

Miguel Fernández Labayen (Universidad Carlos III de Madrid)

Loreto García Saiz (Universidad Carlos III de Madrid)

Traumatic Landscapes from Above: Images of Colonization and Violence in the *Sea of Plastic*

Abstract

The so-called “Sea of Plastic” in Almería (southern Spain) is the largest concentration of plastic greenhouses in the world. Because of its monumentalism and “accidental aesthetics” (Davis, 2015), this geographic region has been extensively depicted from above by aircrafts, satellites, and drones from the 1950s to the present. The purpose of this paper is threefold: first, it offers a historical account of these images from above (from the ones obtained during the Francoist period for geopolitical purposes to those taken by local farmers today) in order to understand its colonial condition and legacy; second, it explores the significance of these images in the process of institutionalization of the landscape and its use in the ideological battle that takes place in the core of the agribusiness regarding its human and environmental externalities; and finally, it analyzes the tension between the artistic and the political condition of these images.

We understand these productions as a visual testimony of the Anthropocene since they allow us to document the ecological violence that has taken place in this space over decades. Nevertheless, we argue that the aesthetic condition of most of the SoP’s images creates a distance that ultimately fails to show the consequences of agro-industrial activity in the long term: desertification, aquifers’ over-exploitation, and long-life plastic waste. Thus, these images allow us to think about the trauma inflicted on ecosystems and the representational challenges involved in representing traumatic landscapes.

Keywords

aerial images, satellite photography, traumatic landscapes, Anthropocene, Sea of Plastic

Introduction

The Sea of Plastic (SoP) is one of the few human-made infrastructures that are visible from the earth's orbit with the naked eye.¹⁾ Located on the south-eastern Spanish coast, in the province of Almería, and extended along more than three thousand square kilometers of surface area, it is the largest concentration of plastic greenhouses worldwide.²⁾ This plastic hub of intensive agriculture is also known as “Europe's orchard,” since it produces almost four million tons of fruits and vegetables every year, of which more than 70% are exported to the western European market, mainly to the UK, France, and Germany.³⁾

On a local level, the vast infrastructure that sustains this agribusiness has been widely celebrated because of the economic development that it has implemented in the region. However, it has also been severely criticized due to the environmental consequences and the labor conditions linked to its agro-industrial activity. Its impact has not gone unacknowledged in academia, and the Sea of Plastic has been studied in the fields of history,⁴⁾ economics,⁵⁾ geography,⁶⁾ anthropology,⁷⁾ sociology,⁸⁾ engineering,⁹⁾ and environmental studies.¹⁰⁾ Most of these approaches have used aerial images of the Sea of Plastic as evidence for their research, but hardly any analyzes them in-depth.

This article offers a visual studies account of the aerial visions of the Sea of Plastic. Through the examination of different representations of this agricultural space from above, our research intervenes in contemporary debates about ecocriticism and traumatic landscapes in three ways: first, it offers a historical account of the aerial images of the SoP from the 1950s until today; second, it understands these images as a part of the institutionalization process of the ideological and social conflicts within this space; and third, it analyzes these sources as a visual testimony of the Anthropocene. The article places the discussions on these aerial visions of the SoP at a crossroads between aesthetic, phenomenological, political, social, and ecocritical readings. In sum, we reflect on the historical

- 1) Javier Gallego, “Duque: ‘Desde el espacio destacan más los invernaderos de Almería que la Muralla China,’” *Antena 3 Noticias*, May 13, 2012, accessed May 13, 2021, https://www.antena3.com/noticias/ciencia/duque-espacio-destacan-mas-invernaderos-almeria-que-muralla-china_201205135749583b4beb28888065bd33.html.
- 2) Diego Luis Valera et al., *Greenhouse agriculture in Almería: A comprehensive techno-economic analysis* (Almería: Cajamar Caja Rural, 2016), 23.
- 3) *Análisis de la campaña hortofrutícola 2021/2022* (Almería: Cajamar Caja Rural, 2023), 71.
- 4) José Rivera, *La política de colonización agraria en el campo de Dalías: (1940–1990)* (Almería: Instituto de Estudios Almerienses y Cajamar, 2000).
- 5) Jerónimo Molina, “El papel de la agricultura intensiva en la economía de la provincia de Almería,” *Revista de humanidades y ciencias sociales*, no. 19 (2003), 13–38.
- 6) José A. Aznar-Sánchez, “Territory, Cluster and Competitiveness of the Intensive Horticulture in Almería (Spain),” *The Open Geography Journal* 4, no.1 (2011), 103–114.
- 7) Paloma Yáñez, “Music Videos as a Mode of Resistance in Almería's Industrial Agriculture,” *Visual Ethnography*, 9, no. 1 (2020), 58–76.
- 8) Jörg Gertel and Sarah Ruth Sippel, eds., *Seasonal Workers in Mediterranean Agriculture: The Social Costs of Eating Fresh* (New York: Routledge, 2014).
- 9) Abderrahim Nemmaoui, Manuel A. Aguilar, Fernando J. Aguilar, Antonio Novelli, and Andrés García Lorca, “Greenhouse Crop Identification from Multi-Temporal Multi-Sensor Satellite Imagery Using Object-Based Approach: A Case Study from Almería (Spain),” *Remote Sensing*, 10, no. 11 (2018), 1751.
- 10) Alfredo Tolón and Xavier Lastra, “La agricultura intensiva del Poniente Almeriense: Diagnóstico e instrumentos de gestión ambiental,” *M+A: revista electrónica de medioambiente*, no. 8 (2010), 18–40.

