Waste



Matters





Waste Matters

I libri di Ca' Foscari

15



Waste Matters

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Rector's delegate for sustainability

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Waste Matters

Chronicles from a Food Archipelago in Venice

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Preface Looking at Waste through Art Anna Bonfante, Martina Gonano Sustainable Ca' Foscari Office

This publication collects the contributions of those who took part in the artistic project on sustainability that Ca' Foscari University of Venice has sponsored and held for the last ten years. This project revolves around the topics of sustainable development analysed through the artistic language and creative perspective.

This year's project, called *Waste Matters* – although its implementation lasted almost two years due to the pandemic –, focuses on food waste and waste in general as something that matters.

Ca' Foscari University students and professors have worked side-by-side with the artist Gayle Chong Kwan, awarded the Sustainable Art Prize in 2019. Four years ago, Ca' Foscari established this recognition in partnership with ArtVerona – Art Project Fair to promote sustainable development and the 17 SDGs of the UN 2030 Agenda for Sustainable Development, and to encourage artists to include these topics in their creative work.

Gayle Chong Kwan focused her artistic work on food waste and the fragile balance between food production and its environmental impact on landscapes and scenarios. She conveyed and translated these topics into visionary and solid artworks. According to the artist, waste cannot be decontextualised or considered an aim in itself; instead, it is a vibrant matter, a lively and vital issue rooted in the modus vivendi of our society.

The *Waste Matters* project was strongly influenced by the current context, as shown by the techniques and output achieved. The pandemic outbreak in March 2020 caused the project to start in Autumn and be held online, with the Italian and foreign students connected from home.

This unexpected set-up gave Gayle Chong Kwan – based in London – the possibility to attend all the five scheduled meetings and walk the participants throughout the whole process by sharing creative ideas, concerns, and feelings related to this particular moment of isolation.

Each participant had to share their private space, such as their rooms, or houses via webcam. This condition created a deep sense of connection.

In addition, to analyse and study food waste, this set-up also allowed them to experience it directly at home and personally examine the real consequences of the topics discussed.

The artist wanted the participants to implement practical actions in their private environment, thus, providing them with the tools to carry out personal artistic and creative research by investigating their kitchen, their shopping, and their district through art. The students discovered that there are continuous study, investigation, and paths behind an artwork, leading to new ideas and artistic impressions. This new awareness debunked the misleading concept that every artwork comes from a flash of inspiration or a night dream; they experienced how the final

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artwork is the embodiment of knowledge, research, and intuitions gathered by the artist and their way to see life.

This approach was also fundamental to put the theory into practice: photographic record activities, mapping, food waste collection and cataloguing, recycling, and creative composition. All these elements helped the participants find effective communication methods and raise awareness on this topic outside of the project.

Part of the meetings focused on the SDGs of the UN 2030 Agenda related to waste. In this regard, students were involved in a process made of confrontations, study, research, and new ideas and reflections. They had to investigate the issue by reading reports, looking for reliable sources of information, and carrying out data analysis, exactly as in the artistic process.

By aligning the world of Arts and the world of Academic Research, students could identify the synergy permeating their study and training course.

We based our artistic investigation on some questions, and we discussed them with Gayle Chong Kwan:

- > Where does the food on our table come from?
- > How far has the food travelled?
- > Where does our waste end?
- > What is the impact of our daily actions on the environment we live in? And again, what impact have our daily actions on the communities often far from us producing the food we buy, eat, and, sometimes, throw away?

The COVID-19 pandemic completely changed our lives and critically impacted the Planet; in addition to affecting the healthcare sector, this touched several aspects of our development system and shed light on the weaknesses and limitations imposed by the current production and development systems. The need to turn to a sustainable development approach by implementing the UN 2030 Agenda for Sustainable Development is becoming increasingly evident.

The dictionary defines the term 'food' as: "noun [lat. cibus] – any nourishing substance that is eaten". However, is this definition correct nowadays? How much food is thrown away every day across the world? 17% of the food available – intended to nourish the human population – is being thrown away.

On 5 February 2021, we celebrated the National Day against Food Waste, under the title "Stop food waste. One health, one planet". Reducing food waste is a tool to protect human health and the environment.

Food, indeed, is among the causes of climate change and has a deep environmental, human, and economic impact; the UN 2030 Agenda for Sustainable Development explains why and how food intertwines with several aspects of our daily life and outlines our future challenges.

Sustainable Development Goal no. 2 revolves around food, food production, and food availability. It aims to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture", and no. 12 "Responsible Consumption and production" aims to "ensure sustainable consumption and production patterns".

Goal no. 12 only contains one target related to food. Still, it has a significant impact on our behaviours and choices: "by 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses".

But the UN 2030 Agenda features many other objectives related to food. SDG no. 5 on "gender equality", for instance, connects agriculture and gender issues, as women also make up half of the agricultural labour force in developing countries. Yet, relatively fewer women than men have ownership and/or secure tenure rights over agricultural land.¹

Similarly, SDG no. 6, "Clean Water and Sanitation", is closely related to food and agriculture. In fact, by 2025, two-thirds of the global population might be living in countries affected by water stress; reducing waste and promoting rational use of water resources can sustain the economic development and the world ecosystem in the future.

These are just a few examples. Food, however, impacts all the SDGs contained in the UN 2030 Agenda, and its management can critically influence their achievement.

These aspects lead to a vital question: how can I make a difference? Following our discussions, we started considering several aspects: the carbon footprint of our meals, their geographical origin, whether they are seasonal products, and how their production and supply chain affect soil consumption and mobility.

Food waste arises from several causes: bad management, unsuitable transportation and storage methods, lack of skills over the cold chain, extreme weather conditions, quality standards related to the food appearance, lack of planning and cooking habits among consumers.²

To quote Inger Andersen - UNEP (United Nations Environment Programme) executive director – "If food waste were a country, it would be the third-biggest source of greenhouse gas emissions".

According to the Food Waste Index 2021, created by UNEP, 931 million tonnes of food sold to households, retailers, restaurants, and other food services are wasted each year. About 570 million tonnes of wasted food come from households. At a national level, an Italian citizen produces 67 kg of food waste per year.³

How can we raise awareness among consumers? Which are the right tools to use? Each year, around the globe, there are initiatives and events dedicated to food waste, collection of food about to expire, or unsold food coming from restaurants and supermarkets, awareness-raising campaigns, contests, etc.

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Can art play a role in this sense?

The Waste Matters project proves that it can. The workshops, on-field activities, and artworks of Gayle Chong Kwan reached a wide audience (students, local community, and the international community that participated in the final installation). Gayle Chong Kwan's artistic process and artwork were investigated and analysed to shed light on current and future challenges and encourage the spectators to adopt more careful and respectful food behaviours, aware that the food that they purchase impacts the Planet, as well as the society.

The following pages present the *Waste Matters* project through the participants' voices who introduce their ideas, conclusions, and challenges, as analysed over the project, including new meanings and perspectives.

Notes

- 1 See FAO: http://www.fao.org/sdg-progress-report/en/#sdg-5.
- **2** See FAO: http://www.fao.org/news/story/it/item/1310445/icode/.
- 3 See Food Waste Index, UNEP United Nations Environment Programme, 2021.



Sustainability Way Beyond Academia

Public Art as a Driver for Behavioural Change and the Participatory Quest of Gayle Chong Kwan

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Abstract The paper offers a survey on the recent academic interest surrounding the field of art and sustainability, arguing that scholars have lingered on descriptive studies, focusing on the assumed 'emotional' potential of art, or on an instrumental attitude towards art taken as just one more communication channel to deliver scientific data. One more strain of scholarly investigation emerged among art historians exploring recent environmentalist or ecological art, though without taking into full account its aesthetic dimension and thus how it contributes to different ways of knowledge production. The present research offers instead a take on public art practices showing their particular capability of immersing participants in a different vision and changing behavioural patterns. Analysing the programme of art and sustainability delivered at Ca' Foscari University of Venice over a period of eight years, especially by means of the Sustainable Art Prize at the ArtVerona fair, the paper provides fieldwork on how public art bridges sustainability scholarship towards new horizons, stressing the importance of audience participation to tackle global challenges. The participatory project developed by Gayle Chong Kwan together with the students and the wider university community serves as a paramount example of paradigm shift by means of an artistic contribution in a specific social and economic context.

Keywords Public Art. Sustainability. Public engagement. Participatory practices. Behavioural change. Eco-aesthetics.

1 Good and Bad News from Planet Sustainability

In the wake of the global pandemic, it seems as if the severe climate crisis unleashed by the Anthropocene suddenly appeared both closer and further away. Closer it surely is, given the likely origin of the virus linked to an unstoppable erosion of wildlife territories driven by our overcrowded and overproducing humankind, though at the same time the environmental emergency silently slipped away from newspaper headlines to give way to the immediacy of death and lockdown (Carrington 2020). I am not arguing the pandemic did not deserve the spotlight it earned over the last year, but unfortunately reactions split over the kind of behavioural response needed, even despite the proximity to lethal events. Just a few months into the pandemic, wearing a mask turned into a political stance, while it really should be a matter of sanitary consideration and individual responsibility towards one another (Rojas 2020). If behavioural change was needed to tackle the challenges articulated by the United Nations in its very ambitious and necessary 17 sustainable development goals (SDGs), then this is both good and bad news. On one side, women and men proved to be capable of instant adaptation, when urgently needed, but on the other side frictions among diverging world views only grew stronger in the short run and thus risk to undo all advancements achieved so far on the quest for sustainability. At this point, it should be evident that the mitigation-and-adaptation strategy world leaders are currently aiming at is not sufficient to address the looming climate cataclysm, if means to foster behavioural change are not found and implemented swiftly (Giannachi 2012, 124-31).

It appears it all comes down to the quest of shifting profoundly rooted social and economic paradigms, as well as the underlying philosophical stances that allowed the kind of exploitation of natural resources, which led us to where we stand. However, it is by now clear that it is not a question of convincing people of harsh realities, although substantiated by scientific data and trustworthy projections, but to find ways of promoting an autonomous switch in individual attitude towards sustainable development (Wallen 2012, 234-42). As a matter of fact, sustainability challenges confronting the world are immense and problems such as climate change, biodiversity loss, energy policy, poverty, gender equality and working conditions require complex social, economic and technical solutions. The overwhelming size of problems is paralleled by another difficulty, represented by the indeterminateness of the term 'sustainability' and its multifaceted nature, which unfortunately falls prey to contrasting views and consequently urges scholars as well as policy makers to resort to multi-disciplinary approaches (Lang et al. 2012, 25-43). So far, the crisis has been addressed primarily with solutions based on technological innovation, rather than those that require significant changes in human behaviour. Furthermore, the last two decades

proved that information alone is not enough to inspire an effective response towards SDGs. The failure of inspiring behavioural change through rigorous scientific communication increasingly fostered international interest in the relationship between art and sustainability that supplements academic research and policy development (Connelly et al. 2016). Given its connection to ecoaesthetics, intended as a non-extractivist approach towards the interaction between humankind and the environment, art is at once credited as a practical means and a conceptual catalyst to drive human behaviour towards the accomplishment of SDGs. In this respect, sustainable art and its underlying aesthetics could be seen as new forms of knowledge production and integration within and beyond various academic disciplinary fields, complementing much needed legislative developments and shared international policies (Van Poeck, Læssøe, Block 2017).

2 Concepts of Sustainability and the Role of Public Art

Once the relevance of a fourth pillar for sustainability was recognised, the so-called cultural pillar, scholars have tried to approach and explore the role of art in the context of SDGs (Pröpper 2017). Especially over the last decade, the academic debate on art and sustainability has unleashed a kind of research activism that apparently produced two principle strains of research: on the one hand, descriptive studies focusing on the assumed 'emotional' potential of art; on the other hand, an instrumental attitude towards art taken as just one more communication channel to deliver scientific data. As regards the former approach, several scholars examined the role of art in shaping environmental behaviour, though merely stating that art can influence knowledge building and affect our capability of feeling empathy, but lacking a clear idea on the aesthetic mechanisms helpful to transition society towards a sustainable future (Rathwell, Armitage 2016). Concerning the latter perspective, far too often scholars from various disciplines position art at the end of the research process, in order to instrumentally convey science by exploiting artistic means such as photography, scenario building, and experience rooms, though without the actual intervention of an artist (Bendor et al. 2017). Similar observations are clearly grounded on the belief that art can be naively adopted for the sake of sustainability and that it is immediately effective as a sort of 'emotional' language that directly translates into a process of behavioural change (Thomsen 2015). In both cases, scholars and policy makers fail to understand the real potential of art, since they lack theoretical and institutional knowledge about art and art criticism that evolved with internal practices in connection to its audience, particularly with regard to public art projects in the 1970s and 1980s that

explored environmentalist and feminist strains (Bois et al. 2016, 654-60).

The predominance of anthropological and sociological studies as regards the cultural pillar of SDGs even led to a twofold academic drift as regards the employment of art. On the one side, there are scholars who engage in cultural resilience using artistic practices among indigenous populations, but without any connection to the concepts and institutions of Western art, thus rendering it very difficult to transfer this process of knowledge building into a global society (Athayde et al. 2017). On the other side, an increasing number of scholars directly employs artistic means to try expressing concerns about sustainability and to evoke reactions in the public, though hardly possessing the ability and experience to use those artistic media, thus ending up with something that bluntly looks like art (Curtis, Reid, Ballard 2012). However, there is one more strain of scholarly investigation that emerged among art historians, who embarked on an exploration of recent environmentalist or ecological art, as such interventions are swiftly increasing around the world (Boettger 2008, 154-61; Braddock, Ater 2014, 2-8). It must be noted, though, that this research approach is preponderantly descriptive, as it analyses the appearance of artworks, projects and even entire exhibitions connected to the topics of global warming or the Anthropocene (Dunaway 2009, 9-31). Hence, these scholarly contributions seem rather focused on trying to carve out a niche for such artistic practices inside or beyond the established art world, though hardly assessing their potential and impact on behavioural change in the context of sustainability practices.

This overview exposes the fact that recent scholarly work generally misses to grasp both the theoretical and the procedural implications of connecting art to sustainability. Two aspects in particular are hardly being explored, the first one related to the way sustainability is sensed and understood in different cultural and social contexts; the other one to the way artists may contribute to the debate on sustainability at an experiential and conceptual level in a given context. In order to do so, the primary goal should be to research the very concept of sustainability from a theoretical or even philosophical point of view, such as to determine the perception-reception or sensing-understanding process that steers the comprehension of sustainability in individuals and communities. The contribution of several scholars in the field of environmental aesthetics appears of particular relevance, since the latter focuses on our idea of the environment, which in turn affects our standpoint on ethical, social and political theories. In his guest to conceptualise the environment anew Arnold Berleant highlights that nature is neither alien nor external from the human world, thus aesthetics as a science of sensible matters can grasp the necessary theoretical and practical uniqueness of humans and nature (Berleant 1992, 14-24). Ellen Dissanayake further presents a detailed view of the origin of

aesthetic understanding inquiring the relationship between our survival instinct and the human impulse to organise and elaborate aesthetically, which thus becomes instrumental in shaping our attitude towards the external world, comprising the environment and the other from us (Dissanayake 2000, 129-66). Eventually, Timothy Morton suggests that the very idea of nature and otherness holds sustainability at arm's length, thus they must be reshaped, in order to get to properly sustainable forms of culture, philosophy, politics and art (Morton 2002, 52-6). In this regard, art emerges as a favourable multi-disciplinary driver of behavioural change, though it preferably has to be what practitioners of the 1960s and 1970s called 'public art', which implies a kind of creative process that is open-ended and directly involves the audience in the construction of meaning (Crickmay 2003). Public art indeed appears capable of immersing participants in a different vision and thus serves as a cultural innovator for behavioural patterns. If public art bridges sustainability scholarship towards new horizons, stressing the importance of audience participation to tackle global challenges, then it becomes clear that specific fieldwork is needed to recognise the most effective artistic practices that also retain high artistic standards. Fieldwork is truly needed, though one that involves artists and the public to explore ways and strategies of participated creativeness, which can influence or reshape our collective sense of sustainability.

3 The (Field)Work to be Done in Sustainable Art

One may wonder if time is finally ripe for art to be employed as a major driver for behavioural change towards a fuller awareness of sustainability issues. Little has been done, though, to analyse and assess the role, impact and potential of art in shaping sustainable behaviour. In general, the difficulties encountered by current research on art and sustainability are bound either to the inability to go beyond the bland description of artists working in the field of sustainability, or to the naivety with which art is envisioned by many scholars as merely another means to communicate scientific outcomes (Miles 2015). To the contrary, in its own right art should be employed to its maximum aesthetic and immersive potential for a shift in individual and collective environmental paradigms. Investigating how exactly art influences our aesthetic perception and, as such, the way we sense, understand and respond to sustainability is still an open task, but it is undeniable that its effect can be paramount in determining individual and collective paradigm shifts that may even foster the improvement of cultural, social, economic, and environmental aspects. It entails also to envision sustainability not as a universalist end-state determined by supposedly valuefree dictates of scientific research, but rather as the dynamic and fluid outcome of negotiation among stakeholders and various interested parties (Lang, Wiek, Bergmann 2012, 25-30). Public art fits this processual definition of sustainability very well, since artists working in the public sphere and directly engaging with their prospective audience indeed resort to the practice of negotiation – both of means and meanings – to deliver an openended outcome (Harding 1995). Such a starting point allows to explore innovative approaches for learning and producing knowledge through art that are relevant and credible for local communities and decision makers, as well as legitimate for the wider art world. At the same time, however, it is relevant to employ art in its own right, thus avoiding to produce mere artlike interventions, but foster the participatory creation of genuine art projects recognised as such even by art institutions (Mantoan 2019, 42-3).

Following this line of reasoning, thanks to a special programme at Sustainable Ca' Foscari, over the last decade we embarked on a set of art projects intended as field work on sustainable behaviour, involving both our students and the broader university community (De Marco, Gonano, Pranovi 2017, 169-72). We did not set forth to make art ourselves, but rather decided to have artists akin to sustainability issues sharing their thoughts, sensibility, and practice with our students and researchers, such as to produce an innovative and at times unexpected blend of scientific knowledge and creative solutions. Indeed, a key aspect of our efforts was experimenting how the involvement of artists, taken as actors outside academia, could contribute to a shared understanding of social, economic and ecological systems. Each time these projects involved a large group of students - between twenty and fifty each time – from across various study fields, who actively collaborated with the chosen artists to create installations. performances, exhibitions or other forms of interventions related to peculiar aspects of sustainable development (Mantoan 2016a, 3-5). The artistic contributions were thus exploited both as scientific fieldwork as well as opportunities to test the artists' work in relation to the ability to tackle sustainability topics or arouse active interest towards SDGs (Mantoan 2016b, 3-8).

Finally, in 2017 we went a step further and decided to kick-start the Sustainable Art Prize, a national recognition for artists working on SDGs, which was to be awarded each autumn at the influential art fair ArtVerona. Since then, we were able to organise three editions of the prize that gained much public attention, both at the fair and in national media. On one side, this experiment allowed us to put sustainable forms of art under the spotlight at a commercial event such as an art fair, thus stirring private galleries and collectors to support artists working on sensitive topics pertaining to the field of sustainability, further involving public opinion in the debate on SDGs (Gaeta, Mantoan 2019). On the other side, this strategy helped us to research new artistic means employed to deliver an idea of sustainability, while it also assisted

artists working on similar topics to break entry barriers to the art market, which are usually difficult to overcome for those who do not linger on mainstream topics or well established practices in the art world (Mantoan 2019, 44). The mechanism of the prize awarded at a recognised art fair allowed us to find artists with a stable career in the sector that had already found the backing of an art dealer, though without finding wide recognition yet because of their social and environmental drive. Furthermore, together with a jury of experts comprising environmental scientists and art critics, we had the chance to pick the winning artist or artists from a much wider pool of candidates, since a total of around 50 artists from 30 different art galleries applied to our call for projects. 1 Hence, it can be said that the artistic contributions created by the winners at our university were definitely more compelling and consistent with regard to art historical references as compared to the independent or rather self-taught artists we had involved prior to the foundation of the award. All in all, the Sustainable Art Prize proved to be a fruitful kind of fieldwork, which fuelled our theoretical research questions on art taken for sustainability purposes, as much as it produced significant works of public art offering a unique opportunity for the practical involvement of various organisations and people.

