



Environmental awareness through mural art: a survey of iconographic representations of whales and polar bears on Italian walls

Stefania Benetti^a, Giovanni Modaffari^b

^a Department for Sustainable Development and Ecological Transition, University of Piemonte Orientale, Vercelli, Italy

^b Geography Research Unit, Faculty of Science, University of Oulu, Oulu, Finland
Email: stefania.benetti@uniupo.it

Received: June 2024 – Accepted: October 2024

Abstract

Marine plastic pollution is one of the most significant global challenges, with domestic waste, fishing nets, and microplastics contributing to the formation of plastic islands in seas and oceans. Other forms of oceanic and coastal pollution are caused by agriculture, sewage, urban areas, industrial discharge, oil spills, maritime traffic, and more. In response to this, a whole series of awareness and educational initiatives has aimed to highlight the threats faced by marine environments.

Photojournalistic investigative projects, documentaries, videos produced by international organisations, and musical videos, among other artistic works, have tried to reshape how seascapes are perceived. Within the context of the relationship between geography and art, this contribution explores how artistic and creative actions, in particular through specific forms of muralism, have attempted to foster greater sensitivity towards the sea and the ocean within the Italian sphere.

Adhering to the concept of popular culture as a means of disseminating environmental discourse, the research delves into the role of murals in shaping our perception of endangered seas and oceans, portraying seascapes in need of conservation. Through visual analysis and an iconographic approach, the article examines the portrayal of animals in artworks, emphasising how certain symbolic species (especially whales and polar bears) have become visual icons in promoting the conservation of seas and oceans. While the inclusion of such animals in artistic activism serves to evoke emotions and raise awareness of environmental issues, it also runs the risk of being criticised for oversimplification.

Keywords: Ecocritical Geopolitics, Symbolic Landscapes, Murals, Flagship Species, Animal Geographies

1. Introduction

On 20 March 2024, the International Union of Geological Sciences (IUGS) announced that the Anthropocene, which is the era of human-

induced change (Crutzen and Stoermer, 2000), is not a formal epoch in Earth's geological timetable. Despite the protests at the vote of the sub-committee formed by a group of

geoscientists, the term will continue in widespread popular and scientific use and remain an invaluable descriptor in human-environment interactions (Witze, 2024). Indeed, it is undeniable that we live in an era in which environmental and climate change is largely anthropogenic and driven by political, social, economic, and psychological forces, and these changes have also had a significant effect on marine environments, which cover over 70% of the Earth's surface (Goulletquer et al., 2014). According to the definition proposed by the UN advising Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), marine pollution is the "introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of seawater and reduction of amenities" (GESAMP, 1982). In fact, the principal forms of oceanic and coastal pollution derive from plastic waste and fishing nets, agricultural runoff, sewage from urban areas, industrial discharge, oil spills, maritime traffic, and so on.

Domestic waste, fish nets, and microplastics feed plastic islands in seas and oceans. Some estimates (Farrelly et al., 2021; Kerber and Kramm, 2022) expect an increase of between 36 and 90 million metric tonnes of plastic waste in 2030 in the world's waters. To date, there are five main oceanic plastic islands (the North and the South Atlantic, the North and the South Pacific, and the South Indian Garbage Patches) which are the result of the millions of tons of waste which have invaded the waters of the seas and oceans (Lebreton, 2022). These garbage patches are floating dumps of debris trapped in the oceans' eddies, also for years on end, fragments of microplastics mixed with plankton, which is the basis of the entire food chain. As for the Italian seas, less known is the "plastic soup", which accumulates in the Tyrrhenian Sea in the area between Elba-Corsica-Capraia (Italy). Unlike the immense plastic islands in the oceans which owing to a series of constant currents remain in the same place and are more compact, the plastic soup stays in the same area for a few weeks and then moves elsewhere, in

this case because of the Mediterranean currents (Suaria et al., 2016).

Marine pollution also comes from other sources. The excessive presence of some nutrients, in particular nitrogen and phosphorus, that can act like fertiliser, are causing a disproportionate growth of algae and low levels of oxygen dissolved in the water. These nutrients can come from different human sources: chemical fertilisers in agriculture and gardening, urban wastewater, as well as burning fossil fuels. This process is known as eutrophication and is particularly common in coastal areas and the estuaries of rivers (Pavlidou et al., 2024). It is a problem often overlooked (Breitburg et al., 2018) which, by changing the biogeochemistry of our oceans and increasing oxygen consumption, can result in ecosystem collapse. In addition, enormous damage can be caused by accidents during offshore oil drilling or oil transportation. Coastal oil refineries are another potential source of pollution because of the small-scale leakages, spills and pipe breakages that can occur even during routine operations (Islam and Tanaka, 2004). Moreover, the mere volume of global maritime traffic has direct and indirect consequences for the marine environment, contributing, for instance, to the spread of invasive species, habitat destruction, the death of marine mammals, and noise pollution. To sum up, considering the oceans and seas system as a whole, the mounting human pressure combined with climate change are leading to higher ocean temperatures and acidity and rising sea levels, together with ocean stratification, shrinking sea-ice and changing patterns in ocean circulation (Doney et al., 2012).

In this context, a plethora of sensibilization initiatives such as photojournalistic investigative projects, documentaries, videos produced by international organisations, music videos and other artistic forms, has attempted to raise awareness about threats to the marine environment, producing new images and enhanced knowledge of the seascape. As a further example of the creative relationship between geography and art (Hawkins, 2011), this contribution explores how artistic actions in general and the art form of muralism in particular used as tools of geographical

education, can foster greater sensitivity towards the sea and the ocean in the Italian sphere. Art forms such as those cited are also geographical in nature because they maintain a link with the places where they are created, acquiring significance thanks to the position they occupy in public spaces (Bengtson, 2014; Blanché, 2015). Following the idea of popular culture as a means of disseminating environmental discourse (Dell’Agnese, 2021), this article explores the role of murals in constructing an image of seas and oceans in danger, portraying seascapes that need to be saved. Starting from a brief description of the neo-muralism phenomenon, we give a few examples of Italian street art festivals dedicated to raising awareness about nature and defending marine environments and using visual analysis (Rose, 2012) and the iconographic approach (Cosgrove, 1984), we explore the use of iconic animals in artworks (Par. 2). Considering the idea of landscape as a symbolic structure which may be interpreted to yield a deep deposit of social, political, and cultural meanings (Cosgrove, 1984), the study set out to trace the development of specific symbolic animals that have become visual icons for building the image of sea and ocean conservation. In particular, we present some examples of murals¹ depicting whales (Par. 3) and polar bears (Par. 4): moreover, by exploring online channels (i.e., the official webpages of street artists, as well as interviews, street art blogs, and official city council websites) (Bowen, 2009), we highlight the interconnections between the environmental awareness messages and these specific animals within some Italian urban landscapes. Finally, we discuss (Par. 5) the artistic use of these animals as a form of activism which arouses emotions and creates awareness on environmental issues, also examining criticisms and risks of oversimplification.

