

# *Biston Betularia Carbonaria* Repopulating Maps with Climate Monsters

Antonio Ianniello

La Sapienza Università di Roma, Italia

**Abstract** The monster appears in geographical texts throughout the ages as a ‘guardian of the border’ that defines the limits of the possible, inducing action or averting behaviour and restricting movement for political or economic purposes. Through a philosophy that uses unorthodox means, I intend to present a climate monster by which, based on a possible imagery about the current climate crisis, an invitation for a change in our habits is produced. I propose that repopulating maps with situated imaginary monsters can deploy specific education of attention that invites focusing on concrete aspects of our surroundings. To do this I will present the mixed media art project *Biston betularia carbonaria*, an eco-dystopia created in collaboration with the photographer Valeria Scrilatti.

**Keywords** Monsters. Maps. Eco-dystopia. Climate change. *Biston betularia carbonaria*.

**Summary** 1 Art, Cartography, and Climate Change. –2 Monsters and Borders. –3 Monstrous Education of Attention. –4 Globes, Maps, and Zombies. –5 *Biston Betularia Carbonaria*: Experimenting with an Unorthodox Philosophy to ‘Summon’ Climate Monsters. –6 Globalgothic: All Roads are the Same.



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## 1 Art, Cartography, and Climate Change

Remember now, my Love, what piteous thing  
We saw on a summer's gracious day:  
By the roadside a hideous carrion, quivering  
On a clean bed of pebbly clay,  
Her legs flexed in the air like a courtesan,  
Burning and sweating venomously,  
Calmly exposed its belly, ironic and wan,  
Clamorous with foul ecstasy.  
Charles Baudelaire, *A Carillon*  
(Allen Tate's transl.)

"Would you tell me, please, which way I ought  
to go from here?"  
"That depends a good deal on where you want  
to get to," said the Cat.  
"I don't much care where—" said Alice.  
"Then it doesn't matter which way you go,"  
said the Cat.  
"—so long as I get somewhere," Alice added  
as an explanation.  
"Oh, you're sure to do that," said the Cat,  
"if you only walk long enough."  
Lewis Carroll, *Alice's Adventures in Wonderland*

This proposal is situated within the framework of the philosophy of the embodied mind, experimented here with unorthodox means, that is, not usually used in academia. Specifically, through mixed-media artwork, I will use the figure of the monster in relation to the cartographic medium to develop reflective and imaginative processes in favour of the environment.

Cartographers have always operated at the intersection of art and science (Ribeiro, Caquard 2018). In Ancient Greece, cartographers were influenced by scientific procedures based on geometry and astronomy (Brotton 2014). Western medieval maps used artistic techniques to reinforce religious and mythical beliefs about the world (Zumthor 1993). During the Renaissance, maps played a key role in the purposes of exploration and colonization, and it was in that context, according to Denis Wood (2010), that modern Western cartography would be born, that is, during the period when nation-states and formal sciences in the academies were becoming established. Parallel to a scientific-functional shift in cartography, artistic practices began to make increasing use of maps. Exemplary in this regard is the work of Jan Vermeer, who, beyond his paradigmatic *The Geographer* (1669), in which the subject is a scholar immersed in his research, manifests throughout his production a genuine obsession with cartography.

When there were no more spaces to explore in the early 1900s, artists' interest became focused on unveiling the political power of maps, and on imagining new and alternative ways of orienting oneself

in space and visualizing it. Wood calls this new approach “map art” (2010), which can be defined as mapping enacted by artists to challenge conventional cartographic practices. Central in this sense is the experience of first the Dadaists and Surrealists, and then the Situationists.

In Paris, on 14 April 1921, the Dadaists met in front of the church of Saint-Julien-le-Pauvre. From there began the first of a series of urban excursions to ‘banal’ places in the city. This was the inauguration of a series of experimentations that over the twentieth century have from time to time taken on specific characteristics defined by terms such as ‘visits’, ‘deambulations’, and *dérive*. The Dadaists with their visits that took them to insult places in the city, in addition to producing a desecration of the idea of art, enacted an absurd and anti-modern wandering in the footsteps of the Parisian *flâneur*. With surrealist deambulations, on the other hand, the aim was, through a state of loss of control and hypnosis, to reveal the unconscious zones and the ‘repressed’ of a territory. Also on the Surrealist side, the experimentation related to alternative ways of crossing and visualizing territory takes the emblematic form of *Le monde au temps des Surréalistes* in which nothing is described in the usual ways, every aspect is distorted and difficult to recognize. Realized by Paul Éluard, one of the founders of Surrealism, and published in a special edition of the Belgian Surrealist magazine “Variétés. Le Surréalisme en 1929”, it was intended to challenge the imperialist and Eurocentric representation of the world (Wood 2010). Another example is the *Inverted Map of South America* (1936) by a former member of the Surrealist movement the Uruguayan artist Joaquín Torres-García who precisely developed a map turned upside down from cartographic standards. The purpose was first to question the practice of placing the South at the bottom of any map as opposed to the North positioned in a dominant position that defined a hierarchical relationship. Second, it was intended to support the idea that cartographic art and processes should be created from the bottom up.

The practices pioneered by the Dadaists and Surrealists would be systematized by first the Letterists and then the Situationists in the mid to late 1950s. A key term for the Situationists is *dérive* which stands for a walk with a playful and collective character without a defined itinerary characterized, however, by precise rules. Through such ludic exploration, it is possible to free oneself from habitual orientation procedures and enact *détournements* i.e. subversions and reversals. The psychogeographic practice is thus defined: according to Situationists, through it can be explored the potentially imaginative relationship between individual behaviour and urban space. It is precisely from this notion that two emblematic maps are made by Guy Debord, a pivotal figure in the movement. In 1957 is the first real Situationist psychogeographic map, *La Guide psychogéographique de Paris*

designed to be distributed to tourists who were invited to get lost. In this guide Paris is divided into pieces and connected by arrows based on psychogeographic surveys, that is, the city is reimagined from subjective experience, as a result of the psychic effects that the urban context causes on the individual. Also from 1957 is *Naked City*, which takes the form of a collage in which Paris is reassembled through unusual routes in a chaotic manner, stripped of utilitarian grids: through psychogeographical *dérive* the Situationists naked the city and playfully reimagined the territory (Pinder 1996; Corner 1999).

