPicnic activities and this diversity was seen as a parameter that affects how people use and consume food. Comments recorded in both Spain and Greece emphasised that people should relish both their own culinary traditions but also the diversity within individual countries. What is also interesting is that members of the public in Bulgaria expressed their keenness for the preservation of traditional recipes of edible plants and this seems to align with the notion that globalising processes and social transformations can often pose threats to the sustainability of certain traditions.

Finally, an interesting example of a form of traditional knowledge that was considered a useful solution for offering sustainable solutions to Uganda's food security issues emerged from data collected by the Tooro Botanical Gardens. More specifically, the revival of traditional ways of storing crops, like the traditional Enguli granaries, was considered a useful way for tackling contemporary food storage problems and a potential solution to avoid food spoilage in periods of famine. Such an approach echoes the principles advocated by UNESCO's ICH Convention. More specifically, UNESCO's recently published 'Thematic Indicators' have suggested that 'knowledge and practices transmitted from generation to generation' in areas such as agriculture, food systems, traditional medicine, natural resource management, ecosystem services and ecological resource management have the potential to contribute to food security and the SDG 2 (zero hunger; Hosagrahar, 2019, p. 14). With regard to the same SDG, the International National

Trusts Organization (INTO) has also advocated for the importance of cultural factors, such as traditional knowledge and practices and has supported, for example, the planting of traditional 'heritage stocks', the promotion of sustainable farming practices along with genetic preservation of heritage livestock species (Canovas & Maurice, n. d., p. 3). In the African context, Webber Ndoro (2004, p. 84) has argued for the importance of traditional and customary heritage systems (using various examples, including Uganda), claiming that a management ethos that arises from the local social environment is the finest system. Such solutions provided by non-expert communities relying on traditional knowledge have often the potential to achieve truly bottom-up approaches. We will return to this point in the discussion section that will follow.

Food memories, stories and the social context of eating

Food has the special quality of triggering memories from the past and for carrying associations and stories that people often automatically relate to eating and to their own culinary traditions. Not surprisingly, in the BigPicnic activities, food was deemed to have strong associations with specific memories and stories that people keep and remember. This echoes the so-called 'proust effect' whereby a person can be taken back to childhood when the taste and smell of food or other senses stimulate the memories (Campen, 2014, p. 2). It also confirms the mnemonic function of food that renders it an 'edible chronotope' (Kirshenblatt-Gimblett, 2004, p. xiii) or 'edible souvenir' (Di Giovine & Brulotte, 2014, p. 18). The role of food in the sensory experience of places – with this sensory heritage element constituting a smellscape – can also trigger memories and emotions as demonstrated by a study of the Spice Market Quarter of Istanbul (Davis & Thys-Şenocak, 2017).

The comments received from the TBI reports pointed to the vital role of childhood memories in defining attitudes towards as well as knowledge about food. From data collected by the BG Partner in Warsaw, Poland, respondents mentioned that food triggered nostalgic thinking about home (for example, grandma's baking) and specific tastes that were now lost. Furthermore, other people tended to believe that food was tastier in the past and some believed that people who had experienced hunger would hold greater respect towards food. In both Italy and Spain, the lack of specific food memories from childhood were considered to explain the lack of knowledge about specific types of plants by some people. Findings from Hannover, Germany, and Greece also acknowledged the senses (e.g. taste/flavour, smell) as an important trigger for food memories as people automatically remember eating things in a specific way at a certain point in time.

I'm back in my home!

(Statement of an immigrant from Kosovo, living in Germany, smelling lemon balm)

When thinking about my childhood I always remember eating tomatoes from my granny's gardens

(Comment recorded by the BG Partner in Sofia, Bulgaria)