2. Neo-muralism, environmental activism, and symbolic animals

Mural art has ancient roots, but modern

¹ The cases were selected based on the most prominent artworks, and more specifically, on those that appeared most frequently in social media and search engines such as Google Images.

muralism began in Mexico between the 1910s and 1920s, when it became a tool for promoting national identity and unity after the Mexican Revolution (Gianquitto, 2019). These murals served as political and educational expressions of shared history and national identity. The movement later spread globally, addressing social and political themes. Nowadays, muralism continues to evolve as an art form, and now refers primarily to large-scale works on street walls and buildings. In particular, we now use the term “neo-muralism” to describe a recent trend in urban art which has seen the institutionalization and commercialization of street art aesthetics (De Innocentis, 2017), a trend that has led many artists to decorate walls within art festivals or as private commissions.

Recent years have seen a surge in this phenomenon, often under the banner of “street art festivals” aimed at revitalizing cities, particularly neglected suburbs, as well as villages and rural areas. In this regard, Dumont (2024) refers to the “street-artisation” of urban and rural spaces. Actually, most street art festivals could more accurately be described as festivals of neo-muralism. In the geographical disciplines, urban regeneration art festivals are considered a tool for promoting social cohesion, consolidating communities, strengthening a sense of place, and moving territorialization processes (e.g., Hawkins, 2013; Amato, 2015; Privitera, 2017; Guinard and Molina, 2018; Iovino, 2019). This kind of event operates on different levels, claiming the right to art and the right to the city (Lefebvre, 1968; Lo Presti, 2016; Mela, 2021), and also promoting the power of street art “to engage, effortlessly and aesthetically, the masses through its manifest creativity, skill, originality, depth of meaning, and beauty” (Riggle, 2010, p. 243). The first level means recognising the art form as a bearer of cultural value, while the second refers to the claim to enjoy public space by modifying it and attributing new significance to it. The third concerns the communicative power of muralism: walls of a considerable size come alive with colours and creativity and artists offer their messages up for public enjoyment by the local community and lovers of this art form as well as tourists. Moreover, the widespread photographic documentation and circulation on the web and

especially through social media provide a faster route for reaching a potentially global audience, allowing free access to street works, offering evidence of works that have been lost, and creating a virtual showcase for the artists.

Focusing on the Italian case, several street art festivals have been dedicated to raising awareness of nature and the defence of marine environments, and they have seen the involvement of artists, public bodies, private companies, local associations, and environmental groups. In 2018, for instance, Turin City Council set up a street art project with the Lavazza coffee company entitled “Toward 2030. What are you doing?”², with the aim of recreating the United Nations’ 17 sustainable development goals (SDGs) in the form of urban artworks. Eighteen murals were placed throughout the city, corresponding to the seventeen SDGs plus Goal 0 entitled “Spreading the Message” conceived by Lavazza in support of its commitment to achieving the objectives of the 2030 Agenda. The project involved leading international and Italian street artists and historical crews of Turin graffiti art, creating a participatory and inclusive path between citizenship and actors to respect the territorial and artistic identities.

Another example is Worldrise, a non-profit organisation that acts to protect the sea and reconnect people with nature, especially in the urban context, where most of the population is concentrated. Through the “Worldrise Walls” project³, the association has created vast murals on the walls of Italian cities which depict images of climate change, pollution, and loss of biodiversity. As part of its 30x30 Italy Campaign to increase the proportion of protected areas to at least 30 percent of Italian seas by 2030, Worldrise presented “Ocean and Climate”⁴ in 2021, a project to create 10 marine-themed murals in different Italian cities, with

certified eco-friendly water-based paints. The project was carried out on World Oceans Day, in collaboration with the Sky Italia TV Channel and the European Commission, and with the support of several private partners. Walls in Italian cities were dyed blue to raise awareness of the key role that protecting the marine environment plays in combating climate change.

Other projects are designed and supported by street artists. The “Climate Art Project”⁵, for instance, is a multidisciplinary initiative blending art, science, and activism, created by the artist Andreco. Consisting of a series of artistic interventions (including murals and installations) in various cities worldwide, its goal is to raise awareness about global warming and climate and social justice, promoting Nature-Based Solutions and best practices for adapting to and mitigating climate change. In the same vein, “Systema Naturæ”⁶ is a project by the artist Emanuele Poki that explores environmental and ecosystem-related themes. In collaboration with various organizations and scientific institutions, it fosters artistic initiatives focused on environmental education and the preservation of native species and the local territory.

These kinds of initiatives thus help to create and communicate awareness of the environment seen as a real form of activism and of education. But which symbols are used most often in murals to embody the environmental struggles related to marine environments? From a visual and iconographic analysis, it is clear that animals are often used as symbolic forms in the artwork in order to spread awareness of issues concerning the environment. For instance, the anonymous Belgian artist ROA represents animals because “they are fundamental within the cycle of life”⁷. Very often, ROA’s characters are animals from the place where the works are located, such as the She-Wolf in the Testaccio district of Rome related to the legend of the city’s birth. Or they are unusual animals, not

² <https://www.lavazzagroup.com/it/le-nostre-storie/progetti/art-and-culture/toward-2030-what-are-you-doing.html>. (last access: September 11, 2024). <http://geoportale.comune.torino.it/web/arte-urbana-torino/galleria/toward-2030/intro>.

³ <https://worldrise.org/wrw/> (last access: September 11, 2024).

⁴ <https://30x30.it/oceanoeclima/> (last access: September 11, 2024).

⁵ <https://www.climateartproject.com> (last access: September 11, 2024). <https://linkurbanartfestival.it/emanuele-poki/> (last access: September 11, 2024).

⁶ <https://www.instagram.com/systema.naturae/> (last access: September 11, 2024).

⁷ <https://www.disagian.it/roa-street-art-ed-i-suoi-animali/> (last access: September 11, 2024).

well known by the masses, such as the Weasel in the Aurora district of Turin which feeds on mice, representing the natural role played by small predators in river areas to control pests instead of using toxic chemicals. In the Italian context, one of the artists who collaborated with ROA is Moby Dick⁸. For over 15 years, his artwork has symbolized resistance and awareness regarding the preservation of wildlife and marine ecosystems. By turning walls and facades into visual narratives, he has portrayed tigers, elephants, whales, sharks, and even animals that are not endangered species. In addition, Moby Dick is actively involved with several environmental organizations, including Sea Shepherd.