4 A Strain of Public Art Projects in Venice and Beyond

Upon the inception of the Sustainable Art Prize, over a period of four years we managed to deliver three editions that proved effective in stirring the attention of the Italian art community towards public artworks addressing sustainability concerns; moreover, we were quite successful in gaining pace in the national press with mentions on the first page of the widely-read Sunday cultural edition of the financial newspaper II Sole 24 Ore (Barillà 2018). First and foremost, however, we were interested in the impact that the presence of the winning artists would have on the students involved in the newly commissioned art project. As a matter of fact, the prize really was an invitation to join us in Venice and make a proposal for a public artwork to be produced at our Campus involving the university community (Gaeta, Mantoan 2019). In Venice the project always comprised an open call for students from all faculties to participate, several meetings and workshops with the artists, and a series of lectures with researchers that focused on particular aspects of the topic chosen by the winners. The more we worked together with the winners,² the more questions we had concerning the aims and scope of a sustainable art project. What makes sustainable art really sustainable? In what ways did the participation of students affect the final outcome? How did this experience affect the understanding of sustainability for those directly involved

and for the wider audience? Could the impact of these artistic contributions be measured or evaluated in some way? Attempting to answer these questions was paramount to us, since we represented a public institution – primarily devoted to research and teaching - spending public funds on an artwork. In this regard, we felt a strong responsibility towards our university community and we intended to allow the creation of compelling artworks with the direct participation of our students. Eventually, it all came down to the relationship we were able to build with the winning artists and the mediation we could offer between the artists' ideas and the contribution of the students (Barea, Bonfante, Mantoan 2019). Some of our award winners were particularly confident in building a trust-relationship, since they were already versed in the practices of public art, namely engaging with the audience from the very beginning of the creative process and negotiating its outcome to leave space for the intervention of the public.

The first edition of the Sustainable Art Prize allowed the creation of The Republic of Marvels, a project by the artist duo Vinci/Galesi with the support of aA29 Project Room gallery in the Spring of 2018 (Galesi et al. 2018). Focusing around the concept of a utopian city, The Republic of Marvels became a collective action and a traveling performance with symbols and garments covered with live flowers that aimed at raising awareness on the need for a just society to achieve sustainable development (Mantoan 2018, 7-9). In May 2019 a follow-up was organised upon the invitation from New York University on the occasion of the international conference EDRA50, the most important conference in North America about sustainable urban environments (Gaeta, Mantoan 2019). The artist Sasha Vinci created another participatory project, A Human Flower Wall, conceived as a cohesive flower parade of people that walked across the streets of the Big Apple. Starting from the campus buildings of NYU Tandon School of Engineering in Brooklyn, people joined along the way with banners and signs covered in flowers to create a symbolic moving wall made of people and nature. In the artist's intention, this flower wall contrasted the idea of separation to become instead a bridge towards a more equal and inclusive society without any kind of physical or mental barrier.

Again in 2019, the winner of the second edition Paolo Ciregia was invited to produce the installation *You are (not) welcome* for the project titled *The Defensive City: (im)perceptible barriers in the contemporary urban scenario* with the support of the art gallery L'Elefante. The aim of the project was to stimulate a reflection on the coincidental, random and hidden barriers that work against sustainable development in our cityscapes (Mantoan 2019, 26-8). The artist uncovered and analysed the spread of this so-called urban decorations, which instead lead to inevitable marginalisation being imperceptible to our eyes but sensible for our body. The project helped students to gain awareness of their own urban environment, thus compiling a digital archive of

photographs that captured barriers and modifications in urban landscapes. Although the students were not allowed any direct participation in the aesthetic outcome of the installation by Ciregia, the archive was transformed into a printed and digital catalogue that boosted the thoughts and propositions of our students (Barea, Bonfante, Mantoan 2019).

Although disrupted by the 2020 pandemic, the winner of the third edition Gayle Chong Kwan, supported by Galleria Alberta Pane, set forth to develop the project Waste Matters in strict connection with Ca' Foscari's community of students and academics (Bonicelli, Marinelli 2019). She reconnected her work to the 12th sustainable development goal of the 2030 Agenda of the United Nations, thus reflecting on responsible consumption and production. Her aim was particularly to address the residual value of food waste, which - far from being unproductive - could stimulate a debate over the relevance of reducing the goods and materials we dispose of in order to lessen our impact on the environment. Chong Kwan invited students and scholars to switch perspective on waste, exploring it not simply as displaced matter but as inextricably vibrant matter by means of photographing, mapping, and collecting food waste as in the tradition of herbaria and paper production.

5 Shifting Paradigms and the Artistic Value of Sharing

Originally planned to take place in 2020, circumstances arising from the COVID crisis urged us to protract the third edition of the Sustainable Art Prize over a period of almost two entire years. However, instead of unravelling our efforts, it gave us the opportunity to get the winning artist deeply involved in our university community, although from a safe distance. Having several months to plan the prospected activities and then to actively involve our students, the work with an internationally acclaimed artist keen on participatory practices like Gayle Chong Kwan proved extremely successful in terms of training the students in questioning and researching the consequences of deeply rooted production and consumption paradigms in the Western world. An eclectic artist with a broad cultural background, in her projects Chong Kwan indeed raises several social, political, and environmental issues, which compound different artistic and non-artistic media. Over almost two decades, she concentrated on creating works that combine her genuine ethnographic attitude, in the sense of Hal Foster, with a passion for public engagement to create a distinct poetics centred on the practice of sharing with others (Foster 1996, 1-71).

At a first glance, sharing the past, present, and future appears the most eye-catching issue addressed in her projects. The artist

approaches shared experiences and employs communal activity to light up historical realities and merge them with our world of beliefs, fantasies, and myths. This process leads members of the participating audience to eventually confront themselves with their history and its practical consequences, like she has done in At the Crossroads (2018), a pleasurable banquet at the British Library that subtly challenged the public's food habits in connection with the politics of food transportation and its effects on the environment.3 Furthermore, a constant feature is the process that leads her from everyday to fantasy starting from common objects. In this way, she allows discarded materials to resurface and create something unfamiliar, thus entering a state of mind that balances between public and private, collectiveness and intimacy, openness and secrecy. A paramount example is Wastescape (2012), first produced for the Festival of the World at the Southbank Centre in London, then reprised for the Auckland Arts Festival in 2019.4 On this occasion, she created a cave of stalagmites and stalactites made of empty milk cans that made the public aware of the necessary afterlife of plastic containers (Boetzkes 2016, 51-2). Although resorting to various media, her method interestingly remains that of transforming, processing, and preserving the chosen materials, thus it becomes impossible to characterise her solely as a landscapist, a scenographer, a poet or a public artist. She is all those artists in one person, a person focused on leading from public interest to intimate conversations by reconstructing and transforming the familiar. At an operational level she often retrieves techniques of the Pre-Modern Era, firmly rooted in the idea of the European Wunderkammer, thus creating marvellous images by physical miniature, artificial illumination, optical enlargement, and aesthetic resemblance (Lugli 1992). There is also a strong link to the Victorian past of the United Kingdom and its colonial territories, such as when she employs preservation techniques originally used for collection, study, and display. As can be seen especially in Cockaigne (2004) and Paris Remains (2008). discarded food thus turns into architectural reconstructions and photographic landscapes with a distinct Gothic as well as apocalyptic flair. In her artistic process, Chong Kwan employs methods to stir individual and collective memory, thus creating spaces of projection – for dreams, beliefs, thoughts, myths, and fears – that eventually turn into places of personal recollection. Personal fantasy and collective imagination interact on the salvaged material, usually in such a way that makes recycling, restoring, reclaiming, and recovering not just an artistic gesture. In this regard, with her mobile Memory Tasting Unit (2004), she undertook a communal action that uses a narrative entanglement of food and recollections to involve all senses for a deeper knowledge of our surrounding and behaviour. 6

It seems relevant that her latest projects see an enhancement of this tendency, which grows stronger by the day opening up to

proper collaborative works, such as for the collection of words and images from the dreams of various people during the COVID lockdown embroidered in *Dream Tapestry* (2020).⁷

Gayle Chong Kwan's distinctive touch is that of an international artist deeply involved in sustainability issues, since her wide cultural background allows her to employ artistic strategies to challenge landscape, environment, and cultural ownership. As a result, her works speak of liberation from cultural appropriation and social imperialism via the reversal of a dominant perspective, thus contributing to a shift in paradigms within the community of participant public.

6 Not Quite at the End of a Sustainable Art Journey

Drawing to some conclusions, this contribution may have served as a survey on the general field of art and sustainability as it developed over the last decade, as well as to report and critically ponder on the fieldwork in public art done at Ca' Foscari University of Venice, particularly since the inception of the Sustainable Art Prize at the ArtVerona fair. Furthermore, the principal aim was to argue in favour of the full employment of aesthetic thinking and artistic practices in the quest to shape the concept of sustainability and deliver behavioural change. Indeed, sustainability science is facing a crisis of agency and public knowledge production, thus the field would benefit from appropriating and experimenting with types of imaginative knowledge and research provided by art through the process of aesthetic understanding. The possibilities of a contribution of art to sustainable science are only beginning to be tapped and our project at Ca' Foscari offered an opportunity to start understanding its potential, particularly as regards the kind of experiential knowledge and environmental ethics that can lead towards a truly sustainable behaviour. Our fieldwork was based on varied disciplinary approaches – holding together aesthetic and artistic stances, social and economic factors, behavioural and environmental evaluations – such as to explore what stimuli could foster change in the context of sustainable development. It shall be noted that this is a general tendency current and future EU policies require explicitly, in an attempt to understand how culture and the arts may effectively contribute to a sustainable society. As regards recent European programmes, the topic "Inclusive and sustainable growth through cultural and creative industries and the arts" was already launched under Horizon 2020, while the New European Agenda for Culture is set to develop an impact framework for assessing cultural cross-overs, such as interactions between culture and other policy areas - health, welfare, innovation, and urban policy- in order to integrate cultural activities in sustainable development frameworks.9

Nevertheless, our work is not vet done, both in scholarly research and public art projects for sustainability. The participatory practices and collaborative artworks explored at Ca' Foscari only encouraged us to produce further fieldwork and heighten our attentiveness for the assessment of art in prompting a place-based and culturally-specific agency, as well as of the degree to which a creative approach results in stable behavioural change. A thorough exploration of art as sustainability change agent is still needed, especially with regard to quantitative and qualitative methods of measurement, such as to determine the potential of certain kind of artistic practices as facilitators of nonformal learning. So far, evidence emerging from our fieldwork suggests that involving experienced artists and engaging the public offer the opportunity to study how art operates within social discourse and affects our cultural construction of sustainability. as well as how it operates within society, producing an effect on behavioural change. Resorting to the empirical work done at Ca' Foscari, in the coming years we hope to deliver an analysis and organise an international platform that may offer insights and early answers on fundamental questions concerning the impact of public art on sustainability matters. The list of open tasks is long and relevant, since several issues need proper investigation, such as how far artworks can act as a catalyst for debates about sustainability and instigate further dialogue between diverse stakeholders; or how artistic contributions may shape the aesthetic understanding of sustainability, thus offering experiential knowledge on topics related to sustainable development. We must also explore whether art is capable of addressing audiences that are not sensible to sustainability topics and maybe even prompt them to behavioural change. Eventually, we still need to assess which sustainability topics can be activated through public art, as well as which artistic strategies may achieve a stronger involvement of communities towards the accomplishment of sustainable development.

After involving dozen of artists and several hundred students, as well as the wider community at Ca' Foscari and in Venice, we have not reached the end of our journey yet. Still, we have a growing appetite for exploring the potential and impact of artistic interventions in the context of sustainability. At the same time, we long to break some more barriers that may help public artists spread sustainability concerns inside the established art world and beyond, perhaps finding autonomous support other than public financing. Building on eight years of sustainable art projects, we cannot wait to be involved in what comes next.

Notes

- 1 For further information see the section devoted to the Sustainable Art Prize on the homepage of Ca' Foscari Sostenibile. https://www.unive.it/pag/31128/,
- 2 See for instance the articulated activities programmed by Sustainable Ca' Foscari for *The Republic of Marvels* by Vinci/Galesi in Spring 2018 and its follow up *A Human Flower Wall* by Sasha Vinci in New York in Spring 2019: https://www.unive.it/pag/33742/?L=0.
- **3** See British Library, special event: *At the Crossroads: Microclimate Sensory Banquet* by Gayle Chong Kwan, Saturday 2 June 2018, 19:00-21:00. https://www.bl.uk/events/at-the-crossroads-microclimate-sensory-banquet#.
- **4** See *Wastescapes* by Gayle Chong Kwan, 22 July 2012. https://www.frameweb.com/article/wastescapes-by-gayle-chong-kwan.
- **5** See *Art on the Underground: Cockaigne* by Gayle Chong Kwan, 30 November 2006-30 December 2006. https://art.tfl.gov.uk/projects/cockaigne/.
- **6** See Love Difference Artistic Movement for an InterMediterranean Politic: Five Spice Short-bread di Gayle Chong Kwan. http://www.lovedifference.org/2002-2011/it/network/projects/pasticcerie/proposte/pasticcerie_chongkwan.htm.
- **7** See Welcome to the Forest A cultural hub for Waltham Forest: Dream Tapestry by Gayle Chong Kwan, Virtual Culture Programme 2020. https://wfculture.co.uk/DreamTapestry.
- **8** See all projects funded under this programme or topic: https://cordis.europa.eu/programme/id/H2020_TRANSFORMATIONS-06-2018/it.
- **9** See communication from the commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *A New European Agenda for Culture. SWD(2018) 267 final.* https://ec.europa.eu/culture/document/new-european-agenda-culture-swd2018-267-final.

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Half-Way Between Public and Sustainable

Strategies and Impact Assessment of Contemporary Art Practices

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Abstract Public art and art for sustainability play an increasingly significant role in the overview of contemporary artistic practices. These are related to the social, cultural and economic fabric of the communities' reasoning around burning issues of the present time such as climate change or gender equality. Firstly, this paper aims to highlight some differences and analogies between public and sustainable art by showing some examples and considerations concerning the definition of Sustainable Development promoted by the Bruntland Commission and the objectives of the UN 2030 Agenda; secondly, it intends to analyse the birth and spread of these practices, from the movements of the 1960s and 1970s to the relational aesthetics of the 1990s. Against the background of these experiences and in collaboration with Ca' Foscari University, Gayle Chong Kwan has developed her project discussing some issues related to the concepts of food and waste. Therefore, the chapter will also focus on contemporary art and food, from the innovations promoted by the first historical avant-gardes such as Futurism to the conceptual artwork of Joseph Beuys up to the aesthetics of Rirkrit Tiravanija. Sharing and discussing is at the heart of the poetics of these artists, as well as of Gayle Chong Kwan, who tries to act in the context in order to modify it through new interpretations. Finally, the last part of the paper examines some case studies and which strategies can be adopted or observed to understand the impact of these artistic practices.

Keywords Public art. Sustainability. Public engagement. Participatory practices. Impact assessment.

1 Reflections Stirred by an Art Project Named Waste Matters

Gayle Chong Kwan's artistic project Waste Matters, developed with Ca' Foscari University community, took shape in the wake of global events, unfolding around some compelling issues including the multifaceted and difficult relationship between food and sustainability. The artistic intervention may be framed in the context of public and participatory art, since it is focused on the involvement of multiple actors, from students to researchers and other players belonging to the art system. The project carried out by the artist was able to survive stormy times: uncertainties and programme changes have marked its path, but they have not stopped its willpower. At a time when our bodies could not embrace each other and relationships were dematerialised - inexorably becoming virtual, fast, and abstract - Gayle Chong Kwan led our community to think about important issues connected to art and sustainability, doing so in a delicate yet untiring way, working inexhaustibly on the process. While the entire globe was caught up in the fight against a virus, the old and dear concept of 'normality' collapsed, sweeping away our most docile certainties that anchored lame securities towards an era of pandemic. At the beginning of the twentieth century, when certainties were already wavering, literary and artistic avantgardes were strongly influenced by scientific discoveries, by the ferment that led to two World Wars, as well as by the dissolution of the concept of time and space. In a battle of fury, of pure rage that spread when certainties faltered, everything became suddenly 'Dada' – meaningless – like a nude portrait that comes down the stairs done in fragments (Foster et al. 2016). The same ferocity and anger that led to those world conflicts find a different dimension today, one that is difficult to understand: if we allow ourselves to be overwhelmed by anger, we will not be able to find valid solutions. In a time that seems suspended, and in the urgent need to come back to a different as well as more human dimension, art emerges on the contemporary scene as a means to create relationships, in a desperate search of those bonds we have not been able to cultivate. Save - perhaps - the relationships built in the digital bubble, a place that, despite the mistrust on the subject, has nevertheless proved to be a vector and catalyst of emotions. Gayle Chong Kwan's project is located in this deeply human dimension in which art is a vector for relationships and awareness in the wake of previous artistic movements that are part of the wider realm of Public and Relational aesthetics. Therefore, it is now necessary to turn the attention to some significant experiences related to public and sustainable art that form the background of Gavle Chong Kwan's practice in Venice.

2 Connections and Contaminations between Public Art and Sustainability

First of all, it is crucial to focus our attention on the last two decades when a growing number of scholars and artists began to deal with issues of sustainable development centring their research on the ecological crisis we are still experiencing. Since then, issues such as climate change, global warming, and the impact of human action on the environment became increasingly widespread. This is highlighted by the emergence of some recent trends such as the pioneering experiences of the wellknown curator Lucy Lippard, in 2007 in Colorado, USA, or some European initiatives such as those promoted by Julie's Bicycle in the United Kingdom, COAL in France or the Pan-European Green Art Lab Alliance. These studies are also linked to multiple scientific publications like for instance Art and Sustainability by the scholar Sacha Kagan or "Form, Art and the Environment" by Nathalie Blanc and Barbara Benis, which aim at highlighting the importance of these issues in the present time at an international academic level.

In connection with this, the overall aim is to observe some contemporary artistic practices connected to public art that revolve around the term of 'sustainable art' and ponder about the impact that similar actions have on the environment. When we look at Public Art practices that relate to sustainability, the questions we must ask ourselves concern how these projects really affect the cultural fabric they try to question and what role collectivity plays as public, curators or artistic operators. A heightened attention to the context and the process lies at the heart of the poetics related to these practices, although it may well happen that such contributions eventually are not so effective in the given context. In the latter cases, indeed, the artistic act remains exclusive and unintelligible. Therefore, the artist continues to place himself outside society, in a dimension ranging from brilliant and misunderstood. As a matter of fact, there are numerous public art experiences that highlight these problems, including the installation Ago, Filo e Nodo (2000) by Claes Oldenburg and Coosje van Bruggen in Milan, which was conceived not only as a symbol of Milanese industriousness, but also as a reference to a desire to metaphorically mend different local areas of the territory, though it did not seem to fully meet the initial expectations (Mazzucotelli Salice 2015, 9-12). Furthermore, if we are to study early attempts at making Sustainable Art, then it is necessary to compare this somehow peculiar art category with Public Art in general, strictly keeping the meaning of the term 'sustainability' in mind. The latter concerns many areas including social inclusiveness, gender equality, responsible consumption. and – obviously – the environment, as highlighted by the definition of "sustainable development" promoted by the Bruntland Commission in the report Our Common Future published in 1987.

Sustainable development was thus defined as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs, while another major contribution to this discussion was granted by the objectives of the 2030 Agenda signed by all 193 UN countries.

Under the multifaceted range of artistic practices relating to Public Art there are also actions close to sustainable development. Considering that the themes explored in Public Art can take up multiple forms, these artistic expressions can intertwine their paths and suggest examples of common reflection to those who wish to deal with such topics (Mazzucotelli Salice 2015, 136). However, it must be noted that, while some more or less established definitions already exist for Public Art, the field is still quite open for Sustainable Art. In fact, as seen above, it is only since the late 1980s that the term 'sustainability' began to be used in connection with culture (Braddock et al. 2014). As is well known, the expression 'Public Art' refers to those artistic works that take place in cities and natural landscapes and therefore located outside institutional spaces such as museums and galleries, although the possible interpretations of the underlying concepts are much more multifaceted (Mazzucotelli Salice 2015). Some early examples can already be found in the nineteenth century embellishment or in the propaganda and social concepts of the 1920s and 1930s. However, the ideological experiments of the 1960s and 1970s were surely more significant and then merged into the relational poetics of the 1990s. Among these experiments, we might mention the first happenings, the Fluxus experience, Process Art, and further movements that fought to bring art closer to life - to one's own and to others' daily life (Le Donne 2012). Therefore, these considerations impose an open approach for the understanding of today's Public Art, which, above all, consists of a principle and a process (Birrozzi, Pugliese 2007.1) that artists employ through their own vision actively engaging with the environment and collaborating with the public in the creation of awareness and common platforms (Comunian 2006).