As already indicated, food is imbued with social values and meanings, and eating not only constitutes a social activity but places also the eater in a social universe. In the international heritage discourse, UNESCO has identified social practices as one of the five domains of ICH (see Table 22.1), and most of the elements inscribed in its 'Representative List of the Intangible Cultural Heritage of Humanity' demonstrate the importance of communality. This 'social context of eating' (what the food heritage literature has underlined as the commensality of food) was another important aspect that emerged from the BigPicnic project data. Respondents appeared to

place value on the social interaction that takes place when people share food and eat together. Such comments stressed that communities appreciate how pleasant and useful it is for people to be connected through occasions that involve making food or eating together. Quite interestingly, at the BGM where the culinary practice of eating insects (as an alternative food) was addressed in some activities, it was observed that social norms often dictate whether or not something is acceptable as a food source. In this case, parents and grandparents had a significant impact on the decision of the children: whether they would try out or not a dish that contained insects. From data collected in Poland, it was noted that people felt an obligation to offer high-quality food when serving food to someone they knew personally. It is no surprise to be reminded that etymologically both the Greek and Latin words for ‘companion’ are related to the idea of sharing food: ‘*syntrofos*’ (σύντροφος) a person with whom you share food and ‘*com panis*’ meaning a person whom you share bread with (Travlou, 2020, p. 173).

Migration, food heritage and well-being in the diaspora

Food-centred and gustatory nostalgia is a very common element within diasporic or expatriate populations and this is evident both in processes of identity construction and in their experience of displacement (Holtzman, 2006, pp. 366–367). David Sutton’s research on diaspora communities has highlighted how some of its members can have a longing for a lost homeland through food, e.g. the past is stored in the smell of olive oil or the taste of a fresh-cut fig (Sutton, 2005, 2010).

A very interesting element that emerged from the BigPincic data was the relationship between migration and food heritage. This was directly related to the foodways of diaspora communities and how these were affected by the fact that living far away from the country of origin makes

access to certain ingredients difficult. This was an aspect that highlighted also the importance of certain plants, food products and dishes for contributing to the formation of cultural identities. These findings came about primarily from activities undertaken by the BGM in Belgium that worked closely with members of the African community living in the country. Indeed, the BGM, in collaboration also with the non-governmental organisation FoodBridge, engaged with the African diaspora of Belgium in various projects. These projects highlighted the potential of food as a tool for building bridges between people and across cultures. Maureen Duru, who was actively involved in the BGM's activities, has studied the daily food habits and culturally prescribed food norms of the Nigerian diaspora communities in Belgium and has stressed the importance for migrants of eating familiar (related to the homeland) food and of recreating home in the diaspora context through food (Duru, 2017, pp. 259–265). Her research has confirmed that food can be used by people in order to both distinguish themselves from others (a marker of identity) but also in order to engage with others within their environment (Duru, 2017, p. 15). The co-creation activity 'The Face behind the food' aimed to help people undergoing (forced) migration to cope with 'lost' foodways and to feel at ease in their new situation. In this case, the BGM also aimed to contribute to helping these people 'reconnect'. For the purposes of this project, participants visited the botanical garden in order to share their experiences about the African plants. In this process, not only they presented stories and their favourite food memories but also their traditional knowledge about the production, consumption and sociocultural significance of the plants in question offering an alternative narrative/story to the scientific knowledge usually presented at the botanical garden. This activity was also combined with a shared cross-cultural meal while a smaller group of participants came back for a second more in-depth visit to share their knowledge with guides and educators. These participants were also

offered a gardening course during which they expressed their desire to learn how they could grow tropical vegetables in Belgium.

From data received by the participants of the aforementioned activity, it was stated that people of the African diaspora miss the feeling of cultivating, harvesting and gathering their own food. Often, they feel they have insufficient access to healthy, clean and reasonably priced food of their desire. In this case, people expressed their will to somehow be able to control the relevant food market. In addition, food was considered a way to 'reconnect' with the home country while concerns were also raised about the agrofood sector and the well-being of the African farmers producing the plants that are then sold to other countries. Overall, these participants enjoyed sharing their food and plant knowledge, and the space of the BGM appeared to become a place where African diaspora people could do gardening but also showcase their crops, traditional knowledge and national or local cuisine.⁷

To come back to some points raised earlier, the memories, stories and traditional knowledge of the members of the African diaspora were very much valued by the BGM staff and managed to add additional layers to the existing scientific knowledge presented in the botanical garden.