Situationism occupies an eminent position regarding explorations of the relationship between art and cartography in the context of the twentieth century and has strongly influenced several contemporary art practices guided by similar activist agendas (Kvas 2014). Just think, as we shall see in a moment, of the influence it managed to exert in the following century on Locative Art, which operating within and in opposition to Media Art is particularly concerned with mapping and processes of questioning everyday orientation.

At the turn of the twenty-first century, the transdisciplinary dialogue between artists, scientists, and cartographers has further intensified. If we want to identify some key moments to indicate the beginning of a renewed interest in cartographic issues, we should first refer to the 1990s when the U.S. government liberalized GPS signals, and to 2005 when Google introduced its GeoTools - Google Maps and Street View - and Apple launched the 3D iPhone through which geospatial data could be used. From now on, digital cartography can be explored and manipulated by users through informatic devices that will become more and more widespread as the years go by. This means that data and images are available to anyone and provide material for critical and creative experimentation.

Many artists, moving from the field of so-called New Media Art or Net Art - a genre that includes artworks designed and produced employing multimedia technologies -, have used the cartographic medium to investigate processes related to globalization, climate change, pollution, migration, surveillance or the acquisition and use of biometric data. Particularly interesting in this regard is the so-called Locative Art, in which location-based mobile technologies for satellite tracking and navigation services are employed. Locative Art that arose in the early years of the new millennium, while emerging in the context of New Media Art, stands in opposition to it in that it challenges the disembodied, screen-based experience that the latter promotes. Locative Art's emphasis is on the reappropriation of space through active intervention and exploration of territory. New practices related to Locative Art emphasize the possibility for the user to actively enter the chain of networked connections and thus the cultural production of the systemic device. The main purpose is to question the techniques of viewing, filming, and tracking and their impact on everyday practices.

Within this subgenre operate collectives such as Social Fiction, Blast Theory, and Proboscis, and artists like Christian Nold, Teri Rueb, Masaki Fujihata, Stephen Wilson, and Jeremy Wood. Emblematic in its simplicity is a project by the art collective Social Fiction entitled *.walk* (dot-walk) awarded at the 2004 Transmediale media-arts festival in Berlin. *.walk* combined computer code and urban exploration in which participants left the gallery to follow a randomly generated path through the city. Such a project emblematically enacts the main instance of locative art, which consists of leaving deputed places, detaching oneself from the screen, and actively exploring the city to remap it.

Locative Art encompasses a range of heterogeneous practices with ubiquitous manifestations. Such practices may operate at the boundary of data art - in which is data, and in this case, geodata, that is employed as the material of the work -, or they may be enacted to develop georeferenced digital storytelling in which Google Street View images are used, or they can be employed to bring geofiction to life in which new maps are manipulated and created, or they can be put in place to develop deep mapping processes in which a wide range of geographical information from fiction, art, stories, and memories associated with places is employed.

Following the general subdivision proposed by Marc Tuters and Kazys Varnelis in the essay *Beyond Locative Media* (2006), it is possible to distinguish within this subgenre between annotative and phenomenological mapping practices. This distinction is made based on the terms *détournement* and *dérive*, which are central to the explorations of Situationism, the inspirational movement of Locative Art. Annotative practices, which would inherit the subversive instances of *détournement*, are characterized by the fact that they add data to change the world - as we shall see, this is where *Biston betularia carbonaria*, the artwork presented here, stands. Phenomenological practices, on the other hand, are characterized by the fact that they aim to trace the subject's actions in the world. Adopting the mapping and wandering tactics of *dérive*, such practices invite the re-inhabitation of this world by escaping the utilitarian trajectories already established. Annotative projects have a strong demystifying charge, while tracking-based projects seek to use technology to stimulate highly underutilized everyday practices such as walking or occupying a public space.

The direct filiation with the avant-garde movements of the twentieth century is underscored by Tuters and Varnelis, who note how artists working within Locative Art insist "not only that their work is capable of creating a paradigmatic shift in the art world, but also that it can reconfigure our everyday life as well by renewing our sense of place in the world" (2006, 358).

One of the most pressing issues today for which we are actively called to reconfigure our lives and thus renew "our sense of place in

the world” is the current climate crisis. As the 2023 report of the Intergovernmental Panel on Climate Change (IPCC) shows, the last century has seen a global average temperature increase of 1.1°C compared to the pre-industrial period. The main cause is attributed to the use of fossil fuels, unsustainable energy practices, and land exploitation. This has led to an intensification in the frequency of extreme weather events such as floods, droughts, storms, and fires that threaten our survival and that of ecosystems. Associated with these scenarios are sociopolitical events related to climate migration, social polarization, inequality, and enhanced exposure to death of economically marginal populations. If global warming is to be limited so that it does not exceed the pre-industrial level of 1.5°C, ambitious actions must be taken now to cut greenhouse gas emissions by 2030. Remedies implemented so far to counter the climate crisis have been inadequate. Increasingly urgent is the call from many fronts for artists, researchers, and scientists to develop a dialogue and join forces with the aim of enacting effective interventions to bring about real change (Tsing et al. 2017; Kaaronen, Rietveld 2021). There are many practices in which artists operate based on environmental instances (Davis, Turpin 2015); given that cartography has always fostered encounters between artists and scientists, it seems to stand as a privileged place to enact the much-invoked dialogue. In this sense, practices related to Locative Art seem to allow very promising heterogeneous experimentations.

Particularly significant is the work of Natalie Jeremijenko, an artist and engineer with a background in biochemistry, physics, neuroscience, and precision engineering. Her work focuses first and foremost on exploring the relationship between society, environment, and technology. Consider, for example, *Amphibious Architecture*, a prototype created in 2009 by Natalie Jeremijenko’s Environmental Art Clinic at New York University in collaboration with Columbia University’s Living Architecture Lab, and then developed as public art at Glenorchy Art and Sculpture Park (GASP) in Australia. *Amphibious Architecture* is an interactive light array of 20 high-tech polycarbonate buoys that, through a sensing system, illuminates through coloured lights in the bay making visible dissolved oxygen levels in the water – which is an important indicator of estuarine health. In addition, more information can be acquired from visitors via SMS. The project, in this way, makes visible what is usually invisible. The *Amphibious Architecture*, by creating a poetic map of pollution levels, aims to promote a multi-layered dialogue between humans, fish, and their shared environment.