As for Sustainable Art, however, scholarly research is more recent, even if the historical-artistic references are linked to the above-mentioned experiences, as much as they were inspired by Minimalism, Conceptualism and Anti-form (Pancotto 2010, 35). In particular, with Land Art artists began to use the natural element as the core of their research, although at times in an invasive way and disregarding the landscape itself, as in the case of the famous *Spiral Jetty* (1970) by Robert Smithson or *The Lightning Field* (1977) by Walter De Maria. Also significant was the *Earthworks* exhibition (1968), in which artists including Claes Oldenburg, Richard Long, Günther Uecker and Hans Haacke presented at the Dwan Gallery in New York some works that caused a sensation and were too strong or not suitable to be sold, since most of them had been exhibited in the form of photographic documentation because they were actions that took place in large and natural spaces

(Pesapane 2012), Furthermore, during the mid-sixties there was the Italian Arte Povera, which thanks to the poetics of artists including Michelangelo Pistoletto and Mario Merz – with his famous Igloo – became the mouthpiece for issues related to the fragile condition of humankind and the environment (Celant 2011, 96). These can be considered some of the influences that led to the development of artistic instances linked to sustainability. Moreover, in 2002. researcher Hildegard Kurt organised a conference at the Akademie der Künste in Berlin, and published a collective publication on the relationships between sustainability, culture and art. The year before, in 2001, she was involved in the organisation of a conference entitled Aesthetics of sustainability, at the Evangelical Academy of Tutzing. The participants in Tutzing signed a *Tutzinger* Manifest, which is now recognised as one of the early calls for the recognition of culture as a fundamental basis for sustainability. Subsequently, the keyword 'sustainability' became increasingly widespread, generating reflections and practices that explore the interplay between social and ecological criticism and contemporary art. However, members of the art world at the time tended to limit the topic of sustainability to restricted environmental issues, but some scholars such as Maja and Reuben Fowkes proposed the "principles of sustainability in contemporary art" hence broadening the perspective. They stated that Sustainable Art "draws on radical critique of art and society and the dematerialized practices of conceptual art to offer sustainable alternatives in art and life" (Fowkes, Fowkes 2006), pointing at the reflexive and critical qualities involved in the search process of sustainability. The arguments and concepts of Kurt or Fowkes, although often cited. are however not taken for granted or generally recognised by the contemporary art world (Kaghan 2011).

3 From Relational Aesthetics to Food Art as a Participatory Experience

Moving the focus to the artistic practices that spread since the 1990s, it is important to remember the role of relational aesthetics to understand the artistic process of Gayle Chong Kwan. The term Relational Aesthetics was "created by curator Nicolas Bourriaud in the 1990s to describe the tendency to make art based on, or inspired by, human relations and their social context". Some projects linked to Relational Aesthetics have highlighted the relationship between art and food, such as in the case of Rirkrit Tiravanija's works. In his performances, food is specifically shared with the participants in a process of exchange and relationship-building. As a matter of fact, sharing a meal with others is a way to move towards the aesthetic realm, shifting the attention from a finished object to the process of its making, as well as to the mechanism of sociability that derives from it (Bourriaud 2010,

69). Among the most important issues highlighted in Chong Kwan's project for Venice, there is indeed the relationship that occurs between food and art, since in the workshops held with the students a reflection emerged, particularly on how we perceive and experience food waste. However, the link between art and food is even stronger, as it was addressed by numerous artists during the 20th century. For instance, early avant-gardes such as Futurism advanced a 'new way to think about food' by staging performative events, opening a restaurant, launching a dedicated manifesto, and writing a cookbook. These strategies aimed at stimulating emotional and intellectual responses through the performance and the deconstruction/reconstruction of the concept of traditional food. Still today, artists who choose to incorporate food in their work tend to do so as a way to challenge mainstream expectations, thus food art discloses a potential as a form of counterculture, an attitude already evident in Dadaism and Futurism (Bottinelli. D'Ayala Valva 2017, 372). Moreover, since the 1960s, European and North American neo avant-gardes – among which Fluxus, Eat Art and Arte Povera – returned to the incorporation of food in art projects that adopted a confrontational approach. While at an iconographical level food inhabited still lives and banquet scenes for centuries, the avant-gardes - old and new - legitimised the entrance of food into the palette of artistic materials. Since then the actual experience with food as sculptural material, as well as the performative acts of eating or processing food, became part of the artistic language, particularly in the context of the avantgardes. During the 1960s and 1970s, Food Art reinvented the role of the audience, turning it into active participants in projects of edible art, feminist performance, or installation art, like the collaborative pieces created for Womanhouse (1972) in Los Angeles revisited the domestic space of cooking and dining to question accepted gender roles (Foster et al. 2016). Subsequently, since the 1990s practices in Relational Aesthetics often include food as a generator of sharing, generosity, and giving, such as to counter the culture of isolation that characterises capitalist societies. In many cases, food is used as a tool for community building with artists deliberately referencing post-structuralist studies from the 1960s and 1970s (Lévi-Strauss 1983). Moreover, the impact of food on ecology, economy, and sustainability is suggested by several works of Joseph Beuys. Joseph Beuys became an exemplum virtutis, since his artworks tried to give an answer to society's exertion towards equality, further attempting to reconnect organic materials with human life. Indeed, some of his sculptural projects included edible ingredients – honey or lard – that were put in connection with episodes from the artist's biography:

Beusyan art conceptualizes food in a number of ways. Selfcooking both as an important change maker and as a convivial and creative activity available to everyone every day; the use of

foodstuff as material for artistic work; the production of food as an essential issue of global economy and politics, particularly with regard to the fundamental link between agriculture and eating culture in terms of ecologically sustainable relations to nature. (Bottinelli, D'Ayala Valva 2017, 633)

Over the last three decades, curators and even philosophers explored the ethical connotation of food, many of them feeling the pressure to shop and eat responsibly, healthfully and sustainably. In particular, the exhibition Eating the Universe (2009-10) in Düsseldorf, Germany, focused on food as a metaphorical appropriation of knowledge where the artists presented food from various perspectives (Bottinelli, D'Avala Valva 2017). In addition. contemporary art practices are shaped by an ethnographic attitude, as defined by Hal Foster, that aims at understanding the social context and modifying it through new interpretations (Foster 1996). Such influences are evident in artists such as Chong Kwan, yet it is not easy to place oneself in a condition that counters the isolationism of capitalist alienation (Bourriaud 2010, 111). As a matter of fact, these premises may seem convenient, but it is important to ask ourselves whether these artistic practices really have consequences on the human and natural environment.

4 Ways and Standards to Assess the Impact of Art on Sustainability

Be it Public Art or, specifically, art projects addressing sustainability issues, it is paramount to explore how much they can lead to an effective behavioural or societal change. For this reason, it is necessary to consider what options could be useful to assess the impact of similar projects in a given context. The crucial point is that there is no data capable of measuring the real impact of these experiences and art struggles to be a true tool for governance or an expression of social, cultural, and political resilience for the creation of new models. However, observing the artist's role from an interdisciplinary perspective comparing art, archaeology, and sustainability studies, it might be possible to produce a few original considerations. In particular, if we consider the sustainability studies, we could focus our attention on three categories often adopted to steer sustainable behaviour such as tools, guidance, and certifications. Tools are usually online calculators and databases that offer automated but targeted information, such as carbon auditing and footprint results for arts and the wider cultural sector, or a specific creative industry. Three examples of these tools are Julie's Bicycle's Creative IG Tools. the Carbon' Clap, and Eco Art South Florida. Julie's Bicycle's Creative IG Tools are a set of free carbon calculators designed

specifically for creative industries with the help of environmental experts, taking into account all possible measurement challenges, hence accurately assessing the impact in terms of energy, water, waste, travel, and resources. The Carbon' Clap is a French carbon measurement tool for the evaluation of audiovisual productions,4 while Eco Art South Florida uses a GIS mapping tool developed by Dartmouth college students to help identify sites with the highest potential for establishing so-called 'Eco Art nodes', which host and run community environmental art and education programmes. 5 With regard to guidance, they usually involve publications, websites, and apps that gather best practices, advice, worksheets, templates, and case studies to inspire improved environmental performance. Three examples are: Sustainability and Contemporary Art, Sustainable Event Management System (SEMS), and Curating Cities. Sustainability and Contemporary Art is a blog exploring the deepening relationship between contemporary art and notions of environmental sustainability. The aim is to both track the recent history of these ideas and highlight current developments in the field of sustainability and contemporary art. Sustainable Event Management System (SEMS) is a comprehensive sustainability management system designed for all event and meeting organisers. Implementation of SEMS reduces the economic, social, and environmental impact of an event and provides a reporting mechanism for attendees, staff, customers, and shareholders. Finally, Curating Cities is a database that maps the emerging, yet increasingly important field of eco-sustainable public art. It was developed as a resource for researchers, academics, artists, curators, and educators promoting sustainability via public art. In addition to descriptive information, the database evaluates the aims and outcomes of each project as well as the external constraints – and subsequent negotiations – that influence the production of public artworks.8

Certifications, standards, and awards are developed to assess, reward or simply assure that a product or service meets predetermined environmental criteria. There are various awards aimed at green, ecological, environmental, and sustainable art or arts activities that function as incentives or rewards for incorporating sustainable thinking in the arts, specifically at an environmental level. For instance, the Arts Council of Wales identified the Green Dragon Environmental Standard, a stepped standard recognising effective environmental management, while the Environment Awards promoted by European Environment Foundation is a database of environmental awards covering many sectors, some suitable also for arts and culture.

The Sustainable Art Prize promoted by Ca' Foscari University with the ArtVerona contemporary art fair may be included in this overview, because it is an attempt to deepen the involvement in society and to go beyond the borders of academic institutions. In 2017 Ca' Foscari University connected with ArtVerona to launch

a prize that could foster greater awareness and encourage the commitment of artists to major global challenges. The prize is awarded to artists that are active in the promotion of sustainability and it entails the commission of a new work involving students, researchers, and the wider Venetian community, thus providing a unique opportunity for dialogue between different stakeholders. So far, the winning projects reflected on specific sustainable development goals, but overall they focused on the urgency to solve the clash between human beings and their natural context. In a sense, the prize revealed the perspective of contemporary artists, whose aim was to pose new questions and generate challenging reflections on social, political, and ecological issues. Since 2013, the Sustainable Ca' Foscari Office has been working on projects that connected the world of art and sustainability, involving a variety of players – students, artists, professors, and researchers, as well as the local and international communities – and helping to increase awareness of global change by disseminating scientific knowledge and sharing solutions. One of the reasons behind these projects was to emphasise the value of art as an emotional language per se, as opposed to rational approaches, and its role in reaching out to students and the general public to share and communicate sustainability principles (Barea, Gaeta 2020). On this background, Gayle Chong Kwan developed the project Waste Matters at Ca' Foscari as the winner of the Sustainable Art Prize 2019. Together with selected students she explored food waste as a topic, our relationship with food, the city, our bodies, and the life of waste, through research, online workshops, and various activities online and in Venice. The project photographed, mapped, and collected food waste, drawing on the traditions of the herbarium and paper production, thus connecting to the 12th goal of the 2030 Agenda of the United Nations for the Sustainable Development devoted to "Responsible consumption and production",13 which reflects on the value of food waste, while stimulating a debate on the importance of reducing waste in order to reduce our impact on the environment.

5 Impact and Involvement in the Wake of Preventive Archaeology

Drawing towards an end, by broadening our reflection on assessment methods to an interdisciplinary field, it is possible to appreciate the *Report on progress towards the SDGS in an EU context* (2018), ¹⁴ which provides an analysis and impact assessment index around each goal of the 2030 Agenda. It is therefore legitimate to try to understand how and if an artistic intervention can be linked to these indicators. Sustainability reporting, as promoted by the GRI Standards, is an organisational

practice of reporting publicly on economic, environmental, and/ or social impact, hence measuring the contribution – be it positive or negative - towards the goal of sustainable development. In the GRI Standards, unless otherwise stated, 'impact' refers to the effect an organisation has on the economy, the environment, and society, which in turn can indicate its contribution – again, positive or negative – to sustainable development. The reporting principles are fundamental to achieve high quality sustainability reporting and an organisation is required to apply them, if it wants to claim that its sustainability report has been prepared in accordance with the GRI Standards. These principles could also be applied to an artistic organisation for its own projects, but also to individual artists during the planning of a specific artwork or project. In addition, it is also significant to consider - as a further source of interest – the study of the environmental impact as highlighted in some academic studies relating to environmental assessment. For instance, the Environmental Impact Assessment (EIA) (1985) is one of the oldest pieces of EU environmental legislation and over the years proved to be one of the most important ones. 15 All this comes with the aim to reduce their environmental impact and make the projects more sustainable, thus contributing to sustainable development. Previously, the National Policy Act (NEPA) (1969) in the USA¹⁶ promoted deliberative and collaborative approaches to planning and decision-making processes within the framework of sustainability, while also the EIA pledges to be an integral part of any project development and design processes. These examples suggest that even in art it would be preferable to work more constructively with the proponents and stakeholders of a prospective project, in order to develop a process that meets the needs of all parties, and in so doing results in works that are consistent with the environmental and social aspirations of local communities (Morgan 2012). Finally, drawing on disciplines close to the art history field, such as archaeology, we might resort to archaeological practices in terms of prevention and impact assessment. Just as preventive archaeology is concerned with predicting the results of its actions, for instance pondering whether it is better to protect an existing site or leave it as it is by not interfering or enhancing it through intrusive practices, art interventions could also research on its reception by the public and its effects on the context in due advance (Calaon, Pizzinato 2011). These considerations might well apply to contemporary art by simply carrying out a preventive impact research activity, or one that is able to foresee the action's repercussions on the existing social, economic or environmental structures, perhaps by studying the context itself from a historical and artistic point of view.

In conclusion, it is perhaps quite complicated to give a univocal answer on the impact of projects linked to public and sustainable art, as these artistic practices involve different players in a given community, as a matter of fact, the relationships between the

stakeholders are defined by their interaction and the ways they present themselves can vary a lot. Artistic practices linked to sustainability see the artist transforming their identity from an individual to a plurality, not only because the artist acts within a creative group, but also because he or she is the one who develops an attitude of engagement and dialogue with the public. To help the artist and the entire art system make a turn for the better, all citizens should take measures that help understand how a place really is in relation to our experience, identity, and memory – that is, a context in which art itself acts looking for an impact in its own way, even though this impact is quite hard to measure (Rossi 2016, 20). It would also be equally important to highlight the contradictory system that governs exclusive policies, to overturn the opposing mechanisms of our culture – hence, the role of art is precisely that of revealing what is deeply hidden and imperceptibly intertwined in this realm (Barea 2019). The outcome of this necessary dialogue is usually unpredictable, and sometimes even conflicting, because the artist needs to give space to another entity beside themselves. It takes a special kind of artist, one who knows how to connect collective sensitivities to territorial necessities by means of an artistic process that involves a continuous dialogue between academic research, creative experience, and theoretical reflection (Balzola, Rosa 2011, 12-15). Gayle Chong Kwan's project for Ca' Foscari was developed in a pandemic, a time of change in relationships and of rediscovery of the other. The final result was born out of a long and intricate participatory process, thus highlighting the perseverance and continuous redefinition of meanings around the concept of food, art, and waste in such a delicate, urgent, and collective dimension.

Notes

- 1 For further information see the Report of the World Commission on Environment and Development: Our Common Future on http://www.un-documents.net/our-common-future.pdf.
- For further information about the definition of Relational Aesthetics see https://www.tate.org.uk/art/art-terms/r/relational-aesthetics.
- 3 See Julie's Bicycle's Creative IG Tools https://juliesbicycle.com/reporting/.
- See the *Ecoprod Guide for Sustainable Film and TV Production* https://www.ecoprod.com/images/site/ECOPROD_GUIDE2017_EN_NUM.pdf and a carbon calculator, fact sheets and testimonies https://www.ecoprod.com/en/.
- See "Programs and Service" of EcoArt South Florida: https://animatingdemocracy.org/organization/ecoart-south-florida.
- See the blog published by Sustainability and Contemporary Art: https://artandsustainability.wordpress.com/posts/.
- See Sustainable Event Management System (SEMS): https://www.sgs.com/en/sustainability/management-and-compliance/organization-and-events/iso-20121-awareness-course-sustainable-event-management.
- 8 See the Curating Cities platform: http://www.niea.unsw.edu.au/research/projects/curating-cities-database-eco-public-art.
- See the Green Dragon Environmental Standard: https://www.greenbusinesscentre.org.uk/green-dragon-environmental-standard.
- See Environmental Awards: https://www.european-environment-foundation.eu/en-en/awards/environmental-awards.
- See IFACCA, *D'art Report, 34b the Arts and Environmental Sustainability: An International Overview, 2014: https://ifacca.org/media/filer_public/ae/39/ae3972ff-4e7c-43a5-a02d-33c08df8dd43/ifacca_dart_report_34b_final.pdf.*
- 12 See the Sustainable Art Prize: https://www.unive.it/pag/31128/.
- **13** See the page dedicated to the *Waste Matters* artistic project: https://www.unive.it/pag/40903/.
- See Report on Progress Towards the SDGS in an EU Context (2018): https://ec.europa.eu/eurostat/web/products-statistical-books/-/ks-01-18-656.
- See *Environmental Impact Assessment* EIA (1985): https://ec.europa.eu/environment/eia/eia-legalcontext.htm.
- See *The National Environmental Policy Act* (NEPA) (1969): https://www.energy.gov/nepa/downloads/national-environmental-policy-act-1969.

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I am an artist whose photographs, sculptures, events, and installations are exhibited internationally, both in galleries and in the public realm. Much of my art practice has been concerned with exploring waste as a material, as a temporal state, as an atmosphere, as a process, as a sensory experience, and in terms of understanding through both intimacy and distance. I use a methodology of *Imaginal Travel*, which is an interplay between interiority and exteriority, an exploration of individual and collective, in which objects, people, process, and activities move between each other with the potential to re-organise themselves in different configurations.

In previous works I have explored aspects of waste, consumption, tourism and development. *Cockaigne*, 2004, is a series of twelve large-format photographs based on fourteenth-

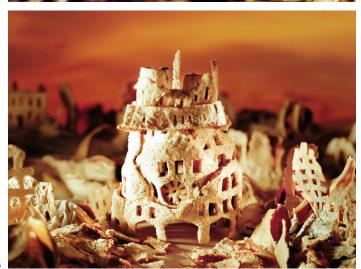


century ideas of a glutton's paradise. Each depicts a mythical landscape constructed from a single foodstuff, which explore the exotic and the way in which tourism is altering, theatricalising, and consuming the landscape of Mauritius (figs 1-2).

In Paris Remains, 2009, I created a ruined landscape from leftover discarded food I collected from pavements (figs 3-5). In Wastescape, 2012, I brought together thousands of used plastic bottles as an immersive installation of stalactites and stalagmites (figs 6-7). Interspersed throughout the installation was sound recordings of people's experience of waste, including those who live in Moravia in Medellin in Colombia, an area built on and out of the city's waste, and who live near Bywaters Waste Management Centre in Bow, which manages the Southbank Centre's waste







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In *The Golden Tide*, 2012, I documented the discarded and found waste objects that I encountered along the Thames Estuary stretch of water in London (figs 8-10). In *Anthropo-scene*, 2015, I collected the secondary waste from an archaeological dig, that would have been thrown away, as contemporary, historic and archaeological objects and materials, juxtaposing excavation and construction, ruin and renewal, and confounding their chronology in order to question what we leave to posterity (fig. 11).

In 2019 I was awarded the Sustainable Art Prize by ArtVerona and Sustainable Ca' Foscari University in Venice. As recipient of the prize I was invited to develop a project with students and academics at Ca' Foscari University to explore issues of sustainability related to one or more of the seventeen goals of the UN 2030 Agenda for Sustainable Development. I decided to develop practical and theoretical sessions to explore different perspectives on our lived experience of waste, which I called Waste Matters. Whilst previous prize winners had developed projects in which students became involved in the physical making of the work. I wanted to involve them from the first moment in a collective thinking and making process. I wanted the work to develop out of the sessions, as a form of devised practice in which the process is not determined from the outset, but in which outcomes are temporal manifestations of the thinking and making together. I also brought this approach to the sessions by developing each in relation to reflections on the previous session, and in response to the students' engagement, the academics' research, and by thinking through relevant texts.

How to come up with a title for the project and artwork that is focused enough to form some kind of framework but also open enough to allow for the development of the project and work? The loose title of the project, *Waste Matters*, pivots between the two words and their meanings and has an urgency to stress the importance of its subject. Themes that I focused on included waste in terms of matter out of place, classification and colonialism, the *herbarium* and botanical, waste as vibrant matter, mapping domestic and societal waste, and exploring food, recipes, and familial memories through waste.

The earliest recorded uses of the word 'waste' accounted for a sense of emptiness, which is reflected in its Latin etymology: we take 'waste' from *vastus*, giving waste the same Latin root as the word 'vast', for spaces that are void, immense, or enormous. The word 'matter' is derived from the Latin word *materia*, meaning 'wood', or 'timber', in the sense of 'material', as distinct from 'mind' or 'form'. From around 1200, it came to mean 'a subject of a literary work, content of what is written, main theme'; the sense of 'narrative, tale, story' is from c1300. The meaning of a 'physical substance generally' is from mid-fourteenth century and from the late fourteenth century it meant 'piece of business, affair, activity, situation, subject of debate or controversy, or a question under discussion'.