representations of the SoP with historiographical and geopolitical readings of the region as well as with contemporary takes on the SoP as a traumatic landscape. We approach these images as tokens of the transformation of a natural space into a traumatic landscape: a big plastic layer in a moment of oil peak and natural resources shortages. In this context, the images are an example of what Gómez-Barris has called the “extractive view,”¹¹⁾ by which aerial devices and “satellites, photograph large areas of the planet to convert them into commodities for utilitarian market ends.”¹²⁾

Our research looks at the three kinds of aerial images that have depicted this space: the cartographic aerial images of the 1950s and 1960s, the orbital images which capture the SoP from satellites, and the more recent artistic images that use drones and digital technology to surf through these territories. Though the article is organized around chronology, by no means this implies a teleological or deterministic reading of the different images. On the contrary, our approach presents the different technologies used to photograph the SoP (the plane, the satellite, the drone) as interconnected and challenging ways to domesticate the extension of the region, ways which have created an imagery that resonates and projects itself across time (from the 1950s to the present) and space (from plane photography to outer space views of Earth and drone captures).

The Sea of Plastic Through Its First Aerial Images

The origin of the SoP is directly linked to the autarkic maneuvers of the Instituto Nacional de Colonización (National Colonization Institute), created by the Francoist Regime after the Civil War for the revitalization and development of arid land from the 1940s onwards. During these years, the Regime performed an “Inward Colonization” along the Spanish territory for the establishment of hydraulic infrastructures that could convert the wasteland to irrigated agriculture. Between 1945 and 1969, the government built some 300 villages scattered throughout the Iberian Peninsula. This colonization was promoted, among other things, through the magazine *Vida Nueva*, which, as Tatjana Gajic points out, incorporated numerous aerial images of the colonized territories. As Gajic mentions,

seen from the vantage point of the regime, which is that of the vision from above, the newly built villages and irrigated lands appear as a clean, abstract pattern, a design free of history and oriented to a future yet to be produced — sown, grown, and harvested.¹³⁾

These images belong to a “colonial visual regime”¹⁴⁾ that was understood as a powerful tool to portray and control the land and thus used by the Regime to promote their plan of

11) Macarena Gómez-Barris, *The Extractive Zone: Social Ecologies and Decolonial Perspectives* (Durham: Duke University Press, 2017).

12) Gómez-Barris, *The Extractive Zone*, 8.

13) Tatjana Gajic, “Soil, Water, and Light: Aerial Photography and Agriculture in Spain,” in *Spanish Environmental Cultural Studies*, ed. Luis I. Prádanos (Woodbridge: Tamesis Books, 2023), 71.

14) Gómez-Barris, *The Extractive Zone*, 6.

inward colonization. This process of colonization stands as “a paradigmatic example of the role of the aerial vision in the monitoring, organization, and control of processes that take place of the ground, on the soil.”¹⁵⁾

The first aerial images of what would eventually become the Sea of Plastic (Fig. 1) were linked, as in many other places, to a military need of gathering geographic information. Aerial photography had been used extensively for the first time during the First World War¹⁶⁾ and it arrived at the SoP during the post-war period. It was then that the Army Map Service (AMS) of the United States, in collaboration with the Centro Geográfico de la Armada (Army Geographic Service) and the Spanish Instituto Geográfico y Catastral (Geographic and Cadastral Institute), carried out cartographic flights known as Series A (1945–1946) and Series B (1956–1957), the latter popularly called the “American flight” (Fig. 2). These cartographic flights were motivated by the geostrategic interest of the American government in the Spanish territory in times of international political tension. The “American flight” was a consequence of the Madrid Pacts of 1953, after which the US government established military bases in Spain in exchange for indirectly recognizing the Regime, and providing it with economic aid and military material. These flights were carried out at a scale of 1:33,000 and an altitude of 5,000 meters.¹⁷⁾