Another emblematic case, especially as part of a practice in which multiple disciplines intertwine to foster interventions that transcend the art world, is *Cloud Studies* created by the research centre Forensic Architecture. The collective, led by founder Eyal Weizman,

consists of architects, engineers, lawyers, and activists. Their work investigates space using video, archival images, and maps to produce and present spatial evidence within legal, political, and cultural contexts. In the video installation *Cloud Studies*, the collective, using numerous case studies, tries to bring to public attention data, images, and maps that account for how petrochemical emissions or forest fires infest the air that millions of people breathe. Originally produced for the exhibition *Critical Zones: Observatories for Earthly Policies* for the ZKM in Karlsruhe, the work has been presented in various exhibition spaces including the 12th Berlin Biennale.

An extremely significant other work is *A quiet desert failure*. The project was started in 2013 by artist Guido Segni, who programmed an Internet bot (a small program that automates the execution of actions to be performed on the web) that can take images of the Sahara Desert from Google Maps and post them on a Tumblr blog, one image every thirty minutes. The project will have to last at least 40 years. *A quiet desert failure*, in addition to mapping the progress of an otherwise invisible process, will show the inadequacy of the technological means used to develop it. This is because, in all likelihood, the technological means used will become obsolete within the time frame envisioned for the development of the work. *A quiet desert failure* highlights how, although technologies are becoming increasingly sophisticated, they may not be able to withstand climate upheaval.

## 2 Monsters and Borders

The presence of what is completely out-of-the-ordinary or more-than-natural manifests itself within our form of life through the figure of the monster that emerges in stories, dances, songs, and rituals in every age and every culture. The monster has held and still holds disparate functions. My purpose in this paper will be to experiment with its imaginative functioning within *Biston betularia carbonaria*, a mixed-media artwork created in collaboration with photographer Valeria Scrilatti and articulated from an eco-dystopia that uses the map medium as a site of exploration.

Thesis V of Jeffrey Cohen's seminal text *Monster Theory* argues that "the Monster polices the Borders of the Possible" (1996, 12). The monster is placed at the edge of our knowledge, on the margins of what we master, on the limit of what we can do, and beyond which we cannot venture. From that threshold, the monster "stands as a warning against exploration of its uncertain demesnes" (12).

Crossing the boundaries set by monsters can involve making ourselves vulnerable to their attacks or becoming monstrous ourselves. This is precisely the case of the first werewolf in Western literature, the Lycaon, king of Arcadia, who, as Ovid narrates in the

*Metamorphoses*, was guilty of violating the bond of trust that binds host and guest, first by trying to kill Jupiter while he was sleeping in his house, and then, the next day, serving him the body parts of a hostage as lunch. Jupiter then transformed Lycaon into what Cohen calls “a monstrous semblance of that lawless, godless state to which his actions would drag humanity back” (1990, 13). The king of Arcadia deprived of the use of speech began running through the fields howling and hurling himself at sheep to feed on their blood.

The same happens with its 1990s film version of John Landis’s *An American Werewolf in London*, where the main character David, fleeing and thus leaving his travelling companion John alone in the face of danger, is guilty of breaking the pact of friendship and rescue. David, having become a werewolf throughout the film, will embody the loneliness and social and emotional isolation that he has enacted.

As Cohen explains, there are monsters born of political expediency that prompt action, and monsters of prohibition that control boundaries and interdict certain behaviours (1990, 13). This is the paradigmatic case of medieval merchants who, to discourage certain routes with their potential trade and thus establish a monopoly, purposely spread maps dotted with the presence of sea snakes (13). The prototype of the “‘geographic’ monster” (14) in Western culture is represented by Homer’s Polyphemus. Cyclopes constitute the “quintessential xenophobic rendition of the foreign” (14); devoid of community, savages with atomized lives, they inhabited a space outside of civilization as ancient Greeks understood it. Cyclopes embodied the fear of losing one’s status as a human being: Greeks, educated within a deindividualizing society in which identity was determined by one’s function within a system, were terrified of being swallowed up by the monster of individuality, literally incorporated within a different form of life.





**Figure 1**

Valeria Scrilatti,  
*Biston betularia carbonaria*. 2023.  
Mixed Media Art project created  
by Antonio Ianniello  
and Valeria Scrilatti.  
Photos of several specimens  
of *Biston Betularia Carbonaria*  
taken from the natural history archives  
were used: [https://data.nhm.  
ac.uk/search](https://data.nhm.ac.uk/search).  
Through collage and postproduction,  
pieces of the best-preserved bodies  
of each specimen were cut out and then  
mounted together to create the moth

September 2025. A melanic form of peppered moth – *Biston betularia carbonaria* – on a charred birch trunk in Athens. *Biston betularia* is a lepidopteran moth widespread in Eurasia and North America that occurs in two main chromatisms: the white form (*typica*) and the melanic form (*carbonaria*), which has dark-colored wings instead. *Lepidoptera* comes from the Greek word ‘Lepis’ meaning ‘scale’, and it refers to the typical ‘fur’ that covers the body of moths, which is actually made up of thin scales made of chitin, a keratinous material that makes up the Arthropods’ exoskeleton.