The main trend of street artists is to place at the centre of their artworks the so-called flagship species, i.e. high profile, charismatic, or ambassadorial species that become symbols for conservation movements and campaigns (Simberloff, 1998). Borrowed from the naval world, the term flagship described a ship being at the centre of attention for an entire fleet of ships (Jepson and Barua, 2015). Following this naval metaphor, then, a flagship species came to represent an entire ecosystem, capturing the public's attention and generating forms of support leading to conservation actions. In the animal geographies literature, however, the representation of flagship species has been called into question (Lorimer, 2007) since it can overshadow the need to conserve other species as well. Despite these critical aspects, political and societal acceptance of flagship species is a prerequisite to transforming nature conservation culture into real-life actions (Barua et al., 2012). The elephants, flamingos, turtles, and butterflies represented by street artists become the bearers of messages to fight against biodiversity loss, pollution, and climate change. In the seascapes especially, it was interesting to trace the development of the use of whales and polar bears as symbols of environmental issues.

3. Whales

The whale, from the Latin *Balaena*, is the generic name for three genera of *Misticeti*

Cetaceans in the family *Balenidae*. The whale proper is a huge mammal, over 20 m long, and is the largest animal in existence. Whales live in the large cold oceans (the Arctic Sea, the Atlantic, and the North and South Pacific oceans); they feed on minute planktonic organisms and make periodic migrations in connection with melting ice. Because of their very high economic yield (meat, oil, and fat) whales have been subjected for centuries to extremely intense hunting in all seas. In Herman Melville's classic 1851 novel "Moby Dick", whaling is described as a daring and risky endeavour in the service of the American economy (whale oil was used for lighting cities, lubricating industrial machinery and for body care). Symbol of the progressive spread of industrial capitalism (Abel, 2005), whaling was linked to ocean exploration and imperial power (Armstrong, 2002). From the beginning of the 20th century for the next 70 years, a series of technological innovations ushered in modern whaling, which drastically reduced the number of cetaceans in the Antarctic Ocean. This practice was later described as "one of the darkest stories of resource depletion the world has ever seen" (Andresen, 2004, p. 42). Although the International Whaling Commission (IWC⁹) was established in 1946, it was not until the 1960s that most nations abandoned whaling, due to dwindling stocks and falling whale oil prices (Peterson, 1992).

Moreover, thanks to a political campaign, by 1986 the IWC had managed to bring into effect a total ban on commercial whaling, which is still in force today. Over time, whale-hunting has been regulated by international conventions with restrictions designed to safeguard wildlife. However, there are some exceptions: the small-scale subsistence hunting of indigenous populations in areas such as Canada and Greenland; the small-scale commercial hunting of minke whales conducted in Norway since 1993; and the critical case of Japan, which justifies whaling in the Antarctic and North Pacific in terms of scientific purposes (Danaher, 2002; Blok, 2007).

⁸ https://www.instagram.com/moby_dick_artist/ (last access: September 11, 2024).

⁹ <https://iwc.int/en/> (last access: September 11, 2024).

In this context, starting from the 1970s, whales have become part of a world-spanning iconography of environmental conservation, a powerful symbol of the battle of environmental organisations. Several environmental associations are engaged in conservation and research on whales, as well as the fight against illegal hunting, while others wage battles for animal rights and whale rights. Initially, the whale represented all that was beautiful and sacred about wild, unspoiled nature (Blok, 2007); now, it also embodies the emergency of plastic in the seas and oceans, as well as the fight against marine pollution. The examples are very widely, from documentaries to photographs, as well as art installations. Just to mention one, in 2018, Greenpeace¹⁰ installed two whales emerging from a sea of disposable plastic in the square in front of the Pantheon in Rome. A demonstration action by activists to denounce how the seas and the species that live in them are in grave danger from the immoderate use of disposable plastic.

The world of neo-muralism also offers us several examples. In 2015, the artistic duo Nevercrew created the mural “Signalling machine” for the Urban Canvas project in Varese. The work represents an enormous whale wrapped in red and white fabric (Figure 1A), the typical colours of road signs. The idea was to make people think about the responsibility of humans with regard to nature. As stated in an interview¹¹ with the artists, some animals, including whales, represent the difficult relationship humans have with the ecosystem. The image of the whale is often used to highlight this role: for so many years, countless whales were killed in order to obtain oil for burning and lighting. In this sense, the artists addressed the visual value the whale may have as an ecological icon, conveying a direct message that does not need clarification.

As regards the plastic problem, on the occasion of the aforementioned project “TOward 2030. What are you doing?” in Turin, the artist Mrfjodor painted “The Rubbish Whale” (2019)

to represent Goal 14 “Life Underwater”. The subjects chosen by Mrfjodor (alias Fjodor Benzo), are usually elementary, able to convey direct and ironic messages to the user. In fact, his large whale is totally composed of plastic waste and old household appliances (Figure 1B): its eye, for instance, is formed by the porthole of a washing machine. Around her, plastic bags are swimming. Also symbolic is the location of the mural, which is near the Porta Palazzo market in Turin, a place about which it is common to say “If Turin had the sea, the port would be in Porta Palazzo” where “port” is understood as movement and interaction, but also something that remains secret and indecipherable (Carillo, 2018). And right in the port of Turin, “The Rubbish Whale” symbolises the fragility of the marine ecosystem as well as the distracted and short-sighted exploitation of humans (Mastroianni, 2019). Using a direct, spontaneous style, Mrfjodor’s artwork is characterised by its succinct social and ecological criticism of plastic and waste pollution in the marine environment.

Influenced by the Mexican style, the works of Federico Massa aka Iena Cruz attempt to raise awareness about environmental issues; we see large animal figures appear alongside iconic elements of human pollution. A mural that simultaneously captures the theme of industrial pollution and plastic is the artwork “Anthropoceano” (2019) in the Lambrate district of Milan. Here a whale, a manta ray, and a shark are swimming inside and around a big plastic bottle (Figure 1C). An oil platform emerges inside the bottle, from which flames and fumes come out. The choice of animals is by no means random; on the contrary, as pointed out in an interview¹², they symbolise the marine environment endangered by human pollution.

Other examples of murals include Etsom’s work entitled “Whale will you go?” in Lavagna (Genoa), Alessandra Carloni’s mechanical whale in Baronissi (Salerno), and Rosmunda’s white whale in Genoa. The first artwork (Figure 2A) was painted during the 2021 edition of Festivart, a festival of art, poetry, and music.

¹⁰<https://www.greenpeace.org/italy/storia/411/in-azione-due-balene-in-fuga-dalla-plastica/>.

¹¹<https://www.artribune.com/attualita/2015/10/intervista-nevercrew-street-art-teatro-colosseo-torino/>.