I started to explore how we could think about waste as a process, a flux, a situation in constant movement, and an uninterrupted process of change transforming what has been created. I began by exploring Mary Douglas' Purity and Danger (2010), which was originally published in 1966. She explained: "[a]s we know it, dirt is essentially disorder. There is no such thing as absolute dirt: it exists in the eye of the beholder" (2010, 2). Douglas writes about dirt as an ordering system: "[s]hoes are not dirty in themselves, but it is dirty to place them on the dining-table; food is not dirty in itself, but it is dirty to leave cooking utensils in the bedroom, or food bespattered on clothing; similarly, bathroom equipment in the drawing room; clothing lying on chairs; outdoor things indoors; upstairs things downstairs; under-clothing appearing where other-clothing should be, and so on. In short, our pollution behaviour is the reaction which condemns any object or idea likely to confuse or contradict cherished classifications" (45). For Douglas, "[i]f we can abstract pathogenicity and hygiene from our notion of dirt, we are left with the

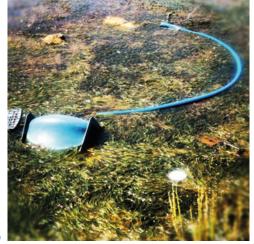


old definition of dirt as matter out of place. This is a very suggestive approach. It implies two conditions: a set of ordered relations and a contravention of that order. Dirt then, is never a unique, isolated event. Where there is dirt there is system. Dirt is the by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements" (44). But for Douglas, in this disorder is the potential for infinite patterning (117).

I was also interested in Bennett's thinking on matter in Vibrant Matter, a Political Ecology of Things (2010). She writes that, "[i]n the eating encounter, all bodies are shown to be but temporary congealments of a materiality that is in a process of becoming, is hustle and flow punctuated by sedimentation and substance" (49). Waste is symptomatic of life's spatio-temporal continuation, it is semi-biotic, and there is a physiological reminiscence in waste: "reminiscence is almost always present where there is waste: waste consists of leftovers that contain the memory or echo of the matter they used to be. Waste, even if it does not putrefy, is abject because it







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is characterised by misplaced, animating excess, inflecting it with the physiological reminiscence of decay" (8). Bennett describes 'thingpower': "[t]hing-power perhaps has the rhetorical advantage of calling to mind a childhood sense of the world as filled with all sorts of animate beings, some human, some not, some organic, some not. It draws attention to an efficacy of objects in excess of the human meanings, designs, or purposes they express or serve. Thing-power may thus be a good starting point for thinking beyond the life-matter binary, the dominant organizational principle of adult experience" (20). Bennett discusses the connectedness of effect and harm: "[t]he ethical aim becomes to distribute value more generously, to bodies as such. Such a newfound attentiveness to matter and its powers will not solve the problem of human exploitation or oppression, but it can inspire a greater sense of the extent to which all bodies are kin in the sense of inextricably enmeshed in a dense network of relations. And in a knotted world of vibrant matter, to harm one section of the web may very well be to harm oneself" (13).

I started to explore issues and activities relating to waste, focused around a video work. Plot. that I made in 2015 (figs 12-13). I shot the footage in Mauritius, around the intricacies of a small, supposedly 'empty' plot of land in the north of the island, which was once owned by my father. The plot was actually teeming with life. Amongst the rubbish and leftover building materials, insects, birds, and animals took shelter in what felt like a small respite of space in the midst of the concrete smallscale tourist developments built in the area. It was whilst taking a break from filming that I made my first visit to Curepipe Botanical Garden, where I came across the last known remaining tree of the hyophorbe amaricaulis palm species, which found itself framed by the botanical garden, which was established in 1870. A hundred years earlier the main botanical garden on the island, Pamplemousses Botanical Garden, had been set up by the French colonial administration. It was under the British colonial administration that the smaller garden at Curepipe was established, with the initial goal of cultivating varieties of plants that could not grow in the less temperate regions of the island. This last remaining tree of a species and the ideas of emptiness of a plot of land converged into thinking through 'waste' in terms of ideas of categorisation, framing, and visibility and invisibility.

Botanical gardens continued to have a role in the story of the palm. On my return to the UK, I visited the laboratories at Kew Gardens in London where I spoke to Dr Sarasan, who in 2007 had travelled to Mauritius to collect seeds from the tree, in the hope that it could be propagated. He explained that his attempts failed as the seeds produced by the tree were infertile, and the tissue cultivation experiments did not yield plants that survived outside the test tube. Dr Sarasan lamented that horticulturalists in Mauritius focused on orchid growing for the export market, rather than on protecting the rare or under-threat plants and species.









The insubstantial frame that was set up around the twelve-metre tree spoke to me of a confluence of pathos and hope, visibility and invisibility, a contrast to my exploration of a seemingly empty plot of land. The tree found itself framed within the Botanical Garden. This framing occurs within the wider colonial system of ordering and classification, which was designed for exploitation and profit. The framing is a mode of collecting and categorisation, whereby species, people, and places can find themselves in a 'system' of hierarchies, in which they become split from the context, cosmologies, or relationships in which they previously existed. In the new system they are made strange, curious, or of profitable value. One system becomes visible, as other relations and realities disappear.

Carl Linnaeus' System Naturae, which was published in 1735, led to the extraction of specimens from their relations with each other, and from their places in other peoples' histories, economies, social and symbolic systems. In the new scientific and analytical writing and image making, landscape is presented as uninhabited, unpossessed, unhistoricised, and often unoccupied. For Pratt, "[t]he activity of describing geography and identifying flora and fauna structures as an asocial narrative in which the human presence, European or African, is absolutely marginal, though it was, of course, a constant and essential aspect of the travelling itself. In the writing,



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people seem to disappear from the garden as Adam approaches – which, of course, is what he can walk around as he pleases and name things after himself and his friends back home" (2008, 50). For Lévi-Strauss, "[e]xploration is not so much a covering of surface distance as a study in depth: a fleeting episode, a fragment of landscape or a remark overhear may provide the only means of understanding and interpreting areas which would otherwise remain barren of meaning" (2011, 47-8). The writing of Alexander von Humboldt reveals how places are viewed in terms of their prospect to produce a marketable surplus, he writes: "If then some pages of my book are snatched from oblivion, the inhabitant of the banks of the Oroonoko will behold with ecstasy, that populous cities enriched by commerce, and fertile fields cultivated by the hands of freemen, adorn those very spots, where, at the time of my travels, I found only impenetrable forests, and inundated lands" (Pratt in Robertson 2001, 143). But as Arendt points out, there is no such thing as an empty landscape: "[n]o human life, not even the life of the hermit in nature's wilderness, is possible without a world which directly or indirectly testifies to the presence of other human beings" (1958, 22).

I began to explore the herbarium with the students by thinking through texts and images and by making herbaria with waste materials and foodstuff. In this method, specimen sheets are





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stacked in groups by the species to which they belong and placed into a large lightweight folder that is labelled on the bottom edge. Groups of species folders are then placed together into larger, heavier folders by genus. The genus folders are then sorted by taxonomic family according to the standard system selected for use by the herbarium and placed into pigeonholes in herbarium cabinets. The practice of drying and pressing specimens has been in use in Western culture for over four hundred years. The term herbarium was first used as a collection of dried medicinal plants catalogued within a bound book in the sixteenth century, when Luca Ghini is credited to be the first person to have pressed, preserved under pressure and then bound specimens of plants within a book. While most of the early herbaria were prepared with sheets bound into books, Linnaeus came up with the idea of mounting them on loose sheets that allowed their easy re-ordering within cabinets. Linnaeus's legacy is a classification system for the natural world to standardise the naming of species and order them according to their characteristics and relationships with one another. Although his own research trips were limited to Sweden, his collaborators were encouraged to make trips around the world to collect new species. With their assistance Linnaeus collected 5,900 plants, most of which are now maintained at the Linnaean Society in London.

Herbaria are the visual expression of this possession: through the modificatory processes of drying and pressing, they become visual representations of plants. In the herbarium, plants are separated from their environmental, historical, and cultural contexts and renamed in Latinised scientific terms. Leading scientific institutions in Britain, such as the Royal Botanic Gardens at Kew and the British Museum, relied on a global network of

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colonial collectors. Botanical gardens played an important role in the political economy of the British Empire, with Kew Gardens holding a central role as receptor of seeds, cuttings and dried flowers from the colonies. Botanical gardens were established in Europe to cultivate the specimens that were brought back from explorations, with a view to marketable profit.

At the time of the project, I was particularly struck by the ecological consequences of the MV Wakashio oil spill near the marine park of Blue Bay in Mauritius, the island of my father's birth, and the construction of homemade ballasts by local people using straw and hair to soak up the oil in the water. Through the process of thinking and making with the students and academics at Ca' Foscari, and my connections with ecological disasters occurring at that moment in the place of my father's birth, I began to create *Waste Archipelago*, 2021, a new body of photographic, installation, and event-based work that explores waste through the prism of the archipelago, and the interconnectedness of how we conceive of, create, and manage waste through our relationships with objects and our bodies.

Works include: Oil Spill Islands, eight photographs of islands made from documentary images of recent oil spills in the world's waters, and then preserved in sea salt; Food Waste, six photographic collages as headpieces made of images related to food waste, on wooden stands, and c-type photographic prints of them – the headpieces are worn during processional walks through Venice; Plates, inverted photographs of waste food based on artificial islands; Waste Matters, two c-type photographic collages of an island of food at the top and its corresponding waste inverted and underneath, also installed as large banners on the balcony of Ca' Foscari University overlooking the Grand Canal; Herbarium, six collages made from the waste paper and card cut outs of the process of making the other work; and An Anecdoted Topography of Waste, a cotton table cloth of sewn outlines of culinary objects, food waste and oil spills as a key to the whole exhibition, that is a way of thinking of what we ultimately leave behind after human production and consumption (figs 14-19).

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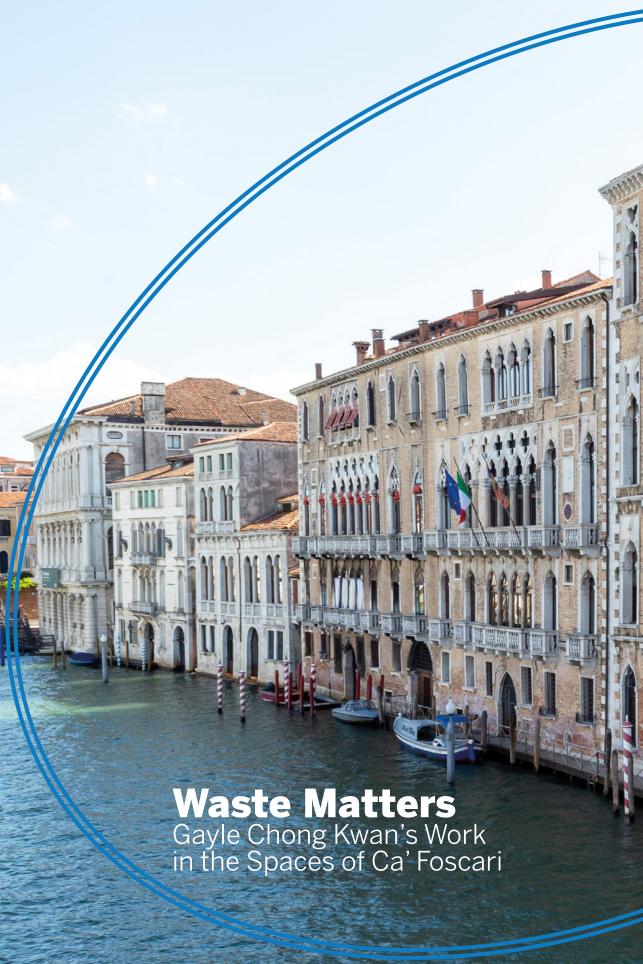








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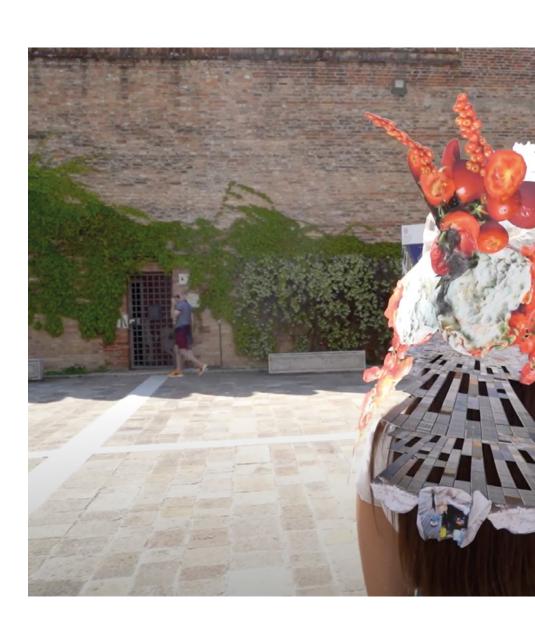




















Food Waste for Change: A Journey into the Garbage

Silvia Ballarin

Waste materials of any kind and food leftovers, in particular, have been part of artistic production since the beginning of the last century. This unusual matter has changed a lot over time, taking on many different meanings, relevance, and shapes. The artists of the avant-gardes of the early twentieth century were the first to use raw materials, such as scrap paper, ropes, and junk. They assigned them the same importance and aesthetic value as any other traditional and more precious material. Let us recall, for example, the well-known Pablo Picasso's *Guitar* made in 1912, realised in paperboard, paper, thread, string, twine, and coated wire.

From the sixties, waste material in artworks characterised movements such as Pop Art, Nouveau Realism, New Dada, Fluxus, and Visual Poetry. It became an ironic medium to criticise society and consumerism. For instance, the artist and sculptor Edoardo Paolozzi – pioneer of pop art and member of the Independent Group – used paper leftovers to attack artistic elitism and incite a reflection about the relationship between art and mass production.

In the eighties and nineties, the use of garbage in artworks gave birth to the so-called Trash Art. As a consequence of the historization of the garbage problem, artists revaluated the role of waste and made it the subject of a new aesthetic. Moreover, during these two decades, mixing food and art became a pretext to bring attention to topics of utmost importance: e.g. gender and identity issues, feminism, body self-awareness in connection to AIDS. Also, artists started to interact with the public through social relations as part of the artworks defined as 'relational aesthetics'. One for all Felix-Gonzales Torres with the series *Candy Spills*.

From the very beginning, waste in art has represented the spirit of change of many eras and societies. During the last century, garbage and waste in art have become a language that turned trash into visual culture. Trash has represented a choice for artists, a new way to make art through new materials. They recycled old objects to create something new, leaving behind what has been before and embracing the future with a certain optimism. Although trash has never been useless, when we throw something

¹ Cf. Poli, F. (1997). Minimalismo, Arte Povera, Arte Concettuale. Roma-Bari: Laterza.

² Vergine, L. (2006). *Quando i rifiuti diventano arte, TRASH rubbish mongo.* Milano: Skira editore.

³ Bourriaud, N. (2010). Estetica relazionale. Milano: Postmedia.

⁴ Vergine 2006.

⁵ Levin, K. (2011). "Talking Trash". Artnews, June.

away, we are settling its dissolution. At this moment, everything around us can be seen as potential waste or considered future trash. At the same time, waste is strictly related to life itself. It is the symbol of human productive power, for better or worse. Therefore, in the art world, the charm of creating pieces of art using waste materials dates back to the past. What is changed then? Now we are witnessing a radical change of attitude. At this point, the signs of the unsustainable model of development are crystal clear everywhere. We live in a new geological era called Anthropocene, characterised by the huge impact of human beings on our planet. In 2015, after decades of scientific and political debate on sustainable development, the United Nations General Assembly stipulated and adopted the 2030 Agenda for Sustainable Development, which involves food in relation to agriculture, hunger, food security, waste, and labour market.

Although culture and art were not formally included in the sustainable development process, artists and the art world showed that they are a fully-fledged part of the change, not only as of the aesthetic crowning of scientific discourse but also as an active agent of the change, offering a sustainable alternative of development.⁸

We saw it in the past months with the artist Gayle Chong Kwan, who drove us on an intimate and sensitive journey through trash and food waste, starting from the way we define it up to mapping and taking pictures of it in our homes and neighbourhoods. This exchange of personal food waste-related experiences has been led by the artist necessarily by computer through video calls and online platforms as this period requires. Nevertheless, it is not far from the participatory experiences and ideas characterising relational art and conceptual art. She led us to take care of the food waste we produced as a precious and rare species to safeguard. Waste became a point of view to consider what surrounds us.

⁶ Castagna, A. (2013). Tutto è monnezza. La mia dipendenza dai rifiuti. Bari: Liberaria Editrice.

⁷ Crutzen, P.J. (2005). Benvenuti nell'Antropocene. Milano: Mondadori.

⁸ https://sdgs.un.org/goals.

Food Fashion

Silvia Bertolin, Giulia Piovesan, Rubens Tola

It is a sunny Saturday afternoon, you go out with your friends for a shopping day, searching for the best deal. You walk inside a clothes shop looking around to see if something catches your eyes: there is an entire section dedicated to the "BUY 3, GET 1 FOR FREE" deal. But have you ever thought, looking at the tags, what is the real cost behind it?

Every year, the fashion industry has a high cost of energy, raw material, and CO_2 emissions. Only in 2015, it consumed at least 98 million tons of energy and was responsible for 2% of CO_2 emissions (over one million tons). The Ellen MacArthur Foundation predicted this consumption to reach, in 2050, 300 million tons of energy and 26% of CO_2 emissions produced by the fashion industry. Also, between 2015 and 2050, it is expected that 22 million tons of microplastics will end up in the environment.

Many companies took action in becoming more sustainable. To quote the Brundtland report: sustainable development is "the one that allows the present generation to satisfy their needs without compromise the possibilities of the future generations to satisfy theirs".

We thought that repurposing the tons of food waste we are making every day could be an effective strategy for the fashion industry to become more sustainable: we searched online to check if our economic system had already developed this idea.

We found three companies that produce their fabrics by repurposing the food waste we made: Ananas Anam¹ is the brand that has patented Piñatex, the eco-leather made of pineapples leaves fibres according to an ancient Filipino tradition; during a job consultancy in the Philippines, Mrs Carmen Hijosa, designer and entrepreneur, experienced in the fashion field, notes that locals use pineapple leaves to make the fabric for their traditional costumes. After five years of study, the organic product entered the fashion industry. Ananas Anam is now a certified B corps, a title for for-profit companies that use the power of business to build a more inclusive and sustainable economy. This company, based in London, has already received numerous awards such as the Award for Material Innovation from the Arts Foundation UK in 2016 and the Innovation Award from Peta (People for the Ethical Treatment of Animals); in 2015, they also obtained the Peta's Vegan Fashion Label.

Circular Systems² is a materials science company focused on creating a net-positive impact on our environment, society, and

https://www.ananas-anam.com.

² https://circularsystems.com/agraloop/.

economy through innovation. Their circular and regenerative technologies provide systemic solutions for transforming waste into valuable fabrics for the fashion industry. Agraloop BioFibre is the name of a specific natural fibre obtained from food crop waste: it transforms low-value agricultural waste into high-value new fashion products. It processes a range of inputs, including oilseed hemp, oilseed flax, wheat, rice, corn, pineapple leaves, and banana trunks, and much more. It also produces a range of byproducts, including bio-energy to power the local community and organic soil amendments to go back to the farm to support the fertility cycle. So, Circular Systems looks at these crop residues as valuable resources rather than just food waste, thus, turning the problem into a solution. Orange Fiber³ is an Italian brand that repurposes citrus by-products to create new fabrics made of a silklike cellulose yarn to supply the entire fashion industry. Only in Italy more than 700,000 tons of citrus waste are produced every year and, until now, no one had developed an alternative to disposal. Orange Fiber identified this tremendous opportunity of industrial ecology and contributed to effectively reduce waste and pollution by transforming citrus juice by-products into a new and sustainable matter. This brand won several prizes: the ITMA Future Materials Award in 2015, H&M's Global Change Award, and the Italian COTEC for technological innovation.

Other companies must integrate sustainable systems into their projects without looking at mere profit only. Having said that, consumers should also be conscious about the environmental impact of their purchases: to change the economic system, companies must guarantee transparency by keeping their consumers informed about the environmental impact of their products through the price tag.

In our digital era, we could also use the power of social networks to make consumers more conscious about the products they purchase: we need a new type of influencers who can spread the powerful message of sustainability through their posts and their speeches not only to our generation but to the future ones too; for example, Venetia La Manna⁴ uses her profiles to spread the message of slow fashion, encouraging people to buy less and to rediscover, repair, and reuse old clothes to keep them as long as possible.

In conclusion, because the *produce-use-throw away system* is making our planet die, all the stakeholders in the fashion field too are called to cooperate towards a sustainable and circular economy to lower the environmental impact of this industry.

³ http://orangefiber.it.

⁴ https://www.instagram.com/venetialamanna/.

That Inspiration that Comes from Art

A Reflection on Food Waste and Dirt Through the Art of Gayle Chong Kwan and Klaus Pichler

Sofia Borroni

During a rainy meeting in 2020 at Biennale Danza of Venice, the Italian performer Silvia Gribaudi extemporised the following words (I will try to report them by memory): "I suppose art is that quality that everyone can have, not necessarily an artist, that makes a route change possible. A quality that encourages to make an alternative road that nobody had ever thought".

The quote got darker when the topic of food-wasting plus the wider and indefinite topic of waste – food, objects, or whatever the experience brings – reveals as something that takes part in our lives like a dark shadow. As producers of our own waste/trash, natural ones, or created by the overabundance of things we have, we are completely disregarded. To quote Silvia Gribaudi: "is art creating a route change capable of giving a shape to this shadow?". The answer is subjective because the wasting problem has a wide range since it is first a problem of all individuals.