Furthermore, it offered additional perspectives and dimensions to discussions about food security and sustainability during the science cafés that brought together the experts and members of the public. In recent years, UNESCO's operational directives for the implementation of the ICH Convention (see Table 22.3) have considered traditional knowledge and practices to be useful to both inclusive social sustainability and environmental sustainability. Certain forms of ICH such as 'farming, fishing, hunting, pastoral, food gathering, food preparation and food preservation knowledge and practices, including their related rituals and beliefs' are deemed to contribute to food security and nutrition, agro-biodiversity and resilience to climate change (UNESCO, 2018a,

Paragraph 178). On the other hand, the same directives have stressed the importance of 'knowledge and practices concerning nature and the universe' for achieving environmental sustainability (ibid). In any case, ensuring the transmission of these practices is a vital aspect which underlines the importance of the human element: the notion of people as knowledge and cultural bearers (as emphasised earlier in our chapter). What's more, this close relationship between sociocultural elements and wider human perceptions of nature, flora, fauna and food demonstrates one of the central arguments of this paper: that food heritage can serve as a catalyst for environmental sustainability.

We close this subsection with a reference to findings that pointed the close connection between food heritage and well-being of diaspora communities. It has been suggested that heritage can contribute to SDG 3, 'good health and well-being' (Hosagrahar, 2019, p. 14). According to the World Health Organization's Constitution, 'health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO, 2020). Indeed, existing research on heritage and well-being supports the importance that heritage places have on the social well-being of people (Power & Smyth, 2016) with some heritage organisations encouraging the preservation of meaningful places for people for the sake of the relevant health benefits (Reilly, Nolan & Monckton, 2018; Canovas & Maurice, n. d., p. 5).

The food-related activities organised in the context of the BigPicnic project and the subsequent qualitative studies rendered some interesting insights on the contribution of food heritage and the preservation of specific foodways for the well-being of citizens. The work of the Royal Botanic Garden Edinburgh (RBGE) in Scotland was particularly revealing in this topic. More specifically, food was seen as a medium for communication that enables members of the diaspora to create social contacts with Scottish people and improve their knowledge of the

English language and local accent. The RBGE organised a series of co-created exhibitions and activities employing what they termed as digital storytelling. This project aimed to give a voice to people who experience food insecurity and to work with communities to increase access to nutritious food.⁸ Within this context, the digital story created by an Iranian immigrant was very revealing about the intersection between food culture, traditional eating habits, health problems and well-being. This participant underlined how his eating habits were defined by the traditional food of his home country but the fact that he was recently diagnosed as a diabetic had a significant impact on his diet. He particularly emphasised how certain types of food characterise the ethnic cuisine of certain groups of people: *‘...And I told her I am Iranian – rice is like coffee for you. Everything is rice’* – comment by the Iranian participant in RBGE.

Through the digital storytelling project, this person managed to take back control of his food choices and he actually turned his whole life around. The activity in which he participated made him improve his confidence and to feel he benefited from engaging with Scottish people and that he could integrate to the community. Although the food culture that informed his eating habits initially seemed to be an obstacle for tackling his health problem, the active involvement in RBGE’s activities allowed for a meaningful reflection on health, nutrition and identity and for a consideration of various alternative food options.

Discussion

Reflecting on the findings of the BigPicnic research and their relevance to food heritage sustainability, there are two points that we would like to emphasise. First of all, the social and cultural dimensions of food should not be neglected for their contribution to heritage sustainability as their influence is not restricted merely to cultural or social sustainability but

clearly extend to environmental sustainability as well. The other point is that participatory/bottom-up approaches to heritage management and practice can further enhance the opportunities to engage with and promote food heritage in a truly sustainable manner.

The link between cultural and environmental sustainability, as discussed above, has already been acknowledged by key players in the heritage sector, such as UNESCO, and has also been supported by an abundance of literature (albeit not always converging) that comes from various disciplines. What the BigPicnic data indicate or, rather, reinforce is that the traditional foodways of communities and the food practices that are passed down from generation to generation are certainly important for identity making and the sense of belonging. Preserving these social and cultural values that render food as heritage is important for the people concerned (the people who value food as heritage). However, the importance of these dimensions that food embraces extends beyond that. The right to access culturally appropriate food and to sustain the social and cultural activities that surround food can ensure that also different value systems, cosmologies and forms of knowledge are protected. The latter can improve our availability to adopt sustainable approaches in heritage, food and environmental policies.