¹² <https://www.disagian.it/iena-cruz-mural-artist-ambientale/>.



Figure 1. A) Nevercrew (2015), “Signalling machine”, Turin, <https://nevercrew.com/signalling-machine>. B) Mrfijodor (2019), “The Rubbish Whale”, Turin, <https://www.mrfijodor.it/works/>. C) Iena Cruz (2019), “Anthropoceano”, Milan, https://www.ienacruz.com/2887_STREET#anchor_0010032.



Figure 2. A) Etsom (2021), “Whale will you go?”, Lavagna (Genoa), https://www.instagram.com/p/CR_ZJnjA2VQ/?img_index=5. B) Alessandra Carloni (2019), “Cuci la Ferita”, Baronissi (Salerno), https://alessandracarloni.com/nuovosito/works_zoom.php?id=1006. C) Rosmunda (2019), n.a., Genoa, picture provided by the artist.

Alessandro Conti (aka Etsom) created a whale made of blue and white leaves, proposing a reflection on the beauty and the importance of the fruits of the Earth and the Sea that human beings risk compromising forever. In Baronissi, a mural of a whale stands as the outcome of the 2019 Overline Jam Baronissi event. Alessandra Carloni's mechanical whale (Figure 2B) is swimming in a sea of plastic and waste, while on its back, a young girl hugs the Earth, symbolizing hope for the future. This message is reinforced by the title of the work, "Cuci la Ferita", which means "Sew up the Wound". Finally, in 2019 in Genoa, Fridays For Future organised "an artistic blitz with ecological colours"¹³ in the Brignole train station tunnel. The activity, aimed at enhancing a forgotten part of the city, saw the creation of a mural through the collaboration of artist Maria Bressan (Rosmunda) with the pupils of an artistic high school. The work depicts a white whale swimming in a blue sea, carrying the message "There is no plane(t) B" (Figure 2C).

Whales have therefore gone from being an industrial resource to an environmental symbol and their growing popularity has made them an object of popular compassion, increasing the energy devoted to animal care (Franklin, 1999; Blok, 2007). With the exception of the murals in Genoa, which overlooks the protected area of the International Cetacean Sanctuary, several artworks featuring whales are actually located in urban contexts far from the sea. Cities such as Turin and Milan have artworks like this which emphasise global environmental messages even while being a long way from their native context. From plastic issues to pollution in general, and climate change, the whale has come to reflect human concern for the future of the marine environment and of the entire planet.

4. Polar bears

The polar bear, a creature whose relationship with the sea is already evident from its scientific name, *Ursus maritimus*, is one of the most widespread and symbolically significant

examples of images used in murals and linked to environmental awareness. For decades now, the polar bear has played a leading role in mass media representations of the negative consequences of climate change, a ubiquitous presence that has inevitably triggered controversy and criticism, but which continues to be reproduced, as the works of Saffron O'Neill (2008, 2022) have so eloquently recounted.

With regard to the global environmental discourse, recent years have seen an increasing number of articles in the popular press highlighting the risks, critical aspects, and possible over-simplification connected to the use of the polar bear as a visual metonym of climate change, as well as the constant risk that instead of bringing the issue of climate change closer, the use of such visuals will make it seem more distant (see, for example, Adkins, 2023 and Greenfield, 2023), and this can have a desensitising effect on the public (O'Neill and Nicholson-Cole, 2009, p. 362). In February 2024, however, a photo entitled "Ice Bed" by the British photographer Nima Sarikhani won the Wildlife Photographer of the Year People's Choice Award (meaning it was selected by the public from a shortlist of images chosen by a jury of experts)¹⁴. It shows a polar bear curled up asleep on a bed of ice in Norway's Svalbard archipelago. The strong impact from the point of view of colour and form, the whiteness in the centre of the image constituted by the union of the bear with the ice bed surrounded by the spectrum of blue that extends from the sea surrounding the ice to the sky come together in this reading of an iconic subject that continues to be rooted in global environmental discourse, as confirmed by the fact that this shot was the favourite and won the people's vote.

The winning photograph of the polar bear is the continuation of a whole repertoire of images of this animal, which, just as in Sarikhani's shot, is shown in a position of isolation on a narrow portion of ice, reflecting one of the major concerns regarding the significant reduction in the habitats of animals inhabiting the antipodal areas of the planet. The accelerated melting of

¹³ <https://www.genova24.it/2019/09/una-balena-bianca-per-parlare-dell'inquinamento-del-pianeta-fridays-for-future-colpisce-nel-tunnel-di-brignole-223182/> (last access: September 11, 2024).

¹⁴ <https://www.nhm.ac.uk/wpy/gallery/2023-ice-bed?tags=ed.current&tags=cat.pplsche> (last access: September 11, 2024).

ice as a visible consequence of the Anthropocene has long been an effective way of raising awareness of the importance of protecting our planet. In the photography of recent decades, countless similar images have appeared, though with slightly different tones, such as Arne Naevra's "Polar meltdown", featuring a polar bear on an island of ice (again near Svalbard), which was runner-up in 2007 in the One Earth Award (Shell Wildlife Photographer of the Year)¹⁵.

In her reconstruction of the story of the polar bear icon, O'Neill traces the phases by which, from the sporadic appearances of this animal first in public discourse and then in discourse on climate change, the image reached its moment of "consecration" in 2000, appearing on the cover of TIME Magazine with a bear on a sheet of ice and the caption "Arctic Meltdown: This polar bear is in danger, and so are you". This was followed by the "political bear" phase in which the association was forged with the topic of climate change, with the appearances in Al Gore's 2006 movie "An Inconvenient Truth" and the enthusiastic media coverage in Germany of Knut, the orphaned polar bear cub. Then came the "climate bear" phase from the mid-2000s onwards, during which time the polar bear became a visual metonym, and from the end of the 2010s, the definitive visual representation associated with nothing but climate change (O'Neill, 2022). The characteristics of a visual metonym are its repeated visual grammar, its reproduction across everyday life, the exclusion of other images to represent an issue, and a blindness to political alternatives, which might, for example, focus attention on the root causes. With an equally insidious effect, the imposed metonym "masks the variability of its context", making "narratives seem compelling, familiar and assiduously replicated" (Perlmutter, 1998, p. 17, quoted in O'Neill, 2022, p. 1115).