But art is certainly one of the protagonists making a move towards this purpose: a world of images that spells and makes visible this shadow through figuration. The works the project *One Third* (2012), collected by the Austrian photographer Klaus Pichler, show this unknown and rejected reality with incredible sensibility and refinement. The collection describes the connection between individual wastage of food and globalised food production. Rotting food arranged into elaborate still life compositions portrays an abstract picture of the food wastage while the accompanying texts take a more in-depth look at the roots of this issue. The project title refers to scientific data showing that one-third of food worldwide goes to waste. Here the image reveals its impact power and transmission speed.

Something known as repulsive, like rotting food, is shown under a light of originality that opens plenty of doors of possibilities on how we can re-elaborate how food waste is perceived. But food and food waste also have a thick social implication: deliberately or not, looking at it just as something granted is dangerous and unproductive (also some kind of narrow-minded). The gentle, empathetic, maternal touch of Gayle Chong Kwan vibrates with strength, vision, and drama in works like *Paris Remain* (2008) and *Global Panorama* (2008)² where waste food makes up every

¹ Klaus Pichler, *One Third*. Vien, Anzenberger Gallery, 2013. The works are available on the artist's website platform: https://klauspichler.net/project/one-third/.

² The works are available on the artist's website platform: http://gaylechongkwan.com/works.

particle of the world built. With the words of the photography scholar Sergio Giusti on the occasion of Gayle Chong Kwan's solo exhibition *Sensorial Universe* at Galleria Uno + Uno (Milan) in 2010, "Food is definitely sustenance but it's also a collector of belonging and building block for social community. And yet, on the other side, it may also be curiosity for the exotic which is always an attempt appropriation and – in the worst cases – a touristic almost neocolonial devouring".³

Once the artist narrows his gaze on it, the topic assumes many shades like the colourful light that splits from a prism. We understand that waste can tell us something about our society, the city we live in, and the kind of life we have. Something that at a careless look appears so invisible and ignored, but that indeed is overwhelming. Gayle Chong Kwan's project *Les Preciouses* (2008) captures these 'invisible' elements lost on streets. Each of these photographs – taken from a worm eye angle on the crowded street of Paris – focuses on a small piece of discarded food such as an orange peel, a shrivelled peel, a banana skin. The photographs could show foods while trashed, but I find her genius deep and earnest in realising the potential of the 'little invisible world' composed by these objects.

Again, through the project *Dust* (2014), Klaus Pichler departs from a culture that has always led us to understand it in a specific way. Colourful wires, balls of dust, other objects hard to identify were collected from different contexts and used as fingerprints that show us the identity of those contexts: an army shop, a bed articles shop, a pet shop, a fine art photo gallery etc. "Dust, we believe", the writer Josef Haslinger says in the presentation of the catalogue of Pichler's project, "does not agree with us, because it conceals everything we create. Dust is the devil's trap, revealed only once it has caught its prey. Haven't we been forever treading all evil into the dust? Was the snake not cursed to grovel in the dust? Klaus Pichler's photographs have shaken off the demons. They urge us to look more closely next time we sweep dust and grime onto a pan. We always used to call it dirt, blind to this whole universe".5 The inspiration that moved him to mould and agglomerate the dust could not be less than inspiring itself to us.

But what does it inspires what? When in front of an image, don't we often ask ourselves if we can see what the creator saw and be moved by the same inspiration? Art, and perhaps more specifically figurative art, could become a wind that opens the curtain on the scene of much awareness. For us, it works like an input, an inspiration that guides us to desire to be present, earnest. It may have the quality to inspire an individual change of route.

³ Giusti, S. (2010). *Gayle Chong Kwang 'Sensorial Universe'*. Milan: Galleria Uno + Uno.

⁴ Works are available on the artist's website platform: https://klauspichler.net/project/dust/.

⁵ Klaus Pichler, Josef Haslinger, *DUST*. Wien, Anzenberger Edition, 2015.

Art and Sustainability

Anna Bullo

The universe of art well integrates into the increasingly widespread concept of environmental sustainability. One should only think of the title of the third edition of the Sustainable Development Festival, *Let's put our hands on our future*, recently organised by the Italian Alliance for Sustainable Development (ASviS). This event aimed to set the conditions to allow Italy to make *2030 Agenda for Sustainable Development* – signed by 193 nations in 2015 – feasible to achieve its 17 sustainable development goals.

Ca' Foscari University of Venice has been developing the theme 'Art and Sustainability' for years through projects that promote the link between sustainability and artistic context, both of which are inherently linked to the city of Venice and to some relevant research sectors of Ca' Foscari itself.

Art and science are a fundamental combination for developing a sustainable world; one should only think of the innovative proposal of a group of Canadian scholars from the University of Montreal, who have used art as an effective means to achieve sustainable development. Art arouses sensations, emotions, and feelings, so it is undoubtedly the most effective tool to increase our awareness of the planet, our planet, the one that allows us to live. Given its connotations, art can be evaluated as the most appropriate solution to ignite the will and commitment to living in harmony with nature. One should understand art in all its multiform aspects, ranging from major artistic manifestations (from poetry to painting, from music to dance etc.) to simpler or smaller individual contributions across all aspects of daily life. Passions move everything, and, in the case of art, they can stimulate the creative and innovative qualities of individuals in everyday life, work, social relationships, school, and the domestic context.

Sharing these qualities not only would allow humans to join forces but also to deeply integrate into the planet's natural environment, of which they are an essential part. In the distant past, in the Mesolithic and Palaeolithic, where there was little knowledge and very few 'technologies' available, individuals practiced the art of survival, namely the one that allowed them to continue to live and evolve until to what we are today. The art of survival was passed on through fables, mythological stories, tribal music and dances, songs, and fantastic poems, i.e. all artistic manifestations rich in meanings, reflections, and indirect teachings, aimed at instinctively developing defence processes against ferocious animals and possible predators of all kinds, against the unknowns and dangers of life as well as the risks of natural disasters.

Similarly, sustainable development in all its areas should evolve into a mechanism of instinctive self-defence for modern men. It also acts as a stimulus to carry out the most suitable actions ensuring the survival of future generations. Science and technology cannot in any way be alien to, or separate from, the complex and incredible characteristics of the human personality.

I will now expose the reasons for the utility of humanistic disciplines and the history of art in this context.

The study of the iconographic elements of nineteenth-century landscape paintings provides us with the knowledge and sensitivity to educate our eyes and sight to the work of arts. Art historians need this sensitivity to reflect on the environmental and landscape changes that affected the territory depicted by artists of the past. The works on show in the international Biennali of Art and Architecture offer myriads of interesting solicitations and stimuli related to climate change, waste, and mass consumption regardless of the individual artistic instances. These works also feature very current and interrelated emergencies such as environment, climate, and migration.

When art historians analyse landscapes, environment, archaeological pre-existences as widespread museums (i.e. openair museums), they often face, as it happened to me, issues that seem far from the artistic discipline (i.e. illegal actions, degradation, garbage, land and labour exploitation, and the isolation of the citizen in the territory).

The history of art is useful in detecting the aspects of contemporary times and acts as a mirror in reflecting the ethnocultural and consumerist nature of our past. Thanks to their sensitivity, artists have often anticipated and proposed themes and urgencies that have become central in the contemporary debate. Art, in all its possible manifestations, can save us.

Between the end of the twentieth century and these first twenty years of the new millennium, a profound reflection has increasingly developed on the relationship – and the relationships – that human beings have with the environmental context, on the consumption of resources, and the impact of our species on other living species and the environment. This growing awareness of natural and man-made dynamics that we cause to the Earth and the consequent crucial responsibilities that come with it, as well as disastrous consequences, have profoundly changed, and still change, our culture and existence. In the last four decades, even the common lexicon has been affected by environmental issues. The Brundtland Report defines "sustainable development" as a development "that satisfies all the needs of the present without compromising the possibility for future generations to satisfy their own needs". Thinking about sustainability as an issue related to the economy poses an evident problematic aspect of the "sustainable development" of the Brundtland Report, which solely concerns the economic and financial dimensions. We are simply thinking

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about the above-mentioned 'development' above all intended as economic growth. But not only that, since sustainability also means replicating nature and its dynamics – hence the concept 'art can save us'. Art can find a way and succeed where other disciplines fail. We find it hard to understand, define, and describe the complexity of our planet without using an artistic attitude and approach. Art has always acted as a philosophy of contemporaneity over time and has offered a tool to investigate the past, the present, and the future. Men can combine concepts such as art, play, passions, visions, also demonstrating qualities such as collaboration, problem-solving, and the potential of authorship in fruition, the advantages of sharing, the strength of sharing for the achievement of common goals.

I will now report a series of examples of artistic manifestations of environmental sustainability: The energy of the wind, the work of Elena Paroucheva, a well-rounded artist, painter, illustrator, and author of art installations and urban planning. She became famous for the creative use of electricity applied to different forms of art: it is from this lighting that the 'wind sculptures' and 'wind art' are born, which are often monumental projects that transform structures and objects related to the production and transmission of electricity from wind energy in works of art. Among her works, the best known by the public are the ones that combine forms of energy production or transmission structures (such as pylons) with human figures. The project is called *Electric* art and was born back in 1999 as a creative project focused on installing works created with energy production sources. The goal is to investigate sustainable art forms through sustainable inductive materials capable of integrating landscape care (urban and natural) with agricultural and industrial product needs. In preparation for the 2014 Winter Olympics in Sochi, Russia, Paroucheva created a monumental figure of a skier illuminated at night by the white, red, and blue colours of the Russian flag. Her imposing electric sculpture, whose structure resembles that of the pylons, transmitted and still transmits energy to the nearby towns of Alder and Krasnaya Polina. Another relevant work is Garbage Patch State also called Wasteland. This project, created by the brilliant Italian architect and artist Maria Cristina Finucci. consists of a federal state featuring five oceanic islands formed by the accumulation of waste carried by currents, such as plastic bottles, bags etc. These 30-meter-deep islands sail the oceans. displaced, and modified by the streams that generated them. Through her artwork, Finucci founded a nation that shows the devastating consequences of marine pollution as a testimony of the actual environmental catastrophe. According to her, a work of art born with collateral events and installations is also a manifesto to condemn the environmental crimes perpetrated by human beings. The last example, Bigger than the plate, is an exhibition that has been installed inside the Victoria & Albert Museum in

London. The first printed cards were made of powdered sugar. These cards aimed to show that sustainability is making incredible strides today. Prince Albert, the visionary founder of the museum, would have undoubtedly loved it. The exhibition consisted of four areas dedicated to different topics: the 'compost' area, dedicated to the presentation of recycling projects; the 'farming' area, which collected all the projects dedicated to the recovery of abandoned areas: the 'trading' area to illustrate forms of fair market and present proper forms of communication to the consumer; the 'eating' area that combined the skills of chefs and artists for the creation of sustainable works of art. The exhibition invites the viewer to try and overcome the idea of final meal to understand the nature of the food behind each product. This different perspective allows individuals to have a clearer understanding of some critical factors affecting humanity, including: limited availability of food; poor eating habits; an excessively impactful production chain; abuse in the production of waste; and the lack of attention to the potential of recycling.

Conclusions

As for my personal experience, I believe that the awareness of food waste and its reuse are themes that can perfectly match art and cooking. What better place than the stove to understand how food, considered waste, can give life to incredible dishes? Several chefs have long been experimenting with old remedies and ancient recipes of the past, where almost no food went wasted. In ancient times, vegetables, fruit, meat, and fish were consumed almost in full, giving light to dishes, or soups, with leftovers or food scraps. But not only that, peels and rinds were, for example, used to produce cosmetics and perfumes, and the same is in the case of leftover and bones. So, given this period, why don't we take a step back and recover that ancient knowledge that for centuries has allowed men to live in dignity? Several restaurants offer 0 km food, thus proposing meals from traditional recipe books with local dishes and meals, and they exploit all parts of the food product, discarding only a few of it. The latter is a common practice among those farmers who produce the meat at a family level, aiming to use all parts of the animal. Art reflects in the art of cooking, where the taste and the dish are a work of flavours. We live in a society where waste is induced – not only in food but also in clothing. Against this backdrop, art should find its space of denunciation, sometimes raw and pure, on the reality of waste. In my opinion, we also need to be educated on food purchase habits. We should avoid foods that are too packaged and wrapped, opting for healthy and natural foods; we should support supply chains that do not exploit soil and labour, thus buying local products with lower transport impact. Art has always wanted to sensitise the individual

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by inducing messages and emotions. Now we face a real need for awareness. The need for proper waste disposal is an aspect that in some countries still seems to be not recognised, and so the need to use reusable containers that still is too far away in the current tight times of this inevitable emergency. I believe that food recycling is a fruitful form of art, not only from an anti-waste perspective but also to foster a conscious recovery during this economic crisis caused by the pandemic. Creating collective exhibitions on the theme of food waste, involving chefs, farmers, and peasants, as well as archaeologists and anthropologists, could be a convenient strategy where the experiences, knowledge, and perceptions of each professional can offer a fundamental message linking the use, consumption, production, and purchase of food.



The Second Soul of Waste

Marta Fogagnolo, Beatrice Iroha Wada

Global climate change is one of the most discussed topics to date. This subject covers a wide range of issues in terms of economic and social standpoints. The project *Waste Matters* – by artist Gayle Chong Kwan and Ca' Foscari University – provided us with a new and complete perspective on this matter.

We started by reading a statement by the artist in which she explains her use of sensory, liminal, and shared registers to ask questions about how to see and model the world, all the while connecting politics and poetics. We decided to focus our research on the artistic field and investigate how subjects are portrayed across the current artistic environment and how set-aside, broken and, seemly unusable objects act as means to explore new concepts.

Later, we focused principally on Jean Shin, a New York-based south Korean artist, who, we believe, shares some similarities with Gayle in terms of artistic values.

Her main works are monumental installations, products of the permutation of common objects into expressions of identity and community. The materials she uses have memories of the human body (like soles), or bear the marks of particular events (like broken umbrellas), and can express the absence of something as well (like a lone sock left behind in the clothes dryer). After she takes hold of these humble relics that still retain traces of their former life, she transforms them into a visually arresting explosion of form, texture, and colour.

Three projects drew our attention: *Pause, Worn Soles,* and *Sound Wave.*

In Pause (2020), a site-specific installation she realised under request by the Asian Art Museum, she recreates a Gonshi – the scholar's rocks of Chinese art – with cables and phones, inviting the public to reflect on how technology contributes to climate change. The artwork highlights our deep connection and reliance on technology and how often we overlook ethics when creating new technological devices.²

The installation wants to denounce our dependence on technology and provide a place where we can reflect on the toxicity of e-waste while finding ways to escape from this auto-induced daze from today's consumerism. In *Worn Soles* (2001), the artist separates the bodies of used shoes from their soles by arranging them neatly on

¹ Gayle Chong Kwan, on SINGULART: https://www.singulart.com/it/artista/gayle-chong-kwan-21#interview.

² Jean Shin, *Pose*, on Asian Art Museum: https://exhibitions.asianart.org/exhibitions/jean-shin-pause/.

the floor, recreating a symbolic and suggestive crew of people that only leave a faint trace behind. Every single sole is a memento of those who wore it, a mark that maps the owners' pasts. Sound Wave (2007), an oeuvre realised by melting 78 rpm records on a wooden armature and later sculpted to form a cascading wave, speaks of the constant waves in the technological field, that "render each successive generation of recordable media obsolete".

Although its beauty is mesmerising, it causes a sense of dread too: it is like being submerged by the frenetic changes of everyday life, with its chaotic vibes and not enough time to adjust to them before being overwhelmed by another one.

As briefly mentioned before, we have found that some points of the poetics of Jean Shin converge with those of Gayle Chong Kwan. Although one focuses more on the use of non-organic materials and mainly chooses to create installations, and the other privileges organic waste, uses photographs and installations, and the active participation of the visitors in her projects, they share similar ideas and goals. Their breathtaking artworks use the past to portray the present and outline a possible future, showing a clear – and often oppressive – picture of our reality (the waste of yesterday is our present, and our present is the launch base for our future, a window of what could keep happening if we do not learn from our errors and strive to change).

Waste is indeed a means through which they show the ups and downs of society, challenging the visitors to look around and do, instead of passively staring and waiting for someone to step up for them. These two artists, having a sharp eye on reality, a keen intellect, and a deep knowledge of our daily challenges, use a powerful way to give us a message about the importance of waste and how not dealing with it could do more harm than good.

This (un)seemly protagonist is an everyday constant: whatever we eat, drink, buy or do involves its presence (and contribute to creating even more of it).

After gaining this awareness, we ended up with a deeper desire and need to learn more about this topic, how it is perceived by public opinion and how it concerns us all. We asked ourselves what we could do to help the current situation, what, in our little personal cosmos, we should do to start to improve things. The answer was quite simple: start from the little things. It may not seem enough, but even a simple act like turning off the light when leaving a room can be of great importance.

All things considered, isn't the ocean made of single drops? After the end of this project, we can say with certainty that we will continue to acknowledge our community efforts, artistic and not, in expanding the public knowledge about waste, its uses, and impact on our environment while doing our share of work.

³ Worn Soles, 2001: http://www.jeanshin.com/worn_soles.htm (2020-12-31).

⁴ Sound Wave, 2007: http://www.jeanshin.com/soundwave.htm (2020-12-29).

Garbage In, Garbage Out?

Kristian Gandin

During the participation in the *Waste Matters* project, I had the opportunity to discover the artworks and the personality of the artist Gayle Chong Kwan and to approach a new, unknown concept of art: an art able to face ordinary matters such as food waste. As a result, my curiosity and attention have been attracted precisely by this topic: the power of contemporary art to become a symbolic stage where even the problem of food waste could be depicted to the public.

The deepening of this aspect led me to answer two main questions.

Firstly, I wondered whether broken and rubbished objects or leftovers and rejects – in one term, waste – could be art. According to Katrin Krottenthaler's essay, which refers to the artwork *Waves* of Beate Seckauer, the artist is the first one to decide if his work is art, he or she is the ultimate measure of what is to be defined as art.¹ Thus, Beate Seckauer herself says that "art is everything unique and new that is made only one time". Consequently, the practice of transforming waste into art is justified by the criterion of uniqueness, which gives to the object a symbolic aura that is untraceable inside a recycled but mass-produced product.

One should think about the purpose of this practice: in other words, in which way contemporary art can bring sustainability? Someone could reply that art is not helpful to confront pollution and food waste simply because it has been said that an artwork is unique and, therefore, all or most of the waste cannot be transformed into art. It is highly important to remember that art does not work with quantity, but with quality, and its role is primarily symbolic. As expressed in the enlightening article "From Waste to Art – The IWWG Art Gallery", artistic "activities do not dramatically reduce the amount of waste produced globally, but [...] they can be a channel of education towards a new 'waste mentality".2 From its symbolic dimension, art allows reflection, individual awareness, collective sensibility and finally promotes a concrete reaction to current issues. In this way, art inspired by food waste shows, through its contemplation, the road towards recycling and reducing.

¹ Krottenthaler K. (2017). "From Art to Waste and Back: Beate Seckauer and her Waves", in "Artists' Waste, Wasted Artists: Exhibition Catalogue", special student issue, *Journal of Extreme Anthropology*, 1(2), 93-4. https://doi.org/10.5617/jea.4887.

² Stegmann R.; van der Westhuyzen, C. (2014). "From Waste to Art – The IWWG Art Gallery". Waste Management, 34(5), 845-7. https://doi.org/10.1016/j.wasman.2014.03.001.

There are many examples of art concerning food waste to explain these topics. In particular, I chose three artworks that, in my opinion, share a similar modus operandi. The first one is Tropical Hungry, made by the Brazilian artist Narcelio Grud. He collected different types of scraps and rotten fruits and vegetables (tomatoes, peppers, pumpkins etc.) from markets and separated them by colour to use their pigments and create a mural. The result is a giant and dreadful wide-open mouth that has just insatiably fed on lots of food whose remains are on the ground. The second artwork is Arc de Triomphe – From the Waste of a Civilization by Markus Jeschaunig, 4 a work realised for the street gallery - Lendwirbel Festival 2012 in Graz, Austria. It consists of a triumphal arch-shaped structure made of metal grids and a wooden substructure and filled with 8.65 cubic meters – about 2.5 tonnes – of dry waste bread. It took the artist five weeks to collect the bread from bakeries, markets, and rubbish containers. Finally, the last artwork I would like to mention is the evocative Paris Remains, 5 a series of large-format photographic wraparound images realised by Gayle Chong Kwan, installed in ArtSway, Hampshire, and part of a touring project entitled *The Grand Tour*. The artist collected discarded food such as citrus and banana peels and other remains and created a miniature version of the city of Paris imagined as a ruin. In this so horrific sight, all the beauty gives way to a wasteland made of inert vegetables.

Making use of apparently worthless food waste, all three artists create artworks capable of public inspiration and reflection. Efficacy is allowed by the recurrent idea of transforming space by ironically glorifying consolidated symbols, bringing about mystification and overturning. *Tropical Hungry* can be seen as a parody of the well-known lips and tongue logo of the rock band The Rolling Stones, which, in some way, stands for our modernity; *Arc de Triomphe* refers to the famous Parisian monument, but celebrates the intrinsic wastefulness of consumer society; *Paris Remains* expresses the futility and fallacy of human taste that, once vanished, mutate even one of the loveliest cities into a pathetic desolation.