The monsters we encounter today in popular mass culture have inherited, to some extent, the police function of respect for boundaries, characteristic of their ancestors. Such contemporary monsters, however, are alienated, that is, placed on the margins of everyday life, relegated to designated places where we are called upon to enjoy them, according to that division between imagination and reality that characterizes the modern age (Ingold 2022). Among the countless examples that embody this police role, albeit in some ways depowered, particularly emblematic is the case of Ron Underwood’s 1990 film *Tremors*. In this blockbuster movie, that later would spawn a famous franchise, some monsters – hungry giant earthworms – with their attacks, with their menacing looming over people’s lives, literally define a boundary by forcing the characters to stay within the perimeter of the fictional town of Perfection. Throughout the movie, the underground monsters, from time to time, force the characters to take refuge on a rock or, in one very emblematic scene, in a drugstore among consumer goods. In practice, the inhabitants of Perfection are prisoners of a perfection – a shared norm, a way of life – that has defined their relationship with the environment intended as a mere commodity-not coincidentally, the two protagonists after killing a monstrous

creature immediately sell its corpse for 15 dollars, a corpse that is then displayed in the village store to make a derisory profit. In the end, the need to confront these monstrous creatures will lead one of the protagonists, Val, to better observe his surroundings, that is, he will be able to move from not seeing to seeing, or from seeing to seeing more or seeing differently» (Noë 2015, XI). This has to do with what I will refer to throughout this paper as monstrous education of attention. The female main character, Rhonda, who was invisible to Val, becomes attractive to him at the end. The problem here, as indeed in other products of the American film industry – such as for example Steven Spielberg’s *Jurassic Park* in which the traditional family is threatened by prehistoric creatures but in the end the monsters succumb inexorably – is that in the closing scenes, when Val decides to declare himself to Rhonda, everyone returns to the perimeter of Perfection, thus re-establishing the initial *status quo*.

The monsters I will try to ‘summon’ in this paper are meant to challenge our practices and not to reassure us with the idea that sooner or later they will be defeated and everything will go back to the way it was, because the climate crisis we are experiencing will not let everything remain unchanged. This means that there will be no perimeter in which we can take refuge to console ourselves with the categories that have governed our form of life so far.



**Figure 2** Valeria Scrilatti, *Biston betularia carbonaria*. 2023. Mixed Media Art project created by Antonio Ianniello and Valeria Scrilatti. Collage of two archival photos later reworked in Photoshop

September 2025. Athens, having been incinerated by flames, is covered in melanic moths. The few residents who have not joined the Greek government's evacuation plans wander lonely through the deserted streets. They call themselves 'pilgrims' and wear long white robes to avoid being covered, like everything else, by the melanic moths. Because everything is black and indistinguishable, every sign obliterated, purged away by the fire, the haze and the moths's 'fur', the 'pilgrims' are only able to get their bearings because of the stories they sing aloud.

### 3 Monstrous Education of Attention

Both in antiquity and nowadays in popular culture, monsters respond – on different levels and with different results – to a warning function that often has to do with safeguarding physical, moral, or political boundaries. Etymology suggests that “‘monster’ derives from Latin *monstrum*, which is related to the verbs *monstrare* (‘show’ or ‘reveal’) and *monere* (‘warn’ or ‘portend’)” (Beal 2002, 6-7). The monster is a kind of omen indicating something ominous or threatening that populates one’s world (Asma 2009, 13). In short, following the etymology, the monster shows us something and, by showing what we have not seen before, warns us. In this sense, the monster can be linked to a specific form of “education of attention” (Gibson 1986, 254) where an imaginary being is used to foreground dangers that lay ahead that remain invisible by many in a community.

To better focus on what is meant here by the ‘education of attention’ we need to place this notion within the broader framework of James Gibson’s ecological psychology. To do so, I will refer to the way his teachings have been developed over the past few years within the philosophy of embodied mind by Erik Rietveld and colleagues or, on the side of anthropological studies, by Tim Ingold.

Gibson’s proposal revolves around the controversial and complex notion of ‘affordance’ which is meant the invitation the environment provides the animal with in order to act (Gibson 1986, 18-19). In an attempt to account for the rich landscape of possibilities that characterizes the human niche, philosophers Erik Rietveld and Julian Kiverstein provide an expanded version according to which an affordance is a relationship between an aspect of the sociomaterial environment and of the abilities available in a form of life (Rietveld, Kiverstein 2014). Affordances in this way are not relegated to the simple sensorimotor dimension but refer to the very rich repertoire of abilities we can acquire in our form of life.

Our contact with the sociomaterial environment occurs within the framework of practices in which we are educated. Such practices select for us aspects of the environment relevant to our interests and leave others ignored. In this sense we can speak of ‘education of attention’ (Gibson 1986; Ingold 2000). Anthropologist Tim Ingold, in developing this definition, offers an effective example in which he tells of a novice hunter who learns by being led into the woods by more experienced hands. The novice who finds himself/herself moving among undifferentiated foliage is led to develop a sensitivity to the qualities of surface texture, that is, a perceptual awareness of the properties of his surroundings and the possibilities for action they offer (Ingold 2000, 37). Based on ‘education of attention’ occurring within a determined practice each individual becomes skilled and thus selectively open to the rich landscape of affordances available to a form of life (Bruineberg, Rietveld 2014).

Even the so-called ‘higher’ cognitive capacities – such as imagination, memory, or reflection – can be understood as “skilful activities in practices and in terms of the material resources exploited in those practices” (Rietveld, Kiverstein 2014, 346). The skilled agent will be able to successfully engage not only with affordances that unfold over a short timespan but also with those indeterminate ones – like those related to the imaginative processes – that are enacted over long timescales (Van Dijk, Rietveld 2020). This means that imagination can be understood as a way of acting on an indeterminate invitation we coordinate with over a long time. Such coordination is actively enacted, and thus imaginative processes should not be understood as an idiosyncratic process, a fantasy that distances us from the real, but as an exploration of the sociomaterial environment that develops based on tangible invitations.

As Ingold states, considering imagination as something that happens in reality results in a more generous conception of both imagination and reality:

A more generous understanding of reality would admit to a world that is not already precipitated out, into fixed and final objects, but launched in ever-flowing currents of formation; a more generous understanding of imagination would allow it continually to overspill the limits of conceptualisation and representation, into unmapped realms of conscience and feeling. (Ingold 2022, 4)

To engage an imaginative process, with an artistic artefact for example, both in the position of activator of an artistic practice and of the one who continues its development as a user, means “setting existence loose amidst the flux of creation” (4).