In a roundup of examples of mural art in Italy, we can start from the city of Orvieto, in the Ciconia area, where one can find one of the numerous examples of murals that recall the iconic composition in contemporary environ-

mental discourse of the polar bear on an "island of ice". The work by the Pisan artist Rame13, created in 2017, covers the facade of a power distribution substation and is eloquently entitled "SOS Polar Bear" (Figure 3A). The local press presented it as "an appeal for the environment and sustainability". The bear is almost a comic caricature, with a paper boat hat on its head that seems to be flying off as a result of being bitten on its tail by a piranha. In the background, the icefloe it is drifting on is lost against a tropical horizon of palm trees and red skies. Observation of the image reveals spatial and temporal overlaps parallel to those of some lines of environmental discourse. In the Orvieto mural, the spatial overlap in the landscapes of the content is accompanied by the spatial overlap of the presence of an icon and a message of this kind (now of global understanding) in a limited local context in many ways "foreign" to the message itself, considering that polar bears and piranhas are not native fauna in the area where the mural is located, nor are they present in the country.

In O'Neill's discussion of focus-group responses, the impact of the spatial scale in icon engagement highlighted the ambiguities of these overlapping, whereby the use of icons that are distant from the everyday life and locality of individuals can actually be "not engaging", emphasising a kind of "global perspective" which can be overwhelming and also produce bleak feelings about the future, due to the difficulty for the individual to exercise any control over the subject depicted. At the same time, however, for other categories of the public, the globality of the icon and the spatial distance can be more engaging than a local icon if they refer to "strong pragmatic or intangible engagement" (O'Neill, 2008, pp. 208-209).

Furthermore, a graphic explanation of this kind, which deliberately exaggerates the effects of the melting of ice sheets, with a radical change in habitats and consequent unusual encounters between animal species which usually live very far apart, reiterates the iconic significance of the polar bear as being endowed with great metonymic power, re-proposing all the various elements that make up the description of climate change and the environmental framework proper to the Anthropocene.

¹⁵<https://www.theguardian.com/environment/gallery/2007/oct/25/wildlife.photography> (last access: September 11, 2024).

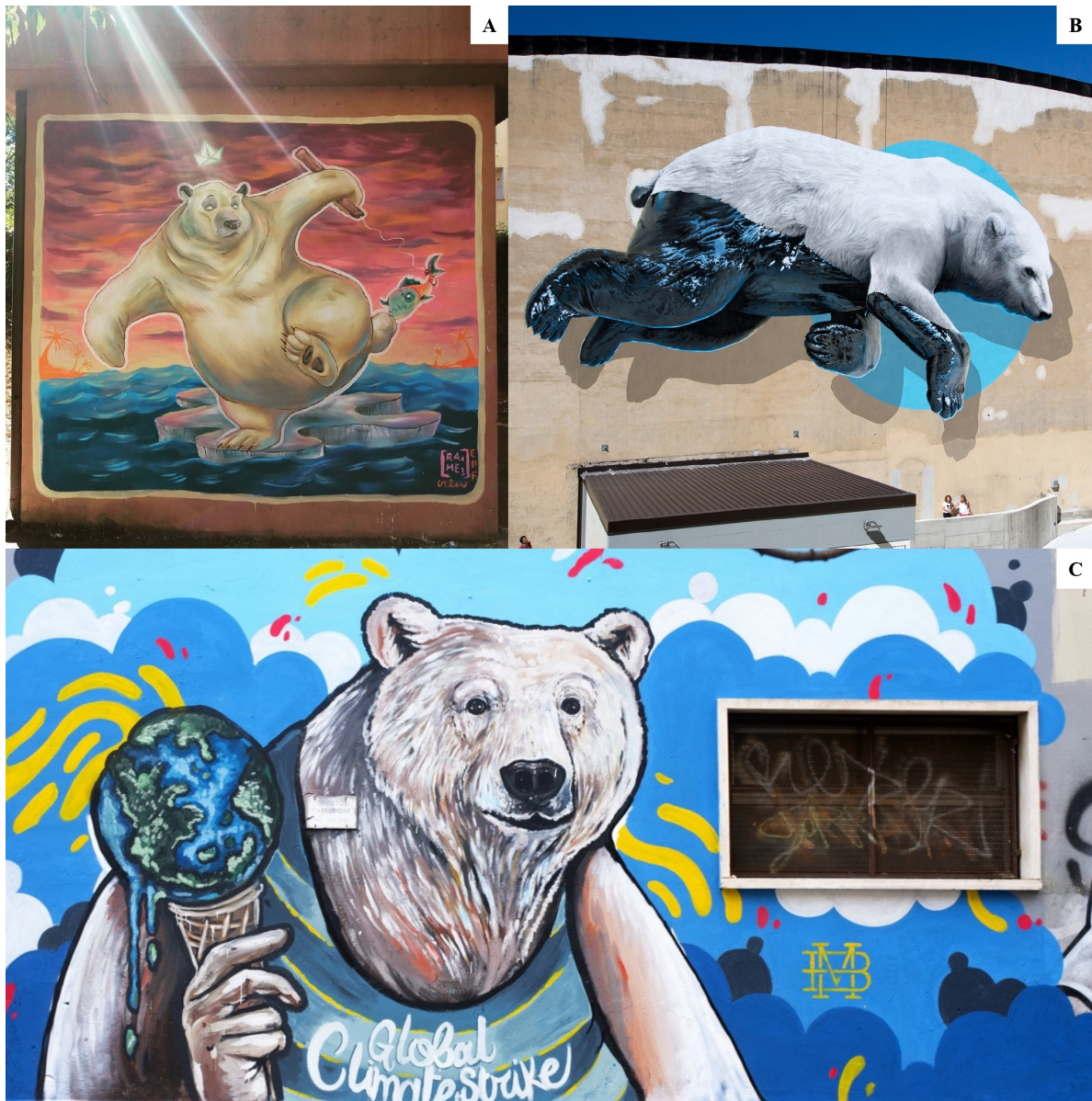


Figure 3. A) Rame13 (2017), “Cambiamenti climatici e-distribuzione”, Orvieto, <https://www.instagram.com/p/BX481GLh4U3/>. B) Nevercrew (2015), “Black machine”, Turin, <https://nevercrew.com/black-machine>. C) Matteo Brogi (2019), “Global Strike”, Rome, <https://www.lifegate.it/global-strike-murales-roma-airlite>.

Once again, and specifically with regard to the British public, in some workshops O’Neill noted “disparity in perceptions of polar bears as either an engaging or disengaging climate icon”, for which the interviewees considered the polar bear one of the least relevant icons in the spectrum of categories from the personal to the global level but, at the same time, a large number of participants considered it “the icon to which they were most drawn to” (O’Neill, 2008, p. 201).

In any case, polar bear murals proliferate on Italian walls together with related remediations in the form of images and communications that aim to raise awareness of the effects of climate change on large web aggregators and social media. In 2015, in Turin, the Nevercrew duo created “Black Machine” in the San Salvario district, a mural depicting an enormous swimming bear half covered in oil (Figure 3B).