Fig. 1. Aerial photography of the American flight in of the territory that today occupies El Ejido

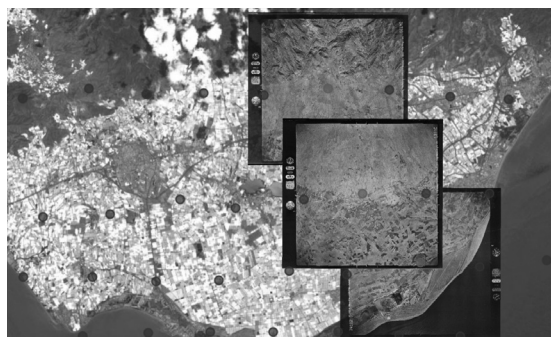


Fig. 2. Photographs of the American flight over a current satellite image of the Sea of Plastic

These cartographic flights updated and modernized knowledge of Spanish geography in the 1940s and 1950s. They also allow us to study the first aerial images taken of the ter-

15) Gajic, *Soil, Water, and Light*, 72.

16) Zoë Druick, “A Wide-Angle View of Fragile Earth’: Capitalist Aesthetics in The Work of Yann Arthus-Bertrand,” *Open Cultural Studies* 2, no. 1 (2018), 396–405.

17) Antonio Fajardo, “Los vuelos americanos de las series A (1945–46) y B (1956–57),” *Andalucía en la historia*, no. 52 (2016), 86–91.

ritory of the Campo de Dalías, which became the Sea of Plastic, and they immortalize the Almerian countryside in its initial stages when the process of inward colonization of certain rural areas was set into motion, even before the first greenhouses were built. According to Gil-Fournier,

in a blurred, hybrid process, land became an infrastructural surface to hold and transform solar light energy into cereals, fruits, and vegetables in an efficient way, while at the same time, the reflected sunlight became gradually a source of information to be stored in the photographic plates carried on by aircrafts owned by military and cartographic institutes.¹⁸⁾

Gil-Fournier understands the Spanish Inward Colonization in terms of “a material genealogy of the contemporary visual regime, attaching a history of forced labor and environmental exploitation to the production of images today.”¹⁹⁾ Through this process, agricultural landscape transformation and aerial visual practices are entangled. In the case of the territory that today occupies the Sea of Plastic, agriculture becomes “an eminently visual practice” from the period of Inward Colonization.²⁰⁾ For instance, nowadays the SoP’s agro-industry uses remote sensing technologies to control the crop’s growth even below the plastic.²¹⁾

The American flight was followed by others, such as the Vuelo Interministerial (Interministerial Flight, 1973–1986) (Fig. 3) and the Vuelo Nacional (National Flight, 1981–1986), which carried out the same exercise of mapping the Spanish territory through the compilation of aerial images. These images grant a relative continuity in the documentation of the territorial changes that the SoP has undergone during the 20th century, especially after the orthophotographic process done in this space, which consists of the union and combination of multiple aerial photographs after a process of error correction and

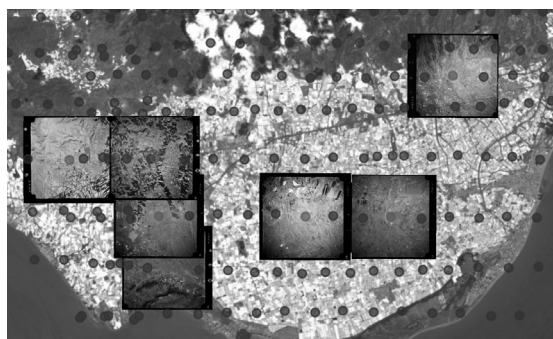


Fig. 3. Photographs of the Interministerial Flight over a current satellite image of the Sea of Plastic

18) Abelardo Gil-Fournier, “Seeding and seeing: the inner colonization of land and vision,” *APRJA: A Peer-Reviewed Journal About Research Networks* 6, no. 1 (2017), 97.

19) Abelardo Gil-Fournier, “La tierra está en el aire. Imagen y colonización interior” (Paper presented at Glocal [codificar, mediar, transformar, vivir] III Congreso Internacional de Investigación en Artes Visuales, Universitat Politècnica València, July 6, 2017).

20) Gajic, *Soil, Water, and Light*, 72.