Through an artwork presenting imaginary scenarios, I aim here to develop a monstrous education of attention that shows (*monstrare*) real though as yet unrealized threats in their full horrific potential (*monere*). Such education, as it will become clear in the last section, comes through the imaginative invitation to repopulate commonly used maps with a climatic monster so that our relationship to our surroundings and our usual orientation in space is deeply challenged.

Traditionally there have been two geographical principles that have determined the regions inhabited by monsters: the idea that monsters are the product of climate, and the idea that they are located at the ends of the Earth where it has an end (Van Duzer 2013). Through this contribution, I try to populate geographical space with monsters that are the product of climate change and that embody the possible end of the Earth, understood not as a spatial extremity but as the ultimate ending, the extinction, of its and our existence.

## 4 Globes, Maps, and Zombies

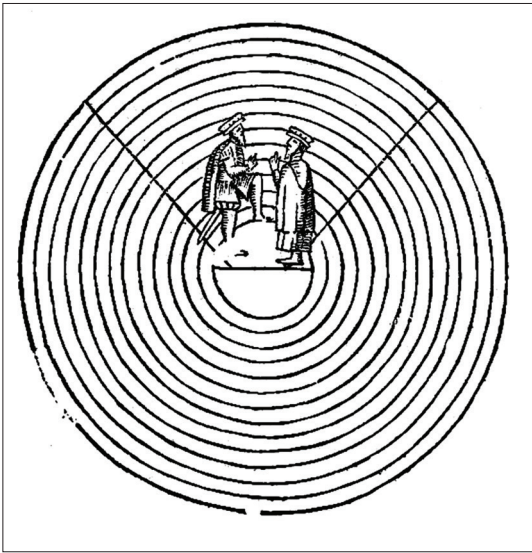
The most widely used tools today to orient ourselves in space are provided by the American multinational technology company Google, which offers online services and is involved in artificial intelligence, Internet advertising, and search engine technology; these are Google Earth and Google Maps, launched in 2005. Google Earth is a three-dimensional virtual globe that enacts a visual representation consisting of different types of images: “Indexical: satellite images. Iconic: road maps. Symbolic: nation-state boundaries” (Helmreich 2011, 1222). Google Maps is designed with a primarily practical purpose: it is an interactive map that gives us directions on road routes and provides details on the function of buildings. With the Street View functionality, portions of space can be explored through a more immersive experience. Google, to make this experience possible, uses a fleet of cars outfitted with a pole with 9 cameras at its top, which photograph their surroundings. Both Google Earth and Google Maps’s Street View make use of a technique known as ‘stitching’, which, through the manipulation and montage of different types of images, generates an effect of continuity.

There is an iconic image on Google Earth’s homepage, namely that of the blue planet suspended in space, that perfectly embodies what Ingold, in an article in which he contrasts the role of the sphere with that of the globe in the representation of the Earth, calls the “modern conception of the environment” (2000, 209), that is, the idea of a world that is no longer our home. The image of planet Earth as a distant and well-controlled globe from a position of privilege represents “the culmination of a process of separation” (209), in which the subject’s observational point is ideally shifted out of physical space. Ingold, in critiquing this illusory position and to account for our actual experience of exploring the lived world, which occurs gradually by successive steps, refers to the example of the fourteen spheres of the world, as drawn by Giovanni Camillo Maffei of Solofra in his *Scala Naturale* (Venice, 1564).

As Ingold suggests, what unfolds before the Count of Altavilla, ready under Maffei’s guidance to enter a new dimension of knowledge, is a world of meaning that, through an education of attention, that is, a process of sensory coordination, is gradually revealed to him.

In contrast, the globe suspended in space that Google’s platform presents to us stands on the assumption that “meaning does not lie in the relational context of the perceiver’s involvement in the world” (Ingold 2000, 213). In this sense then, knowledge would be gained not by directly engaging, in a practical way, with the heterogeneous invitations of the rich sociomaterial environment - invitations not reducible to the simple physical conformation of the landscape - not through the active exploration of an inhabited world, but through the





**Figure 3**  
The fourteen spheres of the world, as drawn by Giovanni Camillo Maffei of Solofra in his *Scala Naturale* (Venice, 1564). Giovanni's patron, the Count of Altavilla, is shown beginning his ascent through the spheres

detached and disembodied observation of a world that is simply occupied and dominated from above.

Zooming into Google Maps we find ourselves moving through the space represented again according to the same principles. Even in this case, the tool provides us with a map available to be traversed as a flat surface or as an uninhabited scenery. If we drew on our lived experience of the world and how we explore it, then we could develop representations of the places we inhabit not in a merely spatial sense. Thus, following Ingold again, in this case, dealing with maps, “places do not have locations but histories” (219). This means that places are linked together by the itineraries enacted by their inhabitants. The places then “exist not in space but as nodes in a matrix of movement” (219). Orientation skills consist of “the ability to situate one’s current position within the historical context of journeys previously made” (219). Ordinary orientation, therefore, more closely resembles the telling of a story than the use of a map.

The intention here is not to underdetermine the possibility of developing an understanding of space that transcends our current position. A vision that ‘gathers’ the manifold is allowed here as long as it is to be understood from not “everywhere-as-space” (227) that is, from a position that would contemplate the world from a point of view above and beyond, but from the “everywhere-as-region” (227) structured by narrative nodes. An ‘everywhere’ is therefore admissible as “a region concatenated by the place-to-place movements of humans, animals, spirits, winds, celestial bodies, and so on” (228), a relational ‘everywhere’ and not merely physical-spatial.

What I want to point out with this proposal is that the technologies we use today, by enacting principles that rest on the “modern conception of environment” (Ingold 2000, 209) and having expurgated monsters and spirits, that is, some particularly powerful narrative nodes that transcend individual paths and histories, configure maps as preconstituted stages that pre-exist our traversal, thus giving us the illusion that there can be an environment to explore beyond our collective movement in it, beyond the shared practices that constitute it. Our maps enact preformed places that remain waiting to be picked up by already given individual will.