Figure 4. A) Mate (2017), “Polar”, Milan, <https://www.pinterest.it/pin/810718370397271331/>. B) ViM (2022), n.a., Milan, <https://www.facebook.com/photo/?fbid=3309466829369424&set=a.1690250064624450>. C) Prosa Bang and Poms (2021), n.a., Buccinasco (Milan), <https://www.wrts.it/2021/06/05/save-the-planet/>.

In Rome, in the San Lorenzo district, in the aftermath of the Global Strike for Future in March 2019, a white bear appeared intent on eating ice cream with an earth-shaped scoop, an ecological work for which the artist Matteo Brogi used Airlite paint (Figure 3C). On the other hand, “Polar” is a mural in Milan, created in 2017 by Mate, featuring a roaring polar bear presented in the national press as “a cry of alarm that highlights the devastating implications of climate change”¹⁶ (Figure 4A).

Another situation is portrayed by ViM in the centre of Milan’s San Siro district, with a gigantic polar bear swimming to avoid drowning in a column of seawater (Figure 4B). Finally, in Buccinasco (Milan), Prosa Bang and Poms have also recently created a mural, again on the walls of a distribution substation, depicting a family of polar bears in a hot desert landscape, huddled, here too, beneath a fiery sky (Figure 4C). On the official webpage of the local town council, we read how the “Save the Planet” label accompanying the work aims to “involve citizens in the importance of environmental protection and the safeguarding of animal species that risk extinction”¹⁷. But there are countless other examples which could be cited.

5. Final remarks

This contribution aimed to explore how muralism as an art form can promote greater awareness of environmental issues in Italy and how specific symbolic animals depicted in murals have become visual icons in shaping the image of marine and ocean conservation. This aspect has rarely been addressed in the field of geography. Previous studies have tended to focus on art festivals as tools for revitalizing spaces. At the same time, research on murals as a form of communication has tended to ignore their role in conveying environmental issues.

The present analysis reveals several key insights, beginning with the observation that the

practice of neo-muralism has encountered criticism for various reasons. The art world accuses it of moving away from the illegal nature of street art and adapting to fashions, rules, and the market (De Innocentis, 2017), and of being focused on an aesthetic of pure ornamentation and beautification (Schacter, 2014). Actually, some murals still do emerge spontaneously, such as Mate’s mural in Milan (Figure 4A). Other aspects are related to geographical issues (see, for instance: Mathews, 2010; Schacter, 2014; Bengtsen, 2020). In processes of urban regeneration, there is often a risk of gentrification in particularly sensitive areas, leading to rising living costs for residents and a subsequent decline in their quality of life. These interventions may also end up being disconnected from the local social fabric, lacking the support of the communities directly affected. Other problems can arise when such projects are used as a smokescreen by institutions so as to avoid addressing bigger issues and providing the services residents really need to improve their lives. Furthermore, when sponsors are involved, there is always the potential for greenwashing, i.e. where companies in highly polluting industries portray themselves as champions of sustainability by sponsoring murals painted with eco-friendly materials (Richardson, 2020). Despite these criticisms, neo-muralism can help to upgrade city environments and offer people more pleasant spaces (Gianquitto, 2019). Moreover, some festivals emerge from the bottom, adopting participatory and multidisciplinary approaches (i.e. “Climate Art Project” or “Systema Naturæ”) and often incorporating workshops in local schools. In these instances, the initiatives go beyond merely beautifying neighbourhoods and manage to foster precious dialogues between and among educational institutions, scientific organizations, environmental associations, and the communities themselves. They promote art-based educational processes that actively engage youngsters of all ages. When well implemented in the classroom, these approaches give learners the tools with which to question, analyse, and interpret information, fostering a critical understanding (Roberts, 2017) of how issues related to the sea and oceans are constructed and represented.

¹⁶ <https://vivimilano.corriere.it/monumenti-e-musei/polar-murales-di-mate-in-via-schievano/> (last access: September 11, 2024).

¹⁷ <https://www.comune.buccinasco.mi.it/it/news/arte-e-ambiente-sulla-cabina-e-distribuzione-di-buc> (last access: September 11, 2024).



Figure 5. Rame13 (2020), “La zattera della balena”, Helsinki, <https://www.giovanartisti.it/artista/rame13art/la-zattera-della-balena>.

Moving on to the specific role of murals, within the framework of ecocritical geopolitics (Dell’Agnese, 2021), they can be understood as an expressive form of popular culture, which can become a tool for producing and disseminating environmental discourse. These murals are an excellent example of “eco-cultural activism”, defined by Iovino (2006) as a movement and militant critique in which culture becomes a tool for sharpening our awareness of life and change in contemporary society. As shown in all the examples given above, street artists are not just as artists, but are ideologists too (Hirschman, 1983; Visconti et al., 2010), expressing their subjective conceptions of beauty, fear, and emotion, and formulating values about seascapes and nature in general. The flagship species which they exhibit in their artworks are transformed into ethical and moral subjects to be seen as “spokesbeings” for a paradigm shift (Iovino, 2017). The whales and polar bears we see in murals, not only on the streets but also through dissemination on social networks, become an instrument for society’s self-awareness of today’s issues. A further example that merges both icons is the 2020 mural by the aforementioned Italian artist Rame13 for the Concrete Helsinki Urban Art Festival. The whale, acting as a raft, is carrying a whole series of animals on its back, including a polar bear, all fleeing from the melting glaciers (Figure 5).

Despite increased awareness about environmental issues, “in contemporary societies, few animals arouse emotions, compassions, and political turmoil” (Blok, 2007, p. 66) as do whales and polar bears. As O’Neill (2022, p. 1116) has pointed out, having become visual metonyms, their images bring us face to face with that “multitude of competing values, attitudes, and worldviews” that are involved in the issue of climate change. Indeed, this density of ideas becomes concentrated into single icons, which risk attracting criticism, producing counterproductive effects, or becoming an oversimplification. The protagonists of the murals, the flagship animals, manage to capture the public’s attention to the point of generating popular support for conservation actions. The “aesthetic charisma” (Lorimer, 2007 pp. 918-921) of certain species triggers emotions in humans, catalysing individuals’ ethical sensibilities towards these particular animals but sometimes overshadowing the conservation of other ones. Moreover, with regard to the human-induced changes in the Anthropocene era, symbolic animals often embody plastic problems, oil pollution, and melting glaciers, and leave out other, less visible effects such as eutrophication, microplastics, noise pollution, etc.