21) Nemmaoui et al., “Greenhouse Crop Identification.”

standardization that avoids defects derived from differences in altitude, perspective, or camera adjustments in the various photographs. The combination of pictures has, as a result, a complete image of the Sea of Plastic in different moments of its history, which can be consulted on the website of the Centro Nacional de Información Geográfica del Instituto Geográfico Nacional (National Geographic Information Centre of the National Geographic Institute) of Spain.

These historical aerial images have been crucial to represent the landscape changes in the Sea of Plastic over the decades. Press articles²²⁾ and films, such as the documentary *Me acuerdo perfectamente* (José Sánchez Montes, 2014), have juxtaposed these images to compare the transformation of the territory. These visual representations work as a point of reference when contrasting the territorial changes that have occurred due to the development of intensive agriculture (Fig. 4). In the case of *Me acuerdo perfectamente*, the film narrates, through a discussion about memory and family legacy, the transformations of the landscape and the society in the coastal village of Balerna, and the political tensions created by the distribution of the agricultural land during the dictatorship.

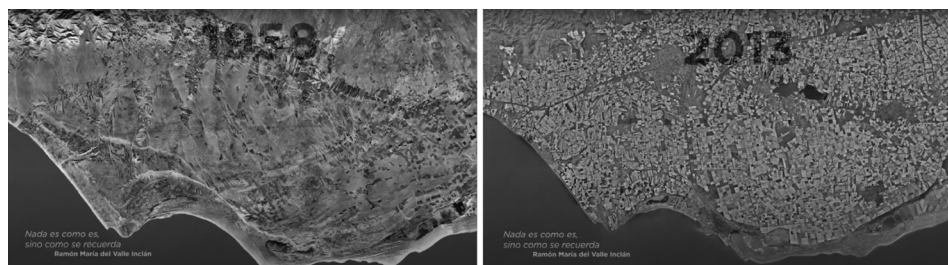


Fig. 4. Orthophotographic shots the Sea of Plastic used in *Me acuerdo perfectamente*

Satellite Views and Popular Culture in the Sea of Plastic

The views of the Sea of Plastic from above did not become prescient in popular culture until satellite images gained media presence. Unlike aerial photographs, satellite views are taken from a much higher altitude, showing the Plastic Sea in its entirety, so that it can be seen in relation to the surrounding geography.

The first and one of the most widely circulated satellite images of the SoP was from *Almería, Spain*, used by the United Nations Environment Program in its 2005 publication *One World, Many People: Atlas of Our Changing Environment* (Fig. 5). Its aim was to document through “images from space” how human activity had made irreversible changes on the world’s landscape. It compared two satellite photographs of the Dalías countryside from 1974 and 2000. Their origin was not specified, although they might have been taken by a meteorological satellite. These photographs work in a similar way to José Sánchez

22) Carlos Prego, “La increíble expansión del ‘mar de plástico’ de Almería desde 1960, explicada en fotografías aéreas,” *Xataka*, May 6, 2022, accessed December 21, 2022, <https://www.xataka.com/ecologia-y-naturaleza/increible-expansion-mar-plastico-almeria-1960-explicada-fotografias-aereas>.

23) “La devastación de la Tierra,” *El Mundo*, 2005, accessed December 19, 2022, <https://www.elmundo.es/fotografia/temas/ciencia/2005/06/atlasonu/index.html>.

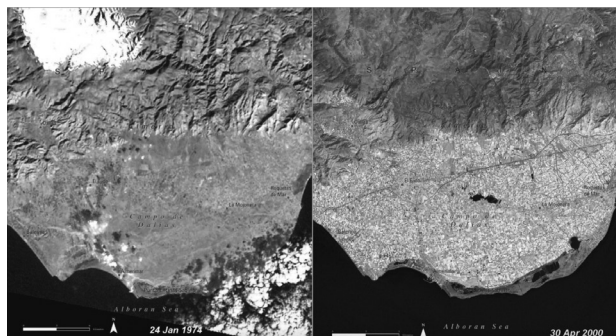


Fig. 5. Almería, Spain. Satellite images of the Sea of Plastic from 1974 and 2000

Montes' *Me acuerdo perfectamente* and they have been used recurrently in press articles to denounce the "devastation of the Earth,"²³⁾ to envision environmental changes in scientific papers,²⁴⁾ to explain the history of this peculiar landscape,²⁵⁾ to celebrate its economic success,²⁶⁾ or even to sell adventure tourism activities.²⁷⁾