"Garbage in, garbage out" is generally said: will it always be true? At least not in art!

³ https://www.narceliogrud.com/portfolio/tropical-hungry/.

⁴ https://agencyinbiosphere.com/archives/project/arc-de-triomphe.

⁵ http://gaylechongkwan.com/works/paris-remains#0.

From the Food Supply Chain to the Sustainable Food System

Francesco Messina

The food supply chain (henceforth FSC) represents the process through which food is produced, reaches places of consumption, and, in the end, is disposed of. The FSC involves farmers, distributors, consumers, and other professionals contributing to satisfy the demand for food.

To reduce food, energetic and monetary waste alongside the chain, stricter controls, and accurate management represent a pivotal passage: these efforts would result in undebatable advantages. As sustained by Hamprecht et al. in their paper on the control of the FSC and its sustainability, a sustainable supply chain also helps improve productivity, thanks to the optimisation of production and distribution phases.¹

To strengthen and innovate the concept (and the praxis) of FSC, the Food and Agriculture Organization of the United Nations (FAO) provides a new, practical model to contextualise and understand how the FSC plays a central role in the achievement and compliance with the 17 Sustainable Development Goals 2030. To quote FAO's Sustainable Food Systems: Concept and Framework: a sustainable food system (SFS) "delivers food security and nutrition for all in such a way that the economic, social, and environmental bases to generate food security and nutrition for future generations are not compromised".²

The above means that:

- it is profitable throughout (economic sustainability);
- it has broad-based benefits for society (social sustainability);
- it has a positive or neutral impact on the natural environment (environmental sustainability).

Consequently, the whole food market (and, most of all, the stakeholders of this market) will benefit from a sustainable food system. In fact, in terms of economic impact, SFSs generate added value for five components: wages for workers, a return on assets (profits) to entrepreneurs and asset owners, tax revenues to the government, benefits to consumers, and impacts on the socio-cultural and natural environment. The paradigm of development propelled by SFSs trespasses the traditional domino-like vision of

¹ Hamprecht, J.; Corsten, D.; Noll, M.; Meier, E. (2005). "Controlling the Sustainability of Food Supply Chains". *Supply Chain Management: An International Journal*, 10(1), 7-10. https://doi.org/10.1108/13598540510578315.

² FAO's pamphlet on sustainable food systems: http://www.fao.org/3/ca2079en/CA2079EN.pdf.

FSC, taking into account the three dimensions involved (economic, social, and environmental): as a matter of fact, the adoption of an SFS model will eliminate the typical bijective relations of FSC (usually represented by linear graphs) in favour of a circular perspective. This change allows envisioning the process more broadly: considering the system holistically, the ties that connect different participants will be more evident and, therefore, open to improvements. As made clear by FAO, the sustainable food system should be conceived as a wheel (rather than the usual linear 'arrows') that globally intertwines all various stakeholders and subsystems. Indeed, the SFS considers all relevant causal variables of a problem and all social, environmental, and economic impacts of the solutions to achieve transformational systemic changes.

To conclude, a desirable outcome of the adoption of the SFS model would involve taking care of all the different steps and contributors to the food chain, promoting social and economic equality, and reducing all kinds of disadvantages (primarily, environmental pollution and waste disposal) to their minimum levels.

継ぎ: Golden Joinery

Matilda Nardoni

The tinkling of countless shards breaks the silence over shogun Ashikaga's court. Motionless in front of what remains of his favourite Chinese teapot, he observes the infinite fragments produced by the crash. Every attempt to recover the elegant functionality fails, as not even the industrious hands of Chinese artisans can give back to matter what time and chaos have thrown away. The teapot will not come back: delicacy, which was its strength, implied precariousness, which was its weakness. Now, infinite, worthless pieces explore the wooden floorboards.

Objects have within themselves the power of becoming witnesses, more than men are, of a beauty made of custom. They wear the essence of *Wabi-sabi*, the ancient Japanese philosophy that discovers the sense of a disruptive vitality in the aesthetic of usage, followed by many enchanting principles. Shibusa, intangible refinement; mono no aware, explosive pathos of matter; yugen, ineffable secret grace. It enshrines the idea of time as a spontaneous flow, continuous metamorphosis, impermanent creative action. And above all, the concept of *Ma*: the interval, the neutral zone, dense of possibilities.

The Japanese artisans collect all the sharp cutting fragments and rejoin them together using a specific natural lacquer: the saturated lines only follow the drawing traced by the *kire*, the cuts, on the ceramic canvas. They wait weeks over weeks for the teapot to be cohesive again, and then, as the breath of a magic spell, they blow golden dust on its surface. All of a sudden, a dream-like luminous landscape emerges, branching of a story: the *keshiki*. The joints glow with the accomplished transformation, and to Ashikaga it is even more precious.

This transformative art – flourished in the fifteenth century after the story of the shogun's teapot – passed down through generations with the name of *Kintsugi: kin* (gold) and *tsugi* (joinery). It consists of repairing ceramics that have fallen apart and ennobling the marks

¹ Cf. Koren, L. (1994). Wabi-Sabi: for Artist, Designers, Poets and Philosophers. Berkeley: Stone Bridge Press, 59.

² Cf. Kato, S. (1997). A History of Japanese Literature: From the Manyoshu to Modern Times. New York: Routledge, 76.

³ Sartwell, C. (2004). Six Names of Beauty. New York: Routledge, 112-13.

⁴ Tsubaki, A. (1971). "Zeami and the Transition of the Concept of Yugen: A Note on Japanese Aesthetics". *Journal of Aesthetics and Art Criticism*, 30(1), 55-7.

⁵ Fletcher, A. (2001). The Art of Looking Sideways. London: Phaidon, 370.

of the experienced accident with gold powder. It features the creation of a caring culture based on respect, gratitude, and almost awe for all the gifts of nature, where people experience a profound connection with tradition and the constellation of objects that inhabit everybody's microcosm. Each one so abundant in secret, intimate spirituality. A map that only attentive travellers can explore.

The art of Kintsugi transforms chips and cracks into a golden narrative. Where nothing is wasted, everything can be reinvented, gifting with a new life what time and chaos have corrupted: corruption that not even the shogun could have avoided, but that the artisan's hands knew how to make it blossom.

This is what comes to mind to the few craftsmen who, thanks to the Kintsugi technique, take care of pottery worn out by daily usage as well as those destroyed by the earthquake and tsunami that ran over Japan in 2011.⁷

This is what moves Tomomi Kamoshita as she collects by hand the polished colourful shards that the sea has brought ashore. She joins their wandering story in the same golden frame, and her *hashioki*, delicate Sakura-coloured chopstick holders, flourish and thrive in the *Gifts from the Wave* exhibition.⁸

To the same creative reimagination turns Sookyung Yee, the Korean artist who, having witnessed destruction and the thousand fragments produced by the anger of an unsatisfied ceramist, has found inspiration for her series of "translated vase". The soughtafter firmness and balance give way to an elegant and dynamic matter held together by Kintsugi. A matter that reinvents itself and shifts in front of the viewer's gaze.

And again, back to Wabi Sabi goes Kei Takemura's wit. Her shattered plates and the epicentre of violence: the place where she embroiders by hand transparent silk decorations, reconnecting the separated pieces with light, delicate fabric. She captures within the untouchable beauty of her "renovated vases" time, traditions, dedicated care. 10

The responsible hand of those who share this vision is capable of turning the perishing nature of raw materials into the overflowing colour of vitality.

Today, Japanese activists gather for this purpose to the cry of *Mottainai*, which can simply yet powerfully translate into the exclamation 'What a waste!'¹¹

⁶ Gopnik, B. (2009). "Golden Seams: The Japanese Art of Mending Ceramics' at Freer". *The Washington Post.*

⁷ https://asia.nikkei.com/NAR/Articles/A-Japanese-ceramic-repair-technique-teaches-us-to-embrace-our-scars.

⁸ https://eleanorbatemanportfolio.wordpress.com/2020/03/26/tomomi-kamoshita/.

⁹ At La Biennale di Venezia. 57^a esposizione internazionale d'arte. Viva arte viva, 2018.

¹⁰ Lee, E. (2011). "Kei Takemura and Yee Sookyung: Two Ways of Re-Thinking Asian tradition". *Arte e Critica*, 66.

¹¹ Maruko, E. (2014). "Affluence of the Heart: Wastfulness and the Search for Meaning in Millenial Japan". *The Journal of Asian Studies*, 73(1), 166-7.





Ugly Food, Making Visible What is Invisible

Sofia Pala

Vertumnus – one of the most famous works by Giuseppe Arcimboldo – became the mascot of Expo Milano 2015. It appears as a composition of fruits and vegetables of all four seasons, each painted with bright colours and reproduced in its best shape, either it is a cherry or a pumpkin. Although this allegorical representation seems bizarre, it is clear, instead, that the painter has chosen the appearance of the fruit and vegetable represented. From this point of view, there is an affinity between this work and the Oranges and Apples of Cezanne. Paul Cézanne used to paint the same subject several times until he reached the desired perfection; his goal was to reach a formal synthesis and transform the objects into essential forms.

Even there, shapes are smooth, and colours are perfect. Both works show perfect vegetables and fruits: peaches are all equal, apples have the same size, every fruit is shiny and without any sign of deterioration or imperfection. One could use these works at a supermarket chain with the sign 'first choice' vegetables. It is clear that, in such a store, the goal is to capture the gaze of potential buyers by reproducing the perfect picture that each of us has of a pear, a cherry, or a courgette. The hidden part of the iceberg is that pears and apples do not ever look the same, and probably certain products have been chosen at the expense of the others that were discarded. How did you get skin and colours like that? Who picked it up? How was it transported? In paper or plastic wrappers? What treatments has it undergone? And, finally, what happens to the fruit left on the tree that falls because it does not correspond to the parameters? What about the one that is not being sold?

That aesthetics criterion of selection is confirmed even today in the purchasing choices of many consumers. As recalled by Beth Vallen, Associate Professor of Marketing and Business Law at the Villanova University, we eat with our eyes. According to a study conducted by the University of Edinburgh, as many as one-third of the fruit and vegetables produced in Europe do not meet the requirements of the BDO, therefore, it does not reach the shops, because it is out of gauge, or marked by atmospheric events, or

¹ Makes, F. (2011). Giuseppe Arcimboldo Vertumnus. Visby: Gotland University Press, 13

² Benedetti, M.T. (2011). Cezanne. Milano: Skira, 46.

³ Block, L.; Keller, P.; Vallen, B.; Williamnson, S.; Birau, M.; Grinstein, A.; Haws, K.; La-Barge, M.; Lamberton, C.; Moore, E.; Moscato, E.; Walker Reczek, R.; Tangari, A. (2016). "The Squander Sequence: Understanding Food Waste at Each Stage of the Consumer Decision Making Process". *Journal of Public Policy and Marketing*, 35(2), 292-304

rubbing with other fruits. But the selection, and therefore the waste, does not stop there. Consumers themselves tend not to trust deteriorated products, oranges with spots or apples with bashed skin. According to data, every year, the above-mentioned lack of trust causes consumers to produce waste equal to between 700 and 1,500 € per capita. If it is true that this is still a majority trend today, it is also true that in recent years another trend is being affirmed.

The iconic image could be the *Basket of Fruit* by Caravaggio. Beyond the undeniable value of this painting in the field of art, no one who wants to qualify itself as a first choice fruit&vegetable store would select it for advertising purposes as the apple has deteriorated, some leaves are dried, the grape is mashed. Beyond the symbolic meaning that the painter gave to this type of fruit as signs of time and corruptibility of nature, it becomes visible that the fruit is not all the same, the colours are not always bright, or the leaves green. This feature does not deny the fruit flavour or quality, although it does not meet the aesthetic parameters we are used to.

A different approach based on the valorisation of ugly food is becoming increasingly popular in Europe to reduce department costs and combat waste. Some examples are the operation Les fruits et légumes moches of Intermarché in France and Too good to waste by Lidl in Great Britain. Also in Italy, NaturaSì, in collaboration with Legambiente, has launched in its 500 stores the project Cosīpernatura, dedicated to imperfect fresh fruit and vegetable products, i.e. too large, too small, or having different shapes.

To effectively reduce waste, this change of mentality must involve even larger sections of the population. What was previously invisible is about to become visible as an added value and not a limit. After all, what looks bad does not necessarily mean it is not good, or has to become a waste, or does not matter.

To Save Us All

Massimo Panaro

In the contemporary world, the interest in the environment has gained more and more relevance during these last years. One could think about the awareness projects carried out by artists and associations over the past years on this topic. However, one should also note that, in the last couple of years, movements like Fridays For Future and Extinction Rebellion have achieved to spread the message 'to be keen on the protection of the environment far more widely than in the past'.

Environmental sustainability has become not only something for a small elite trying to achieve some small victories in this field in their free time, but we might venture to say that it is now part of the pop culture. Still, hard work is needed to stop ongoing and future environmental catastrophes, but we have started to take some steps forward. The purpose of this small text is to point out a few topics that can be useful for further reflections about the issue.

Strictly connected to environmental protection, there is the food waste problem. This issue does not simply cover the 'not to waste the food on your plate' concept, but it includes a much broader idea. First, there is a need to tackle the overconsumption of meat. Given the increased request for meat-based products, large areas serve to produce cattle feeding; using those areas to cultivate food intended for human consumption would allow feeding millions of individuals.

Also related to this specific topic are the illegal fires set out by arsonists in the Amazonian forest. Most of them are ignited directly from the landowners eager to use new pieces of land to expand their cattle feeding production, backed by the Brazilian government that, during the ongoing presidency, has gradually reduced the national environmental protection over the course of the years. Raging wildfires in the Amazon are a direct consequence of the overconsumption of meat in the First World.

Moreover, one should not forget that even the food on sale goes wasted too when it is close to its expiration date. Big supermarkets keep throwing away large quantities of food, and dumpster-diving to look for still edible food is illegal.

This phenomenon is not new. It also appears in the novel *The Grapes of Wrath* by John Steinbeck (ch. 25), which explains how to keep the prices high, that unsold food was dumped or destroyed in all possible ways during the Great Depression. Almost a century has passed, but this phenomenon still exists. Although the European countries are trying to work on different levels to tackle it, it is still far from being stated as solved.

The last thing to point out is the ineffectiveness of individual actions to tackle the climate crisis in a long-term period. The 'every individual has to think about how to reduce its carbon footprint' and 'this is the key to solving the climate catastrophe' are the typical scapegoat arguments used by corporations to avoid responding to their actions.

For example, ENI – the Italian energy company working in oil extraction – is responsible for several environmental disasters in Africa. While no one sheds light on these harmful activities, the Company keeps spreading greenwashing advertisements on the media to show that they are doing their best to save the planet. These spots invite people to recycle more, take showers instead of baths, and turn off the tap while brushing their teeth to save the world together. How naive is this thought?

Hoping that everyone will change his mind and move towards an environmentally friendly behaviour appears utopian. Even if that miraculously happens, the damages produced by State's policies and big corporations would not disappear, condemning all of us to an inevitable environmental catastrophe. The current achievement towards which we all must aim is to force governments, corporations, and the whole society to re-think our current consumerist system and try to reform it.

To save us all.

Art for Whose Sake?

Gaia Pellegrino

"For art comes to you proposing frankly to give nothing but the highest quality to your moments as they pass, and simply for those moments' sake".

(Pater, W. Studies in the History of the Renaissance. London: MacMillan and Co., 1873, 213)

This quotation at the end of the book *Studies in the History of the Renaissance* clearly states Walter Pater's idea of the meaning and purpose of art. However, the search for the meaning of art is not exclusive to Aestheticism; on the contrary, it is a highly debated topic even nowadays. To date, there is no single answer to the question "what is the purpose of art?" (where art refers to all the forms it manifests itself), as it has changed numerous times according to the historical periods and the different needs of populations.

Focusing on Europe, since the very remote past, one could consider art in prehistoric times, whose purpose was mainly ritual and propitiatory. From this purely utilitarian function, one could move to art in the Medieval period, which in Europe mostly has religious subjects and was, therefore, used as a symbol of faith. However, as the centuries passed, the question became increasingly complex, and art went from being a means of religious representation to a means of social criticism, taking Charles Dickens as an example. In the nineteenth century, however, the Aesthetic movement completely overturned this view, believing that art should be an end itself and provide an escape from reality. This concept was, in turn, disproved during the twentieth century, where art, once again, spoke of social and political problems.

In essence, the issue is far from static. Nowadays, contemporary art has generally remained in line with the last century art: it is aware of its strength and aims to change reality. However, to do so, it needs to stimulate the viewer to find out more about the issues it covers. For this reason, the works tend to strike the viewers at first glance, fascinate them, and thus prompt them to seek an explanation. The artists express their inner selves and at the same time talk about the problems of our time, ranging from the atrocity of war, exploitation, abuse of power, lack of rights, consumerism, and environmental pollution also linked to the production and waste of food.

Countless artists are dealing with the problems of the Anthropocene, ¹ the current geological era. Notably, as concerns

pollution and spatial changes, three photographers (Edward Burtynsky, Jennifer Baichwal, and Nicholas de Pencier) organised an exhibition called *Anthropocene*, to raise awareness about the structural and climatic changes caused by human activity. The exhibit started on 28 September 2018, and it should tour globally for five years. It includes photographs, interactive films, and augmented reality installations, which fascinate the viewer with their distinctive shapes and changing colours of the images. These mark the contrast between the beautiful images and the actual damage done to the environment, totally in line with contemporary art standards.

So, amidst mountains of plastic bottles and lithium 'plantations', the viewer is left both fascinated and horrified. Although art has undoubtedly succeeded in achieving its aim in this era, it still requires a public willing to understand, internalise, and finally act to improve reality. Art brings problems to the surface, but good political action is needed to address and solve them.

Mussel Shells: Envelopes of Resources

Anna Piccolo

Hardly ever one thinks about the future of mussel shells while eating the contained mollusc. They are leftovers that not only fill our residual waste bin but represent a substantial issue at a global level. Accounting for 75% and 90% of the number of mussels produced, the disposal of shells requires massive resources. That is why they are often just cumulated on landfills. Such practices are problematic due to the excessive amount of waste piles that negatively impact the landscape and create pernicious smells arising from decomposition and decay processes. Moreover, they are of great danger to public health since bivalves can transmit several diseases. Moreover, developed the several diseases.

Alternative procedures to disposal are necessary to cope with the voluminous waste streams produced by the growing seafood industry. This phenomenon strongly affects New Zealand, for instance, where mussel shells constitute a relevant component of industrial waste, representing 90% of each factory's waste. The same as for Galicia, where around 25,000 tonnes of mussel shell

¹ Gigante, V.; Cinelli, P.; Righetti, M. C.; Sandroni, M.; Tognotti, L.; Seggiani, M.; Lazzeri, A. (2020). "Evaluation of Mussel Shells Powder as Reinforcement for PLA-Based Biocomposites". *IJMS*, 21(15), 5364. https://doi.org/10.3390/ijms21155364. / Hamester, M.R.R.; Balzer, P.S.; Becker, D. (2012). "Characterization of Calcium Carbonate Obtained from Oyster and Mussel Shells and Incorporation in Polypropylene". *Journal of Materials Research*, 15(2), 204-8. https://doi.org/10.1590/S1516-14392012005000014.

² Mohamed, M.; Yusup, S.; Maitra, S. (2012). "Decomposition Study of Calcium Carbonate in Cockle Shell". Journal of Engineering Science and Technology, 7(1), 1-10. / Morris, J. P.; Backeljau, T.; Chapelle, G. (2019). "Shells from Aquaculture: A Valuable Biomaterial, Not a Nuisance Waste Product". *Reviews in Aquaculture*; 11(1), 42-57. https://doi.org/10.1111/raq.12225. / Yao, Z.; Xia, M.; Li, H.; Chen, T.; Ye, Y.; Zheng, H. (2014). "Bivalve Shell: Not an Abundant Useless Waste but a Functional and Versatile Biomaterial". *Critical Reviews in Environmental Science and Technology*, 44(22), 2502-30. https://doi.org/10.1080/10643389.2013.829763. / Perea, A.; Kelly, T.; Hangun-Balkir, Y. (2016). "Utilization of Waste Seashells and Camelina Sativa Oil for Biodiesel Synthesis". *Green Chemistry Letters and Reviews*, 9(1), 27-32. https://doi.org/10.1080/17518253.2016.1142004.

³ Lertwattanaruk, P.; Makul, N.; Siripattarapravat, C. (2012). "Utilization of Ground Waste Seashells in Cement Mortars for Masonry and Plastering". *Journal of Environmental Management*, 111, 133-41. https://doi.org/10.1016/j.jenvman.2012.06.032.