Another issue is that using whales and polar bears in Italy to enhance awareness of global

environmental issues re-proposes a pattern of icons which is admittedly somewhat removed from everyday Italian life and the local context. This model of environmentalism was described by Katz as being “centred on the emotional appeal of the ‘charismatic megafauna’ in faraway places” (Katz, 1998, p. 51). However, from the communications point of view, the Anthropocene formula must be seen as one of the most important ways of making it possible to superimpose different geographical plans in a comprehensible way. In this specific context, the most obvious effect is to cancel out the distance and involve all human beings, in general, in the root causes of distress situations of non-human animals, even when these inhabit remote spaces of the planet. At the same time, the trust shown by many authors in the image of whales and polar bear represents a very advanced phase in the moral circle explosion (Sebo, forthcoming) whereby in the present day, moral considerations on the part of human beings have gradually been extended not only to include living beings not previously included, but also to include creatures that inhabit remote areas never visited by the vast majority of the public on the receiving end

of this kind of message, and who therefore have never had any direct contact with them. Furthermore, in recognition of the pervasiveness of the impact of human activities on the environment, the insertion of the figure of the whale and the polar bear into the global environmental discourse can also be seen as an effect of that potential “end of wildness” according to which no animal can be regarded as completely wild anymore, since all of them are in some way captive, once their behaviour shows the effects of being conditioned by the presence of human activities (Sebo, 2023, p. 67). Ultimately, in addition to these systematic and geographical expansions of the moral circle, we should also bear in mind the other anthropocentric risks inherent to this type of communication, i.e., those possible readings according to which raising awareness about protecting the habitats of other living beings is actually instrumental in protecting the broader context – the environment in which we live as human beings – but pushes into the distance the consequences of those daily actions which influence the state of the planet.

Acknowledgements

Stefania Benetti wrote paragraphs 1, 2, and 3, Giovanni Modaffari wrote paragraph 4, and both authors wrote paragraph 5. The research conducted by Giovanni Modaffari was made possible by the Biodiverse Anthropocenes (supported by the University of Oulu Research Council of Finland, PROF16 – project number 336449).

References

1. Abel J., “The Ambivalence of Whaling: Conflicting Cultures in Identity Formation”, in Pflugfelder G. M. and Walker B. L. (Eds.), *Japanimals: History and Culture in Japan’s Animal Life*, Michigan, Center for Japanese Studies, 2005, pp. 314-341.
2. Adkins F., “Why polar bears are no longer the poster image of climate change”, 14th November 2023, <https://www.bbc.com/future/article/20231113-climate-change-why-photos-of-polar-bears-dont-work#> (last access: 21/3/2024).
3. Amato F., “Il lungo dialogo tra arte e geografia. Il paesaggio urbano in trasformazione: i murales nei quartieri disagiati di Napoli”, *Estetica. Studi e ricerche*, 2, 2015, pp. 7-17.
4. Andresen S., “Whaling: peace at home, war abroad”, *International Regimes and Norway’s Environmental Policy*, 2004, pp. 41-63.
5. Armstrong P., “The postcolonial animal”, *Society & Animals*, 10, 4, 2002, pp. 413-419.
6. Barua M., Gurdak D. J., Ahmed R. A. and Tamuly J., “Selecting flagships for invertebrate conservation”, *Biodiversity and Conservation*, 21, 2012, pp. 1457-1476.
7. Bengtsen P., *Street Art World*, Lund, Alemendros de Granada Press, 2014.
8. Bengtsen P., “The monetization of the street art world and the fossilization of urban

- public space”, *Visual Inquiry: Learning & Teaching Art*, 9, 1-2, 2020, pp. 45-58.
9. Blanché U., “Street Art and related terms”, *SAUC-Street Art and Urban Creativity*, 1, 1, 2015, pp. 32-39.
 10. Blok A., “Actor-networking ceta-sociality, or, what is sociological about contemporary whales?”, *Distinktion: Scandinavian Journal of Social Theory*, 8, 2, 2007, pp. 65-89.
 11. Bowen G.A., “Document Analysis as a Qualitative Research Method”, *Qualitative Research Journal*, 9, 2, 2009, pp. 27-40.
 12. Breitburg D., Levin L.A., Oschlies A., Grégoire M., Chavez F.P., Conley D.J. and Zhang J., “Declining oxygen in the global ocean and coastal waters”, *Science*, 359, 6371, 2018.
 13. Carillo G., “Lo spettacolare murales di Torino contro l’inquinamento dei mari”, *GreenMe*, 2018. <https://www.greenme.it/lifestyle/arte-e-cultura/torino-murales-balena-rifiuti/> (last access: 29/3/2024).
 14. Cosgrove D., *Social formation and symbolic landscape*, Madison, The Wisconsin University Press, 1984.
 15. Crutzen P.J. and Stoermer E.F., “The ‘Anthropocene’”, *Global Change Newsletter*, 41, 2000, pp. 17-18.
 16. Danaher M., “Why Japan will not give up whaling”, *Pacifica Review: Peace, security & global change*, 14, 2, 2002, pp. 105-120.
 17. De Innocentis I., *Urban Lives. Viaggio alla scoperta della street art in Italia*, Palermo, Dario Flaccovio, 2017.
 18. Dell’Agnese E., *Ecocritical Geopolitics: Popular culture and environmental discourse*, London-New York, Routledge, 2021.
 19. Doney S.C., Ruckelshaus M., Emmett Duffy J., Barry J.P., Chan F., English C.A. and Talley L.D., “Climate change impacts on marine ecosystems”, *Annual review of marine science*, 4, 2012, pp. 11-37.
 20. Dumont I., *Tatuare la città. Per un’analisi geografica dell’arte urbana nello spazio pubblico*, Rome, Società Geografica Italiana, 2024.
 21. Farrelly T.A., Borrelle S.B. and Fuller S., “The Strengths and Weaknesses of Pacific Islands Plastic Pollution Policy Frameworks”, *Sustainability*, 13, 3, 1252, 2021.
 22. Franklin A., *Animals and modern cultures: A sociology of human-animal relations in modernity*, London, SAGE Publications, 1999.
 23. GESAMP, (IMCO/FAO/UNESCO/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on Scientific Aspects of Marine Pollution), *Scientific Criteria for the Selection of Waste Disposal Sites at Sea*, Reports and Studies No.16, London, Inter-Governmental Maritime Consultative Organization, 1982.
 24. Gianquitto M., *Graffitismo & Street art*, Missaglia (LC), Bellavite, 2019.
 25. Gouletquer P., Gros P., Boeuf G. and Weber J., *Biodiversity in the marine environment. Springer Science & Business Media*, Netherlands, Springer, 2014.
 26. Greenfield P., “Why it may be time to stop using the polar bear as a symbol of the climate crisis”, 30th August 2023. <https://www.theguardian.com/environment/2023/aug/30/why-it-may-be-time-to-stop-using-the-polar-bear-as-a-symbol-of-the-climate-crisis> (last access: 21/3/2024).
 27. Guinard P. and Molina G., “Urban geography of arts: The co-production of arts and cities”, *Cities*, 77, 2018, pp. 1-7.
 28. Hawkins H., “Dialogues and doings: Sketching the relationships between geography and art”, *Geography Compass*, 5, 7, 2011, pp. 464-478.
 29. Hawkins H., “Geography and art. An expanding field: Site, the body and practice”, *Progress in Human Geography*, 37, 1, 2013, pp. 52-71.
 30. Hirschman E.C., “Aesthetics, Ideologies, and the Limits of the Marketing Concept”, *Journal of Marketing*, 47, 1983, pp. 45-55.
 31. Iovino S., *Ecologia letteraria. Una strategia di sopravvivenza*, Milan, Edizioni Ambiente, 2006.
 32. Iovino S., “Utili strumenti per pensare l’impensabile. Le environmental humanities e le narrative della crisi ecologica”, *Culture della Sostenibilità*, 20, 2, 2017, pp. 10-22.
 33. Iovino G., “Is the street art a driver for tourist valorisation of marginal urban