The importance of traditional knowledge came across strongly in the interactions of the botanical gardens and the communities they engaged within the BigPicnic activities, as seen by the examples already mentioned. Undoubtedly, several examples internationally point towards the contribution of traditional agriculture and indigenous/traditional/local knowledge to sustainable and climate-smart food production (Dweba & Mearns, 2011; Magni, 2016; Singh & Singh, 2017, pp. 301–302). However, that is not to say that all traditional ways of food production and consumption as well as land management are inherently ecologically sustainable or constitute a panacea for sustainability (Clarke, 1990, pp. 235–236; Nygren, 1999, p. 268). When discussing

food heritage and sustainability, it is best neither to support the idealised notion of the ‘ecologically noble savage’ – the idea that all indigenous populations have lived in harmony with the environment (Hames, 2007, pp. 178–179) – nor to exacerbate any divisions between ‘traditional’ as opposed to ‘scientific’ knowledge or local as opposed to universal knowledge (Nygren, 1999, pp. 267–268; Moore et al., 2003, p. 23). Traditional food knowledge can coexist and play a significant role alongside other forms of knowledge.

In a similar manner, different food memories, stories and the social context of eating are also integral in any effort to preserve food heritage. It has been argued that food is much more than sustenance and nutrition and therefore the mnemonic and sensory processes that are involved in the heritage-making process that surrounds food are vital. Understandings of how citizens can adopt healthier eating habits, avoid food waste and proactively contribute to efforts to tackle the climate crisis are intertwined with how people perceive themselves and their sense of community and belonging through food. In today’s globalized conditions, many cities and countries encompass culturally diverse societies. In this context, the findings that relate to food heritage in the context of diaspora communities are important because they indicate that food value sharing can truly become the opportunity for dialogue and knowledge exchange that can further sustainability goals. In the case of BGM in Belgium, members of the diaspora were allowed to engage in activities that demonstrated their know-how, traditional knowledge and food practices, and by using food security as a point of discussion, they managed to enhance cross-cultural dialogue but also bring the views of both the food experts and the non-experts to the table. In the case of the RBGE activities in Scotland, certain citizens managed to even turn their lives around not only improving their well-being but also seeking to promote food security for the greater good.

Moving to the second point that we would like to raise, the BigPicnic project fostered a series of activities that brought together various citizens (the ‘non-experts’) with botanical gardens, scientists, educators, professionals of the food industry, etc. The principles of co-creation were at the centre of this approach. It was through this approach that members of various communities (local communities, families, school children, members of the diaspora and farmers) were able to reflect on and engage in dialogue about food security, sustainability and eventually their own perceptions of food heritage. This proved that engaging citizens in scientific debates about the aforementioned matters is important as it broadens the understanding of what food heritage sustainability should actually entail. The overall impact of the BigPicnic project can be considered through various outputs: the numbers of people engaged through the project’s outreach activities, the potential for organisational change from the part of the participating partners and the end result of these activities which, among other deliverables, produced some policy recommendations (BigPicnic Recommendations, 2019) but also though some long-term impacts. The latter, for example, included the transformation of the lives of some project participants from citizens with concerns about food security to food activists.⁹ All of these aspects support the idea that engaging citizens in discussions about food heritage in bottom-up approaches can contribute to wider understandings of food heritage sustainability.

In this paper, we summarised a range of sources that support the contribution of food heritage to sustainability with a significant emphasis on how this was achieved through looking at food as part of ICH. Although the potential for intangible heritage to truly achieve sustainable development has often been questioned (Boswell, 2011), there have been projects, such as the development of local/indigenous oral traditions, performing arts and traditional craftsmanship in India (Bhattacharya, 2015), that have provided livelihood opportunities to local communities. It

has been suggested that in order to properly address sustainable development the heritage discourse needs to focus more on the concepts of empowerment and participation (Albert, 2015, pp. 17–18). These two concepts emphasise the responsibility that people must assume individually and collectively for the future of the planet and for the management and use of common resources that are scarce, including natural and cultural resources (ibid). Indeed, the work of political economists, such as Elinor Ostrom (1990), who have promoted the notion of the commons – where the public or the community are made up of responsible citizens – has inspired discussions of the potential of a ‘heritage of the commons’ (Lekakis, 2020). The acknowledgment of the importance of the notion of food sovereignty in discourses that deal with food and sustainability (Nyéléni, 2007; Gordillo & Jeronimo, 2013) also points towards this direction and so do the discussions of the notion of ‘food democracy’ (Renting, Schermer & Rossi, 2012).