⁴ Lertwattanaruk, Makul, Siripattarapravat 2012.

waste are generated every year;⁵ for Greece, reaching almost 12 tonnes daily;⁶ and for China, whose landfills are covered each year by about 10 million tonnes of shell waste.⁷ Overall, it is legitimate to define this as a global issue. Indeed, it has been estimated that over one million tonnes of mussel shell waste are generated worldwide by the canning industry.⁸

Mussel shells have been widely studied as biological sources of CaCO₂, covering ca. 95% of their composition. The vast range of application fields proposed for the mentioned food waste proves how it would better be seen as a resource, more than something to throw away. The main developing framework for mussel shells usage is in construction materials. Indeed, they can be either crushed to produce aggregates or calcined to produce limestone for cement mortar in concrete. In the former case, the obtained composite is not optimal for structural purposes but is a valuable material for coatings, as it is endowed with good insulating properties. 10 The results for the mortar production are satisfying as both good mechanical and thermal properties can be attained. The inclusion of mussel shells in the production of concrete is not only a way to reuse a voluminous waste stream, but it also contributes to lower the costs and environmental impact of the construction sector. 12 Indeed, the extraction of rocks and sand from quarries, rivers, beaches, and the seabed is expensive, energy-consuming, and implies damages to natural habitats and landscapes. 13 A

- 5 Martínez-García, C.; González-Fonteboa, B.; Carro-López, D.; Martínez-Abella, F. (2019). "Design and Properties of Cement Coating with Mussel Shell Fine Aggregate". Construction and Building Materials, 215, 494-507. / https://doi.org/10.1016/j.conbuildmat.2019.04.211 / Ez-zaki, H.; El Gharbi, B.; Diouri, A. (2018). "Development of Eco-Friendly Mortars Incorporating Glass and Shell Powders". Construction and Building Materials, 159, 198-204. https://doi.org/10.1016/j.conbuildmat.2017.10.125. / Seco-Reigosa, N.; Peña-Rodríguez, S.; Nóvoa-Muñoz, J. C.; Arias-Estévez, M.; Fernández-Sanjurjo, M. J.; Álvarez-Rodríguez, E.; Núñez-Delgado, A. Arsenic (2013). "Chromium and Mercury Removal Using Mussel Shell Ash or a Sludge/Ashes Waste Mixture". Environmental Science and Pollution Research, 20(4), 2670-8. https://doi.org/10.1007/s11356-012-1192-6.
- 6 Papadimitriou, C.A.; Krey, G.; Stamatis, N.; Kallianiotis, A. (2017). "The Use of Waste Mussel Shells for the Adsorption of Dyes and Heavy Metals: The Use of Waste Mussel Shells for the Adsorption". *Journal of Chemical Technology and Biotechnology*, 92(8), 1943-7. https://doi.org/10.1002/jctb.5247.
- 7 Yao et al. (2014).
- **8** Martínez-García, C.; González-Fonteboa, B.; Martínez-Abella, F.; Carro-López, D. (2017). "Performance of Mussel Shell as Aggregate in Plain Concrete". *Construction and Building Materials*, 139, 570-83. https://doi.org/10.1016/j.conbuildmat.2016.09.091.
- **9** Martínez-García et al. 2017. / Barnaby, C. (2004). *An Investigation into the Reuse of Organic Waste Produced by the New Zealand Mussel Industry.* Auckland University of Technology. / El Biriane, M.; Barbachi, M. (2021). "State-of-the-Art Review on Recycled Mussel Shell Waste in Concrete and Mortar". *Innovative Infrastructure Solutions*, 6(1), 29. https://doi.org/10.1007/s41062-020-00394-9.
- 10 Martínez-García et al. 2019.
- 11 Ez-zaki, El Gharbi, Diouri 2018; Lertwattanaruk, Makul, Siripattarapravat 2012.
- 12 Ballester, P.; Mármol, I.; Morales, J.; Sánchez, L. (2007). "Use of Limestone Obtained from Waste of the Mussel Cannery Industry for the Production of Mortars". *Cement and Concrete Research*, 37(4), 559-64. https://doi.org/10.1016/j.cemconres.2007.01.004.
- 13 Martínez-García et al. 2019.



sustainable solution envisages avoiding the need for such practices by using a readily retrievable resource: discarded mussel shells.

To close resource loops and implement a circular economy, the use of mussel shells in 3D printing is also attempted. The combination of finely powdered shells with sugar water provides a paste suitable for extrusion. The final material is similar to ceramic and is easily recyclable. Hence, failed prints or old objects can constitute new material input. Moreover, being composed of CaCO₃, they are ideal for plant vessels, being a suitable fertilizer. The combination of the control of the control of the cache in the control of the cache in the ca

In the context of material synthesis, the usage of mussel shells as fillers in polymeric composites has been studied. ¹⁶ The calcium carbonate extracted from these bivalves is particularly useful for improving the rigidity of the final material since a non-negligible part of it is in the form of aragonite. These acicular crystals form elongated particles that positively affect the mechanical properties of the bio-composite. ¹⁷

The nutritional properties of calcium carbonate have been exploited too by employing mussel shells in the production of calcium supplements, both for animals and for plants. Different

¹⁴ Sauerwein, M.; Doubrovski, E.L. (2018). "Local and Recyclable Materials for Additive Manufacturing: 3D Printing with Mussel Shells". *Materials Today Communications*, 15, 214-17. https://doi.org/10.1016/j.mtcomm.2018.02.028.

¹⁵ Sauerwein, Doubrovski 2018.

¹⁶ Gigante et al. 2020; Hamester, Balzer, Becker 2012; Yao et al. 2014.

¹⁷ Gigante et al. 2020.

companies have produced mussel shells-based products such as soil additives and conditioners, bird feeds, and supplements for horses. ¹⁸ Moreover, after calcination, the attained oxide can help to recover the buffering capacity of soils and act as an antibacterial agent. ¹⁹

Furthermore, substantial contribution in improving environmental issues can derive from the recycling of mussel shells. One example is the production of biodiesel: a biodegradable, non-toxic, and renewable fuel. The use of mussel shells as catalysts for its synthesis considerably lowers the costs, making it competitive in the global market.²⁰

Mussel shells have also been widely studied for their adsorption properties. One can take advantage of them in the flue gas cleaning process to remove acid gases,²¹ or in the removal of phosphates²² and heavy metals²³ from water bodies, or in the purification of textile effluents from dyes.²⁴

Finally, shells are used in Australia for restoring reefs, in the attempt to reconstitute the natural habitats destroyed by the human impact.²⁵

Concluding, it is palpable how mussel shells can be recycled in numerous ways so that not only is their disposal issue mitigated, but other environmental benefits are achieved. The development of studies on the field is a promising push towards eco-sustainable solutions to establish a circular economy.

¹⁸ Barnaby 2004.

¹⁹ Yao et al. 2014.

²⁰ Yao et al. 2014; Perea, Kelly, Hangun-Balkir 2016.

²¹ Yao et al 2014

²² Jones, M.I.; Wang, L.Y.; Abeynaike, A.; Patterson, D.A. (2011). "Utilisation of Waste Material for Environmental Applications: Calcination of Mussel Shells for Waste Water Treatment". *Advances in Applied Ceramics*, 110(5), 280-6. https://doi.org/10.1179/1743676111Y.0000000016.

²³ Papadimitriou, Krey, Stamatis, Kallianiotis 2017.

²⁴ El Biriane, M.; Barbachi, M. (2021). "State-of-the-Art Review on Recycled Mussel Shell Waste in Concrete and Mortar". *Innovative Infrastructure Solutions*, 6(1), 29. https://doi.org/10.1007/s41062-020-00394-9. / El Haddad, M.; Regti, A.; Laamari, M. R.; Slimani, R.; Mamouni, R.; Antri, S. E.; Lazar, S. Calcined Mussel Shells as a New and Eco-Friendly Biosorbent to Remove Textile Dyes from Aqueous Solutions. Journal of the Taiwan Institute of Chemical Engineers, 2014, 45 (2), 533–540. https://doi.org/10.1016/j.jtice.2013.05.002.

²⁵ Rebuilding Australia's Lost Shellfish Reefs. The Nature Conservacy, 2020. https://www.natureaustralia.org.au/what-we-do/our-priorities/oceans/ocean-stories/restoring-shellfish-reefs/.

The Art of Food Waste

Sara Sandrucci

Europe generates around 88 million tonnes of food waste annually.¹ Food waste is an important topic in these times where waste and environmental themes are faced more than ever before. Wasting food is not just an ethical issue. Wasting food plays a paramount role as the Earth will run out of limited natural resources if human beings do not act. Most people think that personal food waste is almost zero, but if we focus a little, we will notice that any little things can make the difference: peels and seeds of various vegetables and fruits, eggs' shells, cheese crusts, to quote a few. There are many ways to prevent and fight food waste; one of these is art. Many initiatives have been made over the past few years. To name one, the National Geographic photo contest #UglyFoodIsBeautiful, in which people were called to photograph rotten food and make it look beautiful or fascinating, instead of throwing it away, bringing crucial topics of everyday life. I have mentioned this contest as it demonstrates how everyone can make art on their own. Ca' Foscari University of Venice also proved it through the Waste Matters project led by the international artist Gayle Chong Kwan. This project provided us students with the opportunity to approach this topic differently and uniquely: the artist Gayle Chong Kwan gave us some insights from which we could take a cue, and through our creativity. we developed them into our little artworks, like poems, photographs. paper works, everything concerning the food waste theme. In this way, we realised how close we are to this subject. Everyday life can be so different if we look at it from another perspective, an environmental one. I think that art is a great instrument to raise awareness about social and global issues. It also provides an interesting way to stimulate personal creativity and combine it with social good. If everybody can make art, everybody can contribute to environmental well-being. I took a chance and got in the game. I wanted to challenge my creative skills for this social issue and make my point. Here is my little artwork, then: in this photograph I created, you can see a classic Italian plaid tablecloth. The special feature is the food: it is rotten, expired, simply food waste. I realised this 'still life' with food waste to express that the food is not waste, it is life. We, human beings, can give it another life through art. The flower, in the middle, is a metaphor for our Earth, our Pachamama. The flower fell and spilled its water all over the table, a metaphor for the limited natural resources that are slowly ending. We have to think of the consequences of our little daily actions. To conclude, I have

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the pleasure to give some bits of advice to avoid food wasting: to organise the grocery shopping in order not to buy extra food, to well preserve food products, to reuse some food waste creating delicious new recipes, to donate the extra food we will not consume and, last but not least, to make art!

Reflection and Consciousness

Maria Tiziana Sprenger

Philosophers and art critics have tried to define what an artwork is for centuries. In the Plato era, art was considered a mere reproduction of reality, an idea that continued throughout the following years; for example, during the Renaissance, Leon Battista Alberti defined an artwork as an imitation of the visible. However, the twentieth century produced many changes in the art field, and this definition was not appropriated anymore. In his essay *The Origin of the Work of Art*, Martin Heidegger marks the distinction between a piece of equipment (an everyday object) and an artwork. The first only reflects the use that we make of it, whereas the artwork has an inner meaning and, more importantly, it conveys multiple and infinite meanings. In short, to be considered an artwork, an object must speak to the people, make them think, and express an infinity of meanings.

One of the most significant innovations in twentieth-century art is using materials different from the traditional ones. In the beginning - as we can see, for example, in cubist collages or in Schwitters' works – artists employed fragments of broken objects, pieces of newspapers, cardboards, twine, used tickets. and other simple items to break the art categories and underline the opportunities to create art also with unnoble materials. 4 With the passage of years, the use of discarded objects acquired new meanings, as was well explained by the art exhibition Trash. Quando i rifiuti diventano arte⁵ realised in Trento in 1997 by Lea Vergine. The use of junk, waste, and rubbish in artworks to draw the public attention to new, essential, and complicated issues affecting our modern society increased; indeed, pollution, food waste, ecology, and eco-sustainability continued to be the focus of an increasing number of artists. The Brazilian artist Vik Muniz, ⁶ for example, became famous for the use of discarded materials as rubbish; by using the waste of the dump Jardim Granacho in Rio de Janeiro, he realised portraits of the catadores, the garbage collectors considered

¹ Platone, La Repubblica: http://www.ousia.it/content/Sezioni/Testi/PlatoneRepubblica.pdf.

² Alberti, *De Pictura*: http://www.ousia.it/SitoOusia/SitoOusia/TestiDiFilosofia/TestiPDF/Alberti/DePictura.pdf.

³ Heidegger, M. (2000). L'origine dell'opera d'arte. Milano: Marinotti.

⁴ De Vecchi, P.; Cerchiari E. (2019). *Arte nel tempo. Dal postimpressionismo al post-moderno*. Milano: Bompiani.

⁵ Vergine, L. (2006). Quando i rifiuti diventano arte. Trash, rubbish, mongo. Milano: Skira.

⁶ https://artmuseum.princeton.edu/collections/objects/133973.

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human waste. Instead, John Dahlsen, a member of the environment art movement, created installations with waste picked up on the Australian coast.

Another theme that some artists have tried to investigate is food waste. This theme not only includes the waste resulting from industrial processes but also the one produced every day when we eat or cook, such as packaging in plastic or paper, discarded leftovers, or rotten food. The problem is that frequently we are not aware of the quantity of food waste that we produce. For this reason, the contribution given by artists to this argument becomes fundamental to make us conscious about these issues.

During the realisation of the project *Waste Matters*, the international artist Gayle Chong Kwan has worked with us, students of Ca' Foscari University of Venice, to deeply investigate and analyse food waste. With a lot of different activities, we tried to understand, for example, what food waste is, how much food waste we produce every day, and how it changes and rots in one week. At the same time, we reflected on the possibility of reusing food waste in innovative ways; we found different recipes that use waste food and analysed a particular technique to create paper with it.

As we have seen at the beginning of this text, artwork must be full of infinite meanings that reach people; indeed, one of the most important goals of contemporary art is to stimulate reflection and consciousness about the issues of our society. In this context, Gayle Chong Kwan's artistic project provides an excellent example of the importance of art to make people aware of the deep problems related to food waste.

⁷ https://johndahlsen.com/environmental-installation-art-2003/catch/.





Some Awareness in the Artist's Pantry

Francesca Weber

Food and art have a relevant role in human life. They are the essential nutrients for people to stay alive and to feel alive. But what if there is more? What if we try to understand the strong relationship between these two factors? Since the very first mural paintings, food was always in art, as an ornament, as a symbol of prosperity and abundance, as a way of expressing the power of a social class.

Considering food not only as a need but also as a malleable material to be admired, offered, and perceived with all senses, has become a tendency connected to the approach we have to art.

The history of the depiction of food is ancient and constitutes a fundamental heritage for the knowledge of customs and traditions of peoples and civilisations.

With his *Basket of Fruit*, Caravaggio paved the way for 'genre painting', specifically still life. The eccentric artist Giuseppe Arcimboldo is considered a sort of precursor of art with food as its protagonist. He is known for his composite heads, which portray imperial figures constituted by vegetables, flowers, fruit, meat, and fish.¹ However, we have to wait centuries before coming up with a conception of art that changes our perspectives and visions of things. Dadaism and Surrealism began to use new artistic techniques and media to carry different messages. The concept of leftovers, of waste to create collages and assemblages, as we saw with Rauschenberg and Paolozzi has been the premise for a new way of thinking and acting in the art field. Thanks to this artistic background, a new generation of artists could develop new themes by using different approaches and media.

And there it is, like a punch in the stomach, with their revolutionary artwork, artists can reach people directly, to make them think, to disgust, to provoke, to sensitise, to send out a message, and raise awareness.

Moving forward in time until Postmodernism, it is worth mentioning one of the masters of Pop art: Andy Warhol and his Cans of Tomato Soup (Campbell Soup I) repeated and repeated, in such a way as to turn the spotlight on the combination of society and consumerism ² as symbols of American mass culture. However, he was not the only one who wanted to report and relate to the global consumerism issue through art.

^{1 &}quot;Il cibo nell'arte. Conversazione con Philippe Daverio". https://www.youtube.com/watch?v=2vEoCjZLAxk.

² https://www.artuu.it/2018/05/10/7-artisti-raccontano-il-binomio-tra-cibo-e-arte/artisti/.

The Swedish artist Claes Oldenburg reproduced everyday objects and food by changing their size and appearance, giving them a new meaning by exaggerating, deforming, and emptying the consistency. Oldenburg performs a critique of consumerism in American society, in particular focusing on food.

Cakes, hot dogs, and ice cream cones of different sizes and materials, and the soft texture of the stuffed canvas. They are invertebrates that rely on gravity for their conformation, and they stand as a parody of the quantitative excesses of consumerism.³ The 12-meter-long ice cream cone that the artist rested on the roof of the Neumarkt Galerie in Cologne is just an example of his works, while *Floor Burger (Giant Hamburger)* from 'The Store' takes its cue from the American fast-food empire, which developed with incredible speed in the 1960s.

The artistic movement called Fluxus, led by George Maciunas, gave new legitimacy to the way of making art. Any object, any action that we can make, can be considered an artwork. And that is also how and why food gained a new role. If any process or action could be art, then even eating or cooking – or just a meal itself – is considered an artwork. First, Allison Knowles with *The Identical Lunch*⁵ and later Judy Chicago, in the eighties, or Rirkrit Tiravanija, Felix Gonzales Torres and Olafur Eliasson were all artists who used food not just as a pretext to do art but as art itself.

Last but not least, the artist Daniel Spoerri who, in 1967, came up with the idea of 'eat art' which, like Pop art, used food as a symbol of uncontrolled consumerism and overproduction in supermarkets. ¹⁰ A sensitivity to sustainability was growing into the minds of people and artists. Excess, cheap products, little attention to transformation: it was in this period that the first forms of artistic denunciation against the choices of the present, mistakes, useless waste, consumerism that crushes and resets everything to zero, began to appear.

An example of artwork that followed this lead is the one of Björn Steinar and Johanna Selemann: *The Banana Story*.

With this artistic project, they could show the effects of the lack of seasonality and the need for constant availability of goods, by revisiting the concept of 'made in' through a common fruit. A work

³ https://insideart.eu/2017/07/27/la-storia-di-the-store-il-negozio-in-cui-claes-old-enburg-vendeva-i-suoi-cibi-giganti/.

⁴ https://www.wikiart.org/en/claes-oldenburg/floor-burger-giant-hamburger-1962.

⁵ https://www.wikiart.org/en/alison-knowles/george-maciunas-performs-the-identical-lunch-1969.

⁶ https://tinyurl.com/y6t2d42p.

⁷ https://www.moma.org/collection/works/147206.

⁸ https://www.felixgonzalez-torresfoundation.org/works/untitled48.

⁹ https://olafureliasson.net/archive/publication/MDA118052/studio-olafur-eliasson-the-kitchen.

¹⁰ http://www.danielspoerri.org.

¹¹ https://johannaseelemann.com/Banana-Story.

Waste Matters

that makes people think about the meaning of sustainable food.

All in all, the use of leftovers as artistic subjects, the introduction of food in the artistic practice, art as a social agent that raises awareness among people – particularly on ordinary things, such as food – are constantly developing. What remains is that the themes of food and art will always be part of us and will always be in a never-ending dialogue.





A set of instructions by Gayle Chong Kwan to guide you in the realisation of a *herbarium* from domestic waste.

Following is a selection of works realised by the students of Ca' Foscari University of Venice involved in the *Waste Matters* project.

A4 card, A4 paper, waste foodstuff, pencil, digital camera, heavy books

- Keep any vegetable food waste that will dry out when left on a tray/ oven tray for one week. Leave it to air-dry.
- Place each food waste on a page of paper with paper below then place a piece of A4 paper on top of it.
- Put one heavy large book on the bottom then place one piece of card on top of it then layer your paper and food waste.
- Place at least one heavy book on top of the stack or as many as you have and leave for at least 5 days.

Follow the conventions of making a traditional herbarium and for each waste food stuff write:

- Date
- Location
- Habitat
- · Height and spread
- Representation or show variation
- · Record characteristics
- Describe in detail colour size and shape texture

Expand and complicate the conventions of a traditional herbarium:

- Write the temporal nature of it.
- · Write the relational aspects of it.
- Consider its ecology of place, people and communities, other habitats and ecologies further afield.
- Describe your personal relationship to it.
- How is it used by you or your family in terms of eating, cooking, growing.
- · Write your memories of it perhaps from childhood.
- Describe how it smells, what it is like to touch, what it tastes like.
- · What is your emotional reaction to it.
- Imagine life from its perspective and write a short paragraph or poem detailing this.
- What could be its role in a meal, its use in a recipe.
- Research and make notes on how cultures, other than your own, use this food stuff.
- Is this foodstuff used in medicine, if so how?
- How might you imagine it was transported?
- · Research the history of its cultivation.





CARROT PEEL

30 th September 2020 DATE LOCATION Hestre, my bedroom, Birst room on the right

Undergrand HABITAT

HEIGHT & SPESAD 7MM-DYMM 8/9 cm

Rappresentation a shour verishion: Since 30th September the peel reduce its surface, it seems that its shruked in itself, it change

DESCRIBE IN DETAIL COLOUR SIZE AND SHAPE TEXTURE It went from a very epht orange to a brownish orange it had one rough side and one smooth side (resoluting from the cut) now (5th October) the sides are the same, they became both find of rough. It's almost completely dry

The peel of the canot unotized in the kitchen like the rist of the canot. I really love though canot and porato soup because both my mother and grandwolfer used (and still use) to cook it very after during writer time. I used to compare both recipes but I still can't decide with afthem I like the most. it doesn't smell, it's very light and it tastes like autuma. It feels like home.