Consider the experience that each person may have daily when looking for a place to go in his or her city, but whose location is not well known. Most likely we will go to Google Maps to search for the address and, to gather additional clues and references, we will use the Street View function. I want to draw attention here to how we can access this function: we pick up a human-like silhouette lying inert in a box as if immersed in cryosleep and, by dragging it with the cursor, crucially, rain it down from above into the place in question. This action we enact is extremely significant. The dormant being that represents us is led by our preconstituted interest through desert cities that neither transform it nor are transformed by its passage. Such an experience resembles in some ways that represented in George Romero’s 1979 film *Dawn of the Dead* in which zombies throng the escalators of shopping malls. This similarity rests on the fact that by using the Street View function, we drag a lifeless being through uninhabited places where activities and services are reported that relate first and foremost to our consumer dimension. The similarities do not end there. The word ‘zombie’ comes from the word *nzumbe*, which in the Kikongo language spoken in the Congo Basin means ‘god’ but also ‘spirit’ and ‘fetish’. That word was brought in by black slaves deported across the Atlantic to work on Caribbean plantations. The Haitian zombie was a voodoo-animated corpse that, unable to think, mechanically obeyed its master’s wishes. The figure of the zombie thus refers to one who, eradicated from his home and transported across the ocean, is catapulted into a completely foreign environment to act on behalf of someone else. The comparison between the zombie figure and exploration via Street View can take us even deeper into defining what such a representation of the environment conceals. The zombie, as an alienated slave, refers to the notion of the ‘Plantationocene’, which is a further name that has been given to the Anthropocene. The term ‘Anthropocene’ refers to the geological era characterized by the impact of human activities on the environment (Crutzer, Stroemer 2000; Crutzer 2002), which is made to begin, depending on the position, either with the appearance of agriculture in the Neolithic period, or with the beginning of the Industrial Revolution, or with the aftermath of World War II, or



with the explosion of the first atomic bomb. The ‘Plantationocene’ traces the beginning of profound anthropogenic transformation back to the time of plantations in which masses of alienated slaves were used to develop monocultures to which economic processes involving import-based trade systems, savage exploitation of the environment, and destruction of ecosystems and biodiversity were and still are linked (Haraway 2015; Haraway et al. 2016; Wolford 2021). ‘Plantationocene’ thus traces the true impact of humans on the environment to practices related to colonialism. This relates to the colonialist conception of the globe and the map referred to by Ingold (2000, 214) according to whom precisely a certain type of representation of the globe presents us with the idea of a “preformed surface *waiting to be occupied*” (214).

Ultimately, what I want to emphasize here is that the principles underlying the representation of globes and maps as offered by the Google platform and widely used today imply an alienated and zombified conception of the one who is called upon no longer to inhabit a place but merely to traverse its surface that is nothing more than a deeply foreign space to be occupied and exploited.

Through a philosophy that employs unorthodox means, I will introduce below *Biston betularia carbonaria* which, by presenting a map populated by monsters, embodies a paradoxical questioning of the map itself and thus of the principles that govern its “modern conception of the environment” (2000, 209).

*Biston betularia carbonaria* aims 1) to produce a warning for the consequences of behaviours that are harmful to our environment and 2) to question the media usually used to represent our environment that nurtures a certain distorted conception of it and an extractive relationship we have with it.

## **5 *Biston Betularia Carbonaria*: Experimenting with an Unorthodox Philosophy to ‘Summon’ Climate Monsters**

Philosophers usually write texts without images. In this article, I aim to experiment precisely with images to enact an unorthodox philosophy (Rietveld 2022). In this way, I intend to produce invitations that are not only related to reading and writing but that activate additional skills through cross-fertilization between different fields of research: the academic and the artistic.

From many sides within the philosophy of the embodied mind, it is argued that an alliance should be forged with visual artists to investigate «in a nonverbal way how we might live differently and perhaps better» (Rietveld 2022, 500). I suggest that such an approach would allow us to avoid the mistake that Victor Frankenstein makes

in exemplary fashion, namely, the mistake – further evidenced by his monster’s readings devoted to poetry and literature – of locking oneself away in the isolation of one’s study by engaging exclusively in one’s sectorial research that results in a rigidly moving robotic creature. The alliance experimented with here then constitutes an attempt to move away from the academic ivory tower and try to develop invitations that can tangibly reverberate to the practices in which we are engaged in everyday life.

The artwork *Biston betularia carbonaria*, presented below, is thus intended as a concrete model that aims to activate a monstrous process of attention of education directed at an embodied mind situated in a rich landscape of affordances. Through it we attempt to set a possible pro-environmental social change by imaginatively manipulating a widely used tool, the maps provided by the Google platform. This proposal tries to enact a shift in research practice and thus in the conception of the researcher “from a passive observer to an active and passionate designer” (Kaaronen, Rietveld 2021,1417). One of the questions we try to answer through *Biston betularia carbonaria* is: how do we, as a society and culture, as individuals part of the academic world afford sustainability? With *Biston betularia carbonaria*, an attempt is made to argue – not discursively but through visual means – that the disappearance of monsters, sprites, or ghosts from our lives has impoverished our experience of the world around us. Our culture, and our maps specifically, lack monsters understood as crossroads of meanings not reducible to the enactment of our individual paths. Here, through artwork that imaginatively proposes a monstrous repopulation of maps, it is certainly not intended to appeal to supernatural forces. Rather, it is intended to bring out the possibility of meaning-rich exploratory processes that can foster dynamic coordination with the environment and thus not reduce it to an inert matter.

*Biston betularia carbonaria* is a mixed-media artwork that through the form of eco-dystopia tells of a possible climate threat. It does so by narrating a near future in which violent fires will hit the city of Athens, Greece.