We have already mentioned how supporting bottom-up approaches in heritage practices, management and planning is key to sustaining both cultural and natural heritage in the future (de Merode et al., 2004, p. 9). The approaches adopted through the BigPicnic process of co-creation seem to align with opportunities for communities to have a stronger voice in food security – here lies a common point between participatory heritage and the movement for food sovereignty. With the Declaration of Nyéléni (2007, p. 9) recognising culturally appropriate food, produced through ecologically sound and sustainable methods, as a right we are perhaps entering a stage at which food heritage should be considered more strongly beyond the boundaries of heritage studies or any other single discipline for that matter. The notion of food sovereignty supports the view of food as a commons (Vivero-Pol et al., 2019) – a resource shared by communities but also the shared social practices for governing this resource (Ferrando & Vivero-Pol, 2017, p. 51)

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– and recent conceptualisations of heritage as commons have also considered cooking and culinary practices as both ICH and an act of commoning (Travlou, 2020).

It is probably appropriate to close this discussion by mentioning an aspect of food heritage that would require further research. This is the role of food heritage in promoting gender equality (relating to SDG 5). We have already underlined the significance of traditional food knowledge and practices for both cultural and environmental sustainability. In this context, research conducted by the Cross-Cultural Foundation of Uganda (CCFU, 2017, p. 3) has suggested that prior to the current marginalisation of women and girls that came about from the early 1960s, culturally defined female rights were protected through traditional Acholi cultural norms and principles. According to these cultural norms and practices, women were recognised and respected for their important role in various aspects that among others included their traditional roles in the agricultural sector and their traditional responsibility for food security (ibid, p. 23). This is only one example from one specific country and region but this offers food for thought for further implications that the notion of food heritage may have for sustainability.

Conclusions

This paper has argued that the notion of food heritage can be an important catalyst – if not a mainspring, as UNESCO has advocated – for discussing global and local challenges to sustainability and promoting food security. The findings from the BigPicnic research project and the examples employed in the analysis highlight that viewing food as heritage requires considering food’s tangible and intangible dimensions and values along with its multisensory elements. All of these parameters exist along with but extend beyond science and technology and the politics and governance surrounding food. Food and food heritage is directly attached to

human behaviour that reflects sociocultural values and identities and therefore understanding and sometimes changing the behaviours of citizens are the key to achieving sustainability. In the context of food security that engages with many global challenges and the notion of sustainability, science and technology offer many solutions and are vital. However, paying closer attention to how cultural values and identities interact with food and food choices can shed light to overlooked aspects and can offer a greater variety of solutions to the global food challenges. By looking at cultural heritage and environmental sustainability together and in an environment that allows various voices and concerned stakeholders to express their opinions, issues of sustainability can be better communicated.

A reflection on the findings of the BigPicnic project demonstrated the significant role that traditional food knowledge and practices hold for various communities when they think about and ponder about the sustainability of their foodways and systems. Furthermore, the food memories and stories attached to cooking and eating and the social context of eating are not only important for the relevant communities but also for preserving additional layers of value that are not necessarily always shared with the experts (be it food or heritage experts). This implies that when discussing food heritage and sustainability it is not enough to target individuals/consumers but the focus should be rather placed on sociocultural groups and wider networks (e.g. families and communities) and their role in shaping individual values, identities and, consequently, behaviour.