BE A CARPOT PEEL

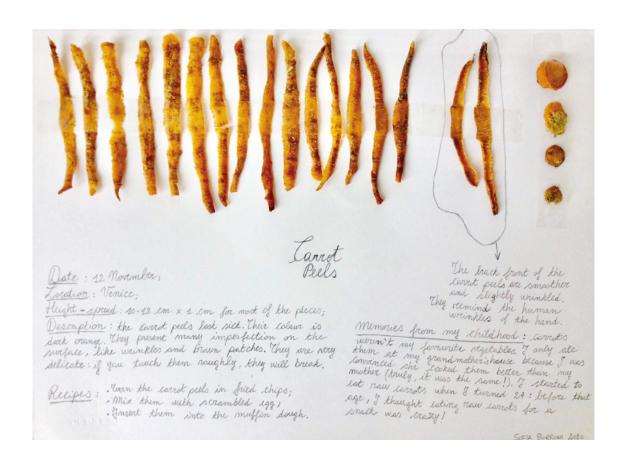
- unth this is very warm and cory - and very dark! ... no want I leave me here, I snell have to grow a little but !!! Oh no! Look at this place , too much light too many people stering

Oh this is nice, a little trip. I actually start to enjoy these trips. Wart! What are you doing ?!?

This is very cold and wet, I feel like I don't have enough orange in me aujuare

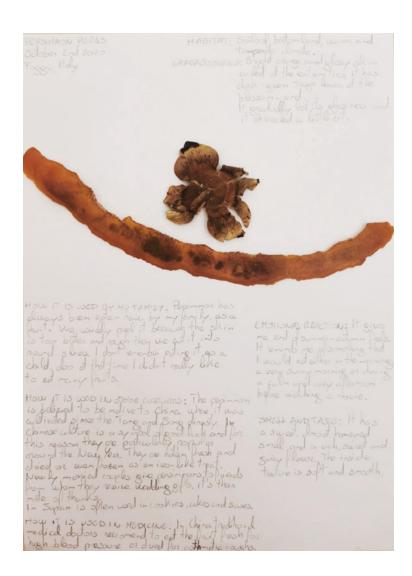
Oh It's dark again

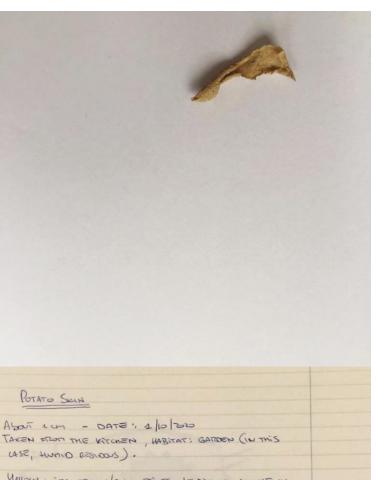












YELLOW WITH BROWN COME POINTS. IT DIDN'T CHANGE IN COLORE, BUT IT BECARE DRY AND SCHOOLER.

WE EAT A CO OF POTATORS THEY SEE EASY TO COOK AND LAN BE USED IN MANY RECRES (POTATORS' SOUP WITH PICE IS A "MUST FO" DATING WINTER AUTUMN IN OUR FAMILY; IF'S A SON OF TRADITORY TO "FEWO OFF" (DUOS AND SUCK).

ORIGINARY FROM THE ARENIUS, ALPONIN IT WAS WHER RECORDED THAT THEIR ROOTS WERE IN NOTE THAN A SINGUE COUNTRY, THIS FOOD WAS INTRODUCED IN EUROPE DIVING THE ROTH CENTRY. IT'S ONE OF THE ROSK EARTH FOOD.

FINAL THOUGHTS: EVEN THE STRREST THING ON BRENG REPORTES OF THE POST, OF FAMILY OR FACES AND TRADITIONS. (WE SHOWN LET CURSELVES BE PAKEN BY THESE PREPORTES AND ENJOY THE POTTERS, ALMAYS.

THE DATE: 05/10/2020 COCATION: Coppelle Maggiore (TV), They MAGITAT: native to Central Asis, cultivated worldwide HEIGHT AND SPEEAD: 15 x 2 REAGEN ZATION / SHOW VARIATION: Small cracks on peels RECORD CHARACTERISTICS: Ned wobur, round shape OSE; exten as a snack; used to prepare descrits of exples trees. GROWTH: cultivated in my garden with lots gave me for afternoon so HETERIES: it reminds me of my childhood used to cut this fruit and SHELL, TOUCH AND TASTE: Sweet and toy me of my oblithood ENOTIONAL REACTION: apple reminds I grew up. In fact, grandpo tu cultivate h the place where Used to help my to rake hay and pick regetable garden, fruits from the trees, apple in particular. LIFE PERSTECTIVE: I'm called the fruit of shin. I don't think a fruit People ate me to have knowledge represented something Edu give total Know Hedge. I Corbidden and cursed. were, someone else, someone For Christian belief I was the Devil and I succe ased Into my gap. Wousdays bt to outen your first Parents we and my power of directly of people are forgetful of load. I set without making asoun thouselves into an impointable RECIPE: It's the protogonist of the Trentino desert called "struck!" Hy grandin cooks It many times and I frequently est it when I go to the wountern & 2 walk. It's very easy to prepare: inside expult jestry roll garput out apples, raishus, toasted plue muts, ground chromon, rum, benon, breadcrumbs and sugar. USAGE: eaten as a snack. DIFFERENT WITURES: Offler one caken with honey at the Sewish New Year of Rush Hesharah Through distillation, noumerous 20 holic HEDICINE USE: they see compands that presence beverages an Calvados and applicable. study, esting one apple per day from whee baden's and wold. According to prevents from Alahamer's disease and Parkinson's PLACE OF CULTURATION: they are mainly cultivaled in Chine, USA and Poland The apple I also was mough on a tree at home. I took and TRANSPORT: Km O. KISTORY OF WUTINATION: In South Europe apples might have been esten stone Neo Withire. This cultivation was spread between en Greeks and Komans. During Hiddle Ages peop she different qualities of oppler. Then, through geographic exporations, apples were Introduced in America, Australia and New Tedand.



The nuesing mother's heclapium Dote: 25/10/2020 - 04/12/2020 Location: Venecia Italy, Doesoules holitat: all product's from Italy degious (Vareto, Rigita Sterlia) Dimenerou: from 13m2 to 73m2 Agressentation: decid leftonces from the nuasing mother's needs is contain: *eggshall; time poet egstell; kin poet
onious pools; carlie poels
avocado's poel all deid Open air · peeling a tangering · auscade and peach seeds Detailed description: this products were used for the rusing notice as help to feed beg newhorn Just 4 mth.) As far as her man is evision all peadured were used for the other sual Russian meal and had been explicated once and over again. The italian concept follow the kule to have just theban Products (specially family & vaporallols), so the prevention of each orticle has a common base: the boat market on Dorsalin in Venice from fauit soller named Paulo.

.5/10/2020

· CAMPOBASSO, HOLISE, ITALY

QJSOW JOHN (CATELL AND STINES) AND STINES CAPENTS THEN DISCONDENDED BY MINDER CAPENTS AND CALL LAND OF THE WORLD BY SHOULD BE CONTACT BY MINDER CAPENTS AND THE WORLD AND THE WORLD AND THE WORLD SHE CULTIVATES TO AND COME OF THE WORLD WHITE THE WORLD AND THE WORLD THE WORLD THE WORLD BY THE BY THE BY THE WORLD BY THE BY TH

TONATOES PERSENT A PINOTAL INGESPIENT OF MY FAMILY DIET AS WE OTTHO SO THEM WITH PASIN OR OTHER MEALS. I ASSOCIATE THEM WITH SONT OR OTHER MEALS. I ASSOCIATE THEM WITH SUNTER MORE PART OR THEM WITH SHAPE THE MEMBERS HOT DAYS AND WATER. HOPEOVER, MY GRANDTHER PRESERVES FOR THIS VEGETABLE IS STRONGELY OF THE OTHER OF THE MEMBERS OF THE WALL OF THE MEMBERS OF THE WALL OF WAL



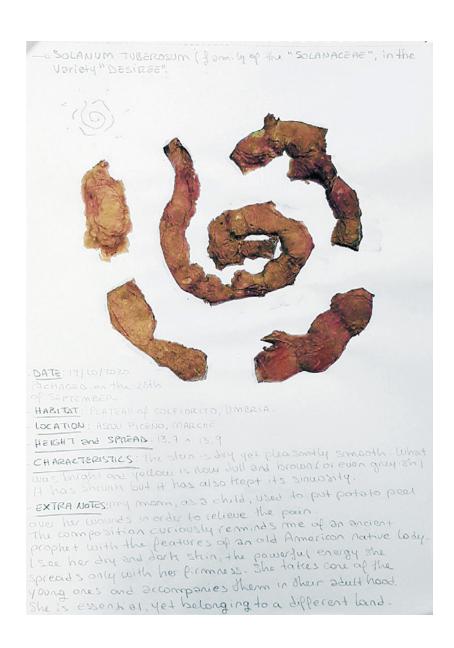


DATE: 1st November LOCATION: VICENZA, ITALY

HABITAT: PERU', BOLIVIA, MEXICO
HEIGHT AND SPREAD: A piece: 14 cm x 1 cm; the sest: 5 cm x 1 cm
REPRESENTATION OR SHOW VARIATION: DRY, FROM LIGHT BROWN, TO
DARK BROWN

DESCRIBE IN DETAIL , Brownish, Dry, Wrinkled

- · Patatoes were always present in my family table. As an easy to cook food, when we don't know what to eat, potatoes are always an aswer.
- . I remember when my grand mum always cooked them for me and to my bnother, only in the oven because fried potatoes evere bad for our health.
- I would say that potatoes, because they can be cooked in different ways
 they can change their samell and their taste, bepending on the method
 of cook or if you use spices or not.
- . Everytimme I see or smell potatoes I always think that, it is going to be a good imeal.
- · Potations are not a family food, they are friendships and loves kind of food. Especially if they are fried, potations with people. In my friends group, we often meet to eat fried potations and we don't where them with people we are not really confortable with.





LOCATION MY ROOM, TRADATE (VA), LOMBARDY

- · DEREIMMON CHILD SEND
- · GARLIC central asia

VARIATION the leafs are way less soft and almost feel like paper the pretammon stem is less valve, like the leafs ABOOT anion or garlic instead, they didn't variote that much

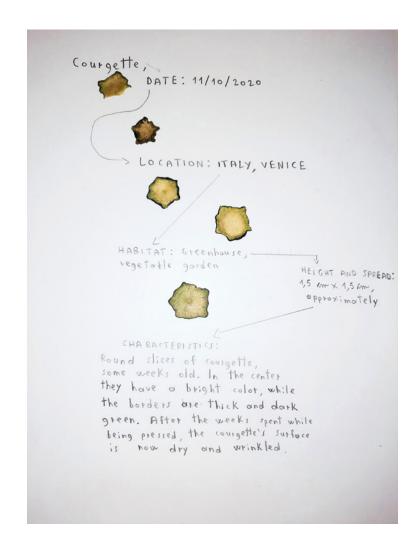
Tex buse / colore: the stemanol the leaves look less vivid and more like pellow garlic and onlon are a little more visa d

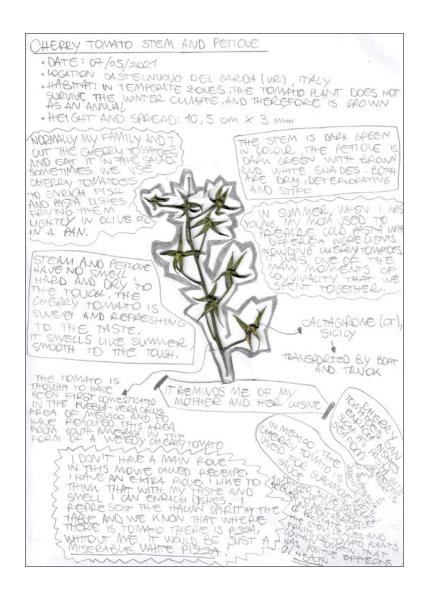
In my family I have aways seen my man very gard and onton in almost every receipts that affords it. They are used for the "TOFFITTO" fondamental for souces, neat ...

In that case these onion and Daruc were used to prepare a

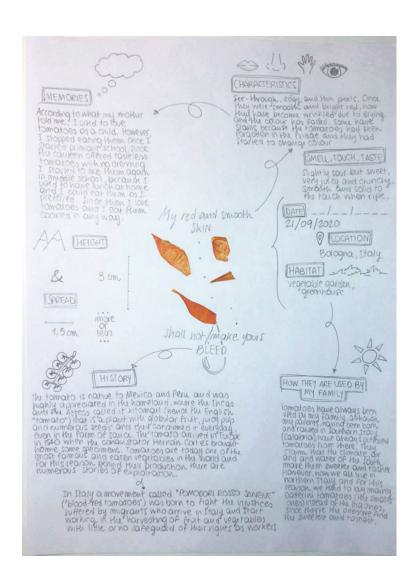
sogo (tomoto sauce) with mest to lago"

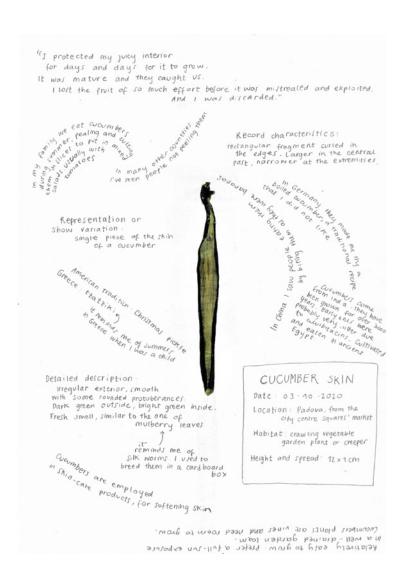
instead I have always loved paraminon in this periods of the year. I also use to diain it in order to earlit out the fear





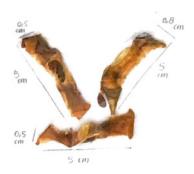






Apple

C5 10 2020
VENICE (17ALY)
trees originally from Asia
and Europe
fruit growth: from flower to fruit



- . usually the pomes present different colour but mainly three; green, yellow and red
- . used usually in sweet dish but traced in salty dish, such as rusollo, too
- . has a inidical use: apples incuase sugar in blood
- to me, apples mean autumn! there udner and their smell amend me the fallen leaves
- . I usually take different sweets with



GRANDINA'S HOME.

DATE: 26/10/2020
LOCATION ZELARINO
HABITAT: ORIGINALLY INDIA AVE
CHINA
S&H: 3 x 2,5 cm

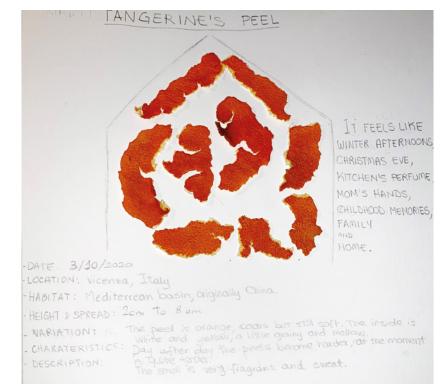
WITH NOT COMLETELY
SMOOTH PEEL. IT HAS
A SPECIFIC FRESH SMELL.
WHEN CUT IN HALF, INSIDE, PART
OF THE PULP IS WHITE.
IT HAS ISOUR TASTE.

MY FAMILY ACUAYS ADDS THE
LEMON TO THE TEA, AS A FUNDAMENTAL ELEMENT, INSTEAD OF MILK.
IT IS ALSO USED, IF MIXED WITH HONEY, AS A SYRUP FOR
SORE THROAT. SURECY IT IS WIDELY USED IN COUSINE:
AS AN ADDITION TO CAKES, PLUMCAKES, OR FISH, WHEN
COOKED IN OVEN.
IT REMINDS ME OF FRESHNESS, OF SOMETHING CLEAR AND
TIDY, AND ALSO ... OF TEA, SO OF WINTER AND OF MY

"I ALWAYS STAY IN A BASKET, CONSTANTLY USED, OUT. EVEN MY REEL IS USEFUL FOR SOMETHING. HOWEVER I DON'T UNDERSTAND WHY PEOPLE ARE SO DELICATE WHEN THEY TASTE MY JUICE. MOST OF THEM THROW ME AWAY CHTOUCHED LEMON IS USED NOT ONLY FOR "SEASONING" BUT IT HAS PLENTY BENEFICIAL EFFECTS ON REOPLE'S BODIES, IT HELPS DIGESTION, WHITENS THE TEETH, PROMOTES HYDRATION AND IT IS A GOOD SOURCE OF VITAMIN C.

THET ARE THOUGHT TO HAVE BEEN ORIGINALLY CULTIVATED IN NORTHEAST INDIA AND NORTHER BURMA OR CHINA.

SPANISH CONQUEST THROUGHOUT THE NEW WORLD HELPED SPREAD LEMON SEEDS. IT WAS TRANSPORTED ON SHIPS, NOW SURECY ALSO BY TRUCKS.



EXTRA MOTES

During winter season this fruit is always present in my hitchen like a tradition me and my family eat it. like a sweet treat, after every near. Its strong and sweet smell, remembers me of Christmas, as a child I left transperines on the kitchen table thinking Santa would have earen after leaving all the affts under our Christmas tree. Tangerine is an important fruit: it is the original fruit from which derive many others citruses. It's used especially to make marmalade, or essential oils.

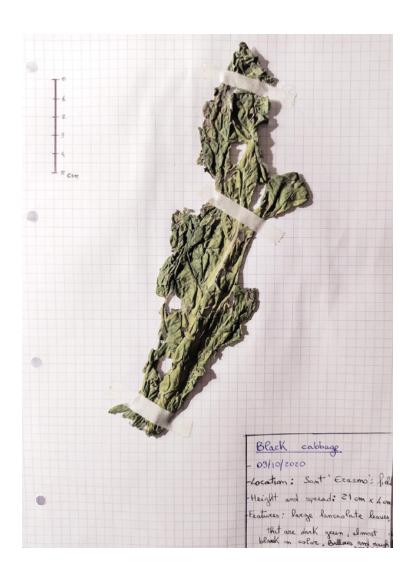
Tangerine's origin habitat is China, but iduring XV certainy, has been exported to Europe, especially in Spain and Parayal.

- · Variation: the peels have become a little softer
- meals, for example her famous of years ago. My In a pan with



· | cooked this carrot in a pan with a little oil, some water, supar and vinegar.

- the touch and taste savory when raw, sweet when
- of them in the last Months that, to be honest, I am quill sick of them.
- · They can be used as a side dish with other vegetables, in soups; my mum puls
- . I know that in the Usa they have started to make carrot cupeater and takes in ladia they use carrots alongside with tomacoes, partie and onlons to make side dishes to go alongside with dosa (kind of bread), this one specifically is called carrot "chutney" · Carrotr are very good for eye-health, but also for allergies, cheumatism, ...
- . The original carrots were actually purple or white, not orange Some Nether lands for mers crossed them with some african corrots to omage the king's Lynasty ("orage") They grow on fields of sand and city its roots need a lot of nutrients.
- " A poem about carrots: My barriers of plass let me ree the world Be coming old, slowly wiltering Blossoming and petting to know themselves The circle of life





· Name: tangerine peel

· Date: 20.10.20

· docation: Mestre (Venice), Italy

· Origin: Sicily, Italy · Cabour: orange

One of my fovourite foods is the fruit: I tove its sweetness and the foothat it contains a voit of yiramins, reduj impartant for our health. In this season I'm used to eat many targetines. The thing that I have about this fruit is its intense arane. When I peel it, its partwood smell remains an my hands for blood of time. At the end of the pressing time of this piece of tangetine peed. I haven't seen thing differences.

Only the coulor on the edges of the peels lis changed; It is ibecome darker. Another difference is the foot that yield tangetine peed the peel coesn't perfune on mare.

ARMILLARIA MELLEA. (family PHYSALA CRIACEAE)

EDETRH NOTES:

amillaria mella mustroon re considered god edilles though some individuals are reported allergic reactions. he mushrooms have a taste that is seen described as slightly rocket not mutty, with a texture roughly hom deway to crunch depending on the method of perocution

Boralocking mushrooms lylore Consuming removes the britter toote probate in some spellmous and may reduce the amount of gostrointertical wirdouts napalog to one quide they must be cooked before lobbig. The markowns can be also be







DATE: 25/10/2020.

CHARACTERISTICS: I'm distribe of the effer was ond enough - tellow when , often with a neighbour date

HABITHT: The mosts are widespread in all associal environments, and in all multivoted betiters of the countryside and cloud the works of dittles and richs, wherever there is a vachance fact

LOCHTION : VITTONIO VEWETO (FRE GONA)

HEIDHI and SPREAD: The stige is of worisble slongth, up to obsect rolling (Pin) larg and 3,5 cm (1 1/2) in diameter