Eco-dystopia is a way to imagine the immediate or extreme consequences of our current relationship with the environment (Stock 2019, 2). Dystopia is a word composed of the Ancient Greek terms *δυσ-* (dys) which means bad, abnormal, and *τόπος* (topos) which stands for place. The first recorded use dates back to 1868 and is found in a parliamentary speech by John Stuart Mill, in which he proposed a term to define a perspective opposed to that of utopia. Utopia was usually understood as too beautiful to be practicable so dystopia was too ugly to be practicable (Claeys 2010, 107). Dystopia presents a future in which some aspects of our society found in the present have developed in extreme and undesirable ways. This places the storyteller

on a plane of temporal continuity with the society of the future - unlike the post-apocalyptic narrative in which the future is told based on a sharp break, a catastrophic event that has thrown humanity into a state of nature. Eco-dystopia, joining the predictive process of dystopia, reflects on a catastrophic event, climate change, caused by the daily behaviour of contemporary societies. In practice, through an eco-dystopia traits related to climate change present in our societies are exaggerated and thus allowed to emerge as relevant, that is, as solicitations for action, to refocus our attention on the prodromes of the horror that 'awaits' us.

Climate change, whose temporal and geographical scope is beyond our usual conceptual grasp, is determined by a concatenation of mostly invisible phenomena whose causal links are indiscernible and obscure except to a few experts. This makes climate change radically unrepresentable, that is, invisible to our eyes. It is possible to detect its extremely elusive face in heterogeneous phenomena that make their appearance in the form, in the case narrated here, of catastrophic fires, piles of ash, and swarms of moths.



**Figure 4** Valeria Scrilatti, *Biston betularia carbonaria*. 2023. Mixed Media Art project created by Antonio Ianniello and Valeria Scrilatti. Archival photos were later reworked in Photoshop. September 2025. The Acropolis of Athens is covered with swarms of melanic moths. The ancient stones pulsate with millions of quivers of wings. Everything is black, burned and flickering

In the summer of 2023 fires of varying sizes swept across Greece, destroying 378,381 hectares of land, burning thousands of animals,

and destroying civilian and industrial dwellings. In August, the fire in the northeastern region of Evros – the largest single fire ever recorded in the EU – killed 26 people. Fostered by strong winds, the flames burned numerous settlements to ashes, mostly cleared, until they besieged Athens, where nearly half of Greece’s remaining relatively safe population is concentrated. The government, mindful of what had happened in the summer of 2018, prioritized evacuations of residents to avert the huge loss of life caused by the fires that devastated the seaside resort of Mati that summer, causing 100 deaths and dozens of injuries.

According to the Ministry of Climate Crisis and Local Civil Protection, the weather conditions in summer 2023 were the worst since data on fire risk in Greece has been analysed. Since the beginning of 2023, as many as 7 times the alert level had been reached.

The European Forest Fire Information System (EFFIS) categorizes Athens as a high fire risk area. The risk is mainly related to strong winds, heat waves, and drought. These extreme events will be increasingly violent and frequent and are directly related to climate change.

A huge scientific consensus (Steffen et al. 2019; TWI2050 2019) traces the causes of climate change to a heterogeneous set of practices responsible for raising CO<sub>2</sub> in the atmosphere. Among them, coal, oil and gas combustion, deforestation, intensive livestock farming, and the use of nitrogen fertilizers have the greatest impact.

The 2023 Intergovernmental Panel on Climate Change (the United Nations Intergovernmental Panel on Climate Change), for the umpteenth time, highlighted that the world is on the brink of potential disaster and that drastic and immediate measures must be taken.



**Figure 5** Valeria Scrilatti, *Biston betularia carbonaria*. 2023. Mixed Media Art project created by Antonio Ianniello and Valeria Scrilatti. Satellite mode view of Google Earth, exported and retouched in Photoshop. This map includes data from: Data SIO, NOAA, U.S. Navy, NGA, GEBCOTerraMetricsImages. After 12/14/2015. August 2025. Smoke from the fires rises toward the Athens sky

After a very long period of drought that affected all of Greece, violent fires occurred in August 2025, this time on a devastating scale for Athens. The already adopted strategy used by Greek Prime Minister Kyriakos Mitsotakis in 2023, which consisted of letting the flames devour everything to save the population first and foremost, led between July and August 2025 to a massive clearing of the city, which, beyond the few citizens who did not adhere to the government's order, was overrun by flames. This was a true climate exodus (Westra 2013) organized by government forces.

In the weeks following the fire, when Athens was now reduced to a pile of ashes, swarms of *Biston betularia carbonaria*, that is, swarms of dark specimens of what are commonly called peppered moths, began to appear. *Lepidoptera* do not usually move in swarms, but this is not the only aspect that scientific authorities would fail to explain.

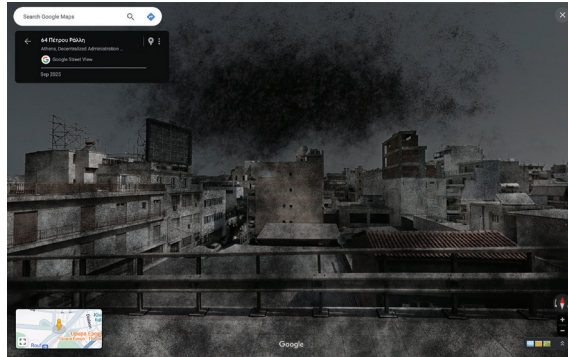
Smoke and ash covering the sun have thrown Athens into a state of permanent twilight. Black moths have covered every surface, and penetrated every space - now uninhabited dwellings, ruins of the ancient city, factories in the industrial district. Their bodies, like an endless carpet, cover every charred thing and coat its interior.



In times of climate monsters, the monster is no longer placed like the giants “at civilization’s periphery” (Cohen 1999, 6) but at the very heart of that civilization with which we have identified over the centuries in the western hemisphere of this planet.