Addressing and incorporating the diverse and enormous literature on food cultures, foodways and food heritage into the policies that tackle food security perhaps may be deemed to complicate things by significantly expanding the parameters that need to be considered. Nevertheless, this task is worthy as shown by the emergence of a strong discourse on food

heritage and its contribution to sustainability and as demonstrated by the findings of the BigPicnic project discussed in this paper. We would further argue that research on food heritage would benefit from closer engagement with other transdisciplinary approaches and fields of study, such as social ecology¹⁰ and agroecology,¹¹ with mutual cross-fertilisation of ideas and findings providing additional useful insights.

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Appendices

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Table 22.1 Definitions.

<p>Intangible Cultural Heritage (ICH): ‘the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize</p>
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<p>as part of their cultural heritage’ (UNESCO ICH Convention, 2006, Article 2.1). This ICH is manifested in the following five domains: (a) oral traditions and expressions, including language as a vehicle of ICH; (b) performing arts; (c) social practices, rituals and festive events; (d) knowledge and practices concerning nature and the universe; (e) traditional craftsmanship (ibid, Article 2.2).</p>
<p>Foodways: ‘patterns of diet, nutrition, cooking, eating, feasting and fasting’ (Fischer, 1989, p. 9), ‘the beliefs and behavior surrounding the production, distribution, and consumption of food’ (Counihan, 1999, p. 2). According to Engelhardt (2013, pp. 1–2) foodways deals with ‘the study of what we eat, how we eat, and what it means’ and describes the cultural processes, social interactions and cultural exchanges that ‘define food, drink and nutrition’.</p>
<p>Food security: Food security ‘exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life’ (FAO, 2009).</p>
<p>Food sovereignty: ‘the right of people to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems’ (Nyéléni, 2007, p. 9).</p>

Table 22.2 The 15 botanical garden partners of the BigPicnic project

Name	Country
Botanical Garden of the University Vienna	Austria
University Botanic Gardens of Sofia University ‘Saint Kliment Ohridski’	Bulgaria
Hortus botanicus Leiden	The Netherlands

University of Warsaw Botanic Garden	Poland
Juan Carlos I Royal Botanic Gardens, University of Alcalá de Henares	Spain
Botanical Garden and Botanical Museum at Freie Universität Berlin	Germany
Natural History Museum of the University of Oslo	Norway
National Museum of Natural History and Science at the University of Lisbon	Portugal
Royal Botanic Garden of Madrid	Spain
Royal Botanic Garden Edinburgh	United Kingdom
Balkan Botanic Garden of Kroussia	Greece
Botanic Garden Meise	Belgium
School Biology Centre Hannover	Germany
Bergamo Botanic Garden	Italy
Tooro Botanical Gardens	Uganda

Table 22.3 Safeguarding intangible cultural heritage and sustainable development at the national level (UNESCO, 2018a, Chapter VI, Paragraphs 170–197)

VI.1 Inclusive social development	VI.1.1 Food security
	VI.1.2 Health care
	VI.1.3 Quality education
	VI.1.4 Gender equality
	VI.1.5 Access to clean and safe water and sustainable water use
	VI.2.1 Income generation and sustainable livelihoods
	VI.2.2 Productive employment and decent work

VI.2 Inclusive economic development	VI.2.3 Impact of tourism on the safeguarding of intangible cultural heritage and vice versa
VI.3 Environmental sustainability	VI.3.1 Knowledge and practices concerning nature and the universe
	VI.3.2 Environmental impacts in the safeguarding of intangible cultural heritage
	VI.3.3 Community-based resilience to natural disasters and climate change
VI.4 Intangible cultural heritage and peace	VI.4.1 Social cohesion and equity
	VI.4.2 Preventing and resolving disputes
	VI.4.3 Restoring peace and security
	VI.4.4 Achieving lasting peace

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¹ The four pillars of food security are ‘availability’, ‘access’, ‘utilization’ and ‘stability’ (WSFS, 2009). The BigPicnic consortium has viewed food security as an umbrella term for three interconnected concepts: ‘access’, ‘safety’, ‘sovereignty’ (BigPicnic, 2020).

² The link with the cultural and creative industries was promoted with the guiding principles of the ‘Convention on the Protection and Promotion of the Diversity of Cultural Expressions’ which states that cultural diversity is a ‘mainspring for sustainable development for communities, peoples and nations’ (UNESCO, 2005, Article 2).