- contexts? The experience of Naples”, *GeoProgress Journal*, 6, 2, 2019, pp. 79-100.
34. Islam M.S. and Tanaka M., “Impacts of pollution on coastal and marine ecosystems including coastal and marine fisheries and approach for management: a review and synthesis”, *Marine pollution bulletin*, 48, 7-8, 2004, pp. 624-649.
 35. Jepson P. and Barua M., “A theory of flagship species action”, *Conservation and Society*, 13, 1, 2015, pp. 95-104.
 36. Katz C., “Whose nature, whose culture? Private productions of space and the preservation of nature”, In Braun B. and Castree N. (Eds.), *Remaking reality: Nature at the millennium*, London-New York, Routledge, pp. 46-63, 1998.
 37. Kerber H. and Kramm J., “From laissez-faire to action? Exploring perceptions of plastic pollution and impetus for action. Insights from Phu Quoc Island”, *Marine Policy*, 137, 104924, 2022.
 38. Lebreton L., “The status and fate of oceanic garbage patches”, *Nature Reviews Earth & Environment*, 3, 11, 2022, pp. 730-732.
 39. Lefebvre H., *Le droit à la ville*, Paris, Anthropos, 1968.
 40. Lo Presti C., “Art and public space. The case of street poems in Florence”, *Rivista Geografica Italiana*, 123, 3, 2016, pp. 401-416.
 41. Lorimer J., “Nonhuman charisma”, *Environment and Planning D: Society and Space*, 25, 5, 2007, pp. 911-932.
 42. Mastroianni R. (Ed.), *Toward 2030. L'arte urbana per lo sviluppo sostenibile. Fotografie di Martha Cooper*, Milan, Feltrinelli, 2019.
 43. Mathews V., “Aestheticizing space: art, gentrification and the city”, *Geography Compass*, 4, 6, 2010, pp. 660-675.
 44. Mela S., “Arte pubblica e rigenerazione urbana: il caso del quartiere Aurora a Torino”, *Fuori Luogo. Rivista di Sociologia del Territorio, Turismo, Tecnologia*, 9, 1, 2021, pp. 161-173.
 45. O'Neill S., “An iconic approach to representing climate change”, PhD Thesis, University of East Anglia Department of Environmental Sciences, 2008.
 46. O'Neill S., “Defining a visual metonym: A hauntological study of polar bear imagery in climate communication”, *Transactions of the Institute of British Geographers*, 47, 4, 2022, pp. 1104-1119.
 47. O'Neill S. and Nicholson-Cole S., “‘Fear Won't Do It': Promoting positive engagement with climate change through visual and iconic representations”, *Science Communication*, 30, 3, 2009, pp. 355-379.
 48. Pavlidou A., Giani M. and Yakushev E.V., “Interaction between climate change and anthropogenic pressures in the eutrophication process (Vol. II)”, *Frontiers in Marine Science*, 11, 1399298, 2024.
 49. Perlmutter D., *Photojournalism and foreign policy: Icons of outrage in international crises*, Westport, Praeger Series in Political Communication, 1998.
 50. Peterson M.J., “Whalers, cetologists, environmentalists, and the international management of whaling”, *International Organization*, 46, 1, 1992, pp. 147-186.
 51. Privitera D., “Eventi urbani e spazio pubblico. Il festival di street art tra territorialità e globalità”, *Memorie geografiche*, 15, 2017, pp. 327-333.
 52. Richardson B.J., “Art and activism in transnational environmental governance”, in Heyvaert V. and Duvic-Paoli L.A. (Eds.), *Research Handbook on Transnational Environmental Law*, Cheltenham & Northampton, Edward Elgar Publishing, 2020, pp. 248-266.
 53. Riggle N.A., “Street art: The transfiguration of the commonplaces”, *The Journal of Aesthetics and Art Criticism*, 68, 3, 2010, pp. 243-257.
 54. Roberts M., “Geographical education is powerful if...”, *Teaching geography*, 42, 1, 2017, pp. 6-9.
 55. Rose G., *Visual Methodologies: An Introduction to Researching with Visual Materials*, London-Thousand Oaks-New Delhi, Sage, 2012.
 56. Schacter R., “The ugly truth: Street art, graffiti and the creative city”, *Art & the Public Sphere*, 3, 2, 2014, pp. 161-176.
 57. Sebo J., “Wild animals”, in Hale B., *Light*

- A. and Lawhon L.A. (Eds.), *The Routledge Companion to Environmental Ethics*, New York, Routledge, 2023, pp.63-71.
58. Sebo J., “Moral circle explosion”, in Copp D., Rosati C. and Rulli T. (Eds.), *The Oxford Handbook of Normative Ethics*, Oxford, Oxford University Press, forthcoming (draft: <https://jeffsebodotnet.files.wordpress.com/2022/09/jeff-sebo-moral-circle-explosion.pdf>).
59. Simberloff D., “Flagships, umbrellas and keystones: is single species management passé in the landscape era?”, *Biological Conservation*, 83, 1998, pp. 247-257.
60. Suaria G., Avio C.G., Mineo A., Lattin G.L., Magaldi M.G., Belmonte G., Moore C.J., Regoli F. and Aliani S., “The Mediterranean Plastic Soup: synthetic polymers in Mediterranean surface waters”, *Scientific reports*, 6, 1, 37551, 2016, pp. 1-10.
61. Visconti L.M., Sherry Jr J.F., Borghini S. and Anderson L., “Street art, sweet art? Reclaiming the ‘public’ in public place”, *Journal of consumer research*, 37, 3, 2010, pp. 511-529.
62. Witze A., “It’s final: the Anthropocene is not an epoch, despite protest over vote”, *Nature*, 2024, <https://www.nature.com/articles/d41586-024-00868-1> (last access: 29/3/2024).