Figure 6

Valeria Scrilatti, *Biston betularia carbonaria*. 2023. Mixed Media Art project created by Antonio Ianniello and Valeria Scrilatti. Petrou Ralli 64, Athina 1777 78, Greece. Exports of Google Maps in Street View mode, later retouched in Photoshop. A swarm effect was added to the image provided by Google with different brushes, masks and a texture



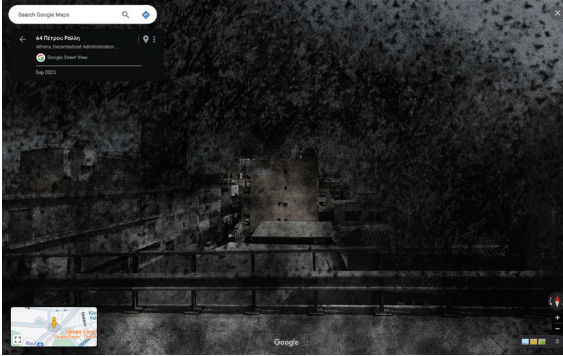
*Biston betularia carbonaria* is one of the best-known examples of evolution by natural selection. *Biston betularia* is a lepidopteran belonging to the family *Geometridae*, widespread in Eurasia and North America. It occurs in two main chromaticities: the white form (*typica*), which is the most common, and the melanic form (*carbonaria*), which has dark-colored wings instead.

The greater prevalence of *typica* is explained in terms of the conservation of the species as their white colour makes them invisible to predators on lichen-covered birch trunks. The situation is different for those that are the result of a natural genetic mutation, the so-called dark-coloured melanic moths, which instead are easy prey on the light-coloured lichen background. This made melanic moths less common than the lighter forms. This was the case until the nineteenth century when it began to be noticed that in cities it was the black form of the more common moth. Air pollution caused by industrialization had killed the lichens and darkened the trunks, effectively favouring the survival of the black form. Since the life span of the moth is very short, evolution by natural selection occurred extremely rapidly. In 1848 the first black peppered moth was recorded in Manchester. As early as 1895, 98 percent of the peppered moths in the city were black.

The presence of the melanic moth, so massive in Athens in the summer of 2025, is made to depend on a rapid evolution implemented based on the 2023 fires that had lapped the capital. In an environment devastated by the fires, the dark-colored moth was more likely to survive by camouflaging itself on charred logs.

A very large population of melanic moths was reproducing in the peripheries of the city, where the flames had come two summers earlier.

Soon after the 2025 fires from the outskirts of Athens, the peppered moth invaded the city.



**Figure 7**

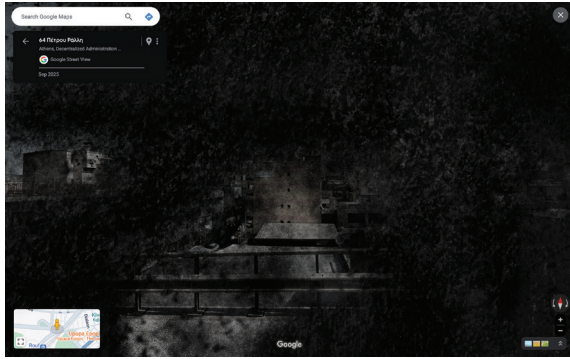
Valeria Scrilatti, *Biston betularia carbonaria*. 2023. Mixed Media Art project created by Antonio Ianniello and Valeria Scrilatti. Petrou Ralli 64, Athina 177778, Greece. Exports of Google Maps in Street View mode, later retouched in Photoshop. A swarm effect was added to the image provided by Google with different brushes, masks and a texture

Around early October 2025, swarms of melanic moths began to be observed moving to places in the country where fires would soon break out. This was yet another completely unexplained behaviour. Scientists have been and still are trying to evaluate many hypotheses but have not yet been able to come to any plausible conclusion. The fact is that the presence in the air of the melanic moth is now an omen that invites anyone to leave their home, their possessions, their city to a new place that will never be safe again.

**Figure 8**

Valeria Scirilatti, *Biston betularia carbonaria*. 2023. Mixed Media Art project created by Antonio Ianniello and Valeria Scirilatti. Petrou Ralli 64, Athina 1777 78, Greece.

Exports of Google Maps in Street View mode, later retouched in Photoshop. A swarm effect was added to the image provided by Google with different brushes, masks and a texture

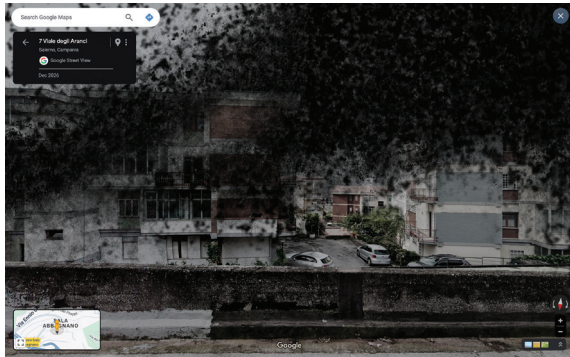


In early November 2025, a few melanic moths settled on the cream-coloured plaster of apartment complexes built during the economic boom years in a southern Italian city.

**Figure 9**

Valeria Scirilatti, *Biston betularia carbonaria*. 2023. Mixed Media Art project created by Antonio Ianniello and Valeria Scirilatti.

Viale degli Aranci, 7, Salerno, Italy. Exports of Google Maps in Street View mode retouched in Photoshop. A swarm effect was added to the image provided by Google with different brushes, masks and a texture





## 6 Globalgothic: All Roads are the Same

We've explored here a philosophy that unfolds through unorthodox means with the specific purpose of 'summoning' a situated monster thus inviting an embodied mind to act through concrete actions to cope with climatic change. The purpose, based on real events, was to invent a situated climate monster and not another specimen of the "Mcglobal-Mcgothic" (Byron 2013) monoculture that would be a monster with generic traits, usually a product of the cultural industry, that enacts a warning that remains so only on a theoretical and globally undifferentiated level. Yet as we imaginatively explored a southern Italian city through the Street View feature in search of one more place where the melanic moth might carry its warning, we came across streets identical to those in the suburbs of Athens and almost interchangeable. This is certainly nothing new for those concerned with urban settlements characteristic of contemporary times. What I am interested in emphasizing here is that the "globalgothic" (Byron 2013, 3) swarms, by showing us (*monstrare*) that the heterogeneous landscapes we find ourselves exploring are increasingly homogenized by anthropogenic intervention, prompt us to remap our itineraries (*monere*), to remake the roads of our collective existences, to repopulate the nodes and intersections of our routes with situated monsters, fellow travellers in our experience of the world where we do not rain down from above as zombified silhouettes but where precisely we are at home.

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