³ Literature from the so-called ‘Anthropology of Food’ (Mintz & Du Bois, 2002; Watson & Klein, 2016, pp. 2–3), ‘Geography of Food’ (Bell & Valentine, 1997; Freidberg, 2003) and ‘Sociology of Food’ (Goody, 1982; Mennell et al., 1993; Carolan, 2012) has investigated the cultural and symbolic dimensions of food as well as contemporary social issues in food production and consumption systems. Since the beginning of the 2000s, the notion of ‘food culture’ gained importance in the social and human sciences and, even though scholars from different disciplines have often emphasised different aspects, it has been acknowledged that global themes emerging in public debates about food require approaches that go beyond clear-cut disciplinary frameworks (Fumey et al., 2016). Interdisciplinary research on food has led to the emergence of ‘food’ or ‘culinary studies’ (Julier et al., 2019, pp. 1–2), a thriving scholarly field even if sometimes hard to define precisely (Albala, 2013, p. xv), and the last two decades have seen the development of various relevant academic degrees (Watson & Caldwell, 2005, p. 1; ASFS, 2020). Folklorists and historians have also employed the term ‘foodways’ (see Table 22.1) in order to address the exploration of socially bounded lifestyle groups whose social network includes the sharing of a food system (Brown & Mussell, 2001, p. 11). Food has also played an important role in spatial conceptualisations of the environment through the notions of ‘foodscape’ that addresses the nexus of ‘food-people-places’ (Vonthron et al., 2020, p. 8) and

'smellscape' that investigates the nexus between 'people-odours-environment' (Henshaw, 2013, p. 2).

⁴ Some of these include the Mediterranean diet, the gastronomic meal of the French, the beer culture in Belgium, traditional Mexican cuisine, the know-how of cultivating mastic on the island of Chios (Greece), and the tradition of kimchi-making (Democratic People's Republic of Korea).

⁵ According to the European Commission, RRI 'implies that societal actors (researchers, citizens, policymakers, business, third-sector organisations, etc.) work together during the whole research and innovation process in order to better align both the process and its outcomes with the values, needs and expectations of society' (EC, 2020).

⁶ Food 2030 was launched after the 2015 Milan World Expo and is the European Union's research and innovation policy response to international policy development for food sustainability (Fabbri, 2017, pp. 2–3). The four key Food and Nutrition Security priorities are the following (Food, 2030): 'nutrition for sustainable and healthy diets', 'climate smart and environmentally sustainable food systems', 'circularity and resource efficiency of food systems', and 'Innovation and empowerment of communities'.

⁷ The following video was produced by the Meise Botanic Garden in July 2018 and provides interesting insights about the experience of working with the African diaspora. It also includes interviews from a visit to the Tooro Botanical Gardens in Uganda (another partner of the BigPicnic project) and reflects on the shared experiences and ideas about food security and the involvement in the BigPicnic project: <https://www.bgci.org/resources/bgci-tools-and-resources/bigpicnic-resources/>

⁸ Some of the very interesting stories created by the RBGE can be found on the following website: <https://www.rbge.org.uk/news/big-picnic/big-picnic-stories/>

⁹ Some of the stories created by the RBGE's digital storytelling activities were presented in 2019 to Members of the Scottish Parliament and this coincided with a period of consultation over Scotland's ambition to become a good food nation (RBGE, 2019).

¹⁰ Social ecology, following a transdisciplinary approach, has made important contributions to sustainability research by focusing on the interrelations between societies and their natural environment in an overall effort to view the human world and society systematically (Wheeler, 2012, p. 2; Kramm et al., 2017, pp. 2–4; Stokols, 2018, p. 15). For example, the notion of the 'Mediterranean diet' – recognised as intangible cultural heritage by UNESCO since 2013 – and its contribution to the sustainability of local communities has been recently viewed from the perspective of social ecology (Petridis & Huber, 2017).

¹¹ Agroecology encompasses transdisciplinary approaches that 'consciously seek to combine the experiential knowledge of farmers and indigenous people with the latest insights from the science of ecology' (Pimbert, 2015, pp. 287–288).