In the years before their publication, the Sea of Plastic was already becoming a topic of national and international interest due to documentaries that were denouncing the working conditions of migrants in the greenhouses, like *Bienvenidos al paraíso* (Miguel Ángel Nieto, 2000), *Vida de moro* (Josep Serra, 2001) or *L'Eldorado de plastique* (Arlette Girardot and Philippe Baqué, 2001). The former created a political turmoil when right-wing parties considered it to be "biased and sensationalist,"²⁸⁾ and the director of Radio Televisión Española (RTVE), the state public broadcasting corporation, had to declare in the Parliament and provide an explanation about this production.²⁹⁾

Satellite images became an even more popular trademark of the SoP after the renowned NASA astronaut and former Spanish Minister of Science, Pedro Duque, stated in 2007 that the greenhouses could be seen from outer space:

From the International Space Station, it is perfectly visible. I personally think, and some of my colleagues agree, that it is the most visible human-made infrastructure. In daylight, of course. I didn't know it but a French colleague, after six months on the station, asked me what was that white thing you could see in the south of Almería. He thought it was salt flats or something like that. He knew it was something that somebody had done. That is to say, it is not something you have to pay attention to

24) Tolón and Lastra, "La agricultura intensiva del Poniente Almeriense."

25) Alexis Rodríguez-Rata, "La NASA descubre un 'mar de plástico' español donde antes sólo se veía verde," *La Vanguardia*, December 15, 2018, accessed January 8, 2023, <https://www.lavanguardia.com/economia/20181208/453319751509/campo-de-dalias-el-ajido-poniente-almeriense-pasado-y-presente-mar-de-plastico-antes-verde.html>.

26) Javier Vegas, "Así es el primer mar de plástico español," *Eltiempo.es*, January 17, 2019, accessed December 18, 2022, <https://www.eltiempo.es/noticias/asi-es-el-mar-de-plastico-espanol>.

27) "Invernaderos De Almería Desde El Espacio, Imágenes Espectaculares," *Toyo Aventura*, June 2, 2022, accessed January 15, 2023, <https://www.toyoaventura.es/noticias/invernaderos-de-almeria-desde-el-espacio/>.

28) Session's record of the Congress, no. 111, November 29, 2000.

29) After this episode, the documentary remained archived and was never broadcasted again. As a result of the present research, the production is once again available for public access, in this case on RTVE's website.

notice, but it caught the attention of people who had no idea that it was there when they passed over it (our translation).³⁰⁾

The national press echoed this statement, emphasizing the symbolic legitimacy of Pedro Duque, a representative of the scientific community, and his proclamation that this plastic infrastructure is “admirable.”³¹⁾

Thus, the Sea of Plastic started to be celebrated as a monumental and unique space in the world, a noteworthy human intervention that no one could overlook, its sheer pres-



Fig. 6. A journalist shows an aerial shot of the Sea of Plastic in *Lo más de lo más*



Fig. 7. Satellite image of the SoP in *España a ras de cielo*

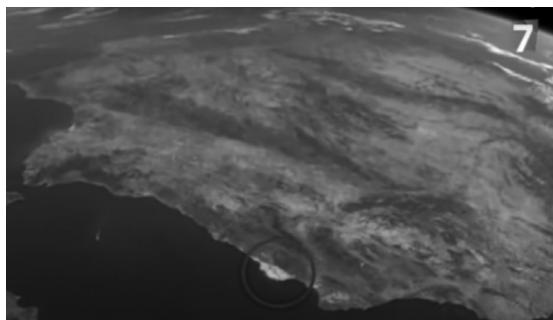


Fig. 8. The Sea of Plastic from a satellite in the documentary *Parcela nº 24*

30) Efrén Legaspi, “III Jornadas Astronómicas,” Andalucía Investiga, accessed December 23, 2022, <https://w3.ual.es/Universidad/GabPrensa/index/2007/abril/18-04-07/17-04-07%20ANDALUCIA%20INVESTIGA%2001.pdf>.

31) “Duque dice que los invernaderos de Almería son lo único que se ve desde el espacio,” *El Mundo*, April 10, 2007, accessed December 10, 2022, <https://www.elmundo.es/elmundo/2007/04/10/ciencia/1176220298.html>.

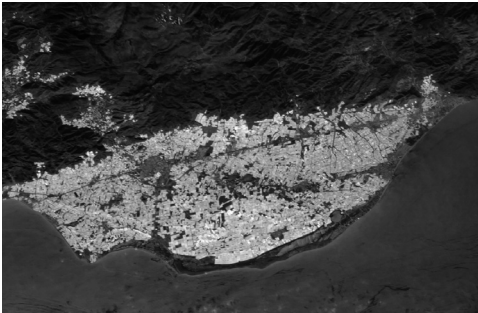


Fig. 9. iss008e14686. Photography taken by a crewmember of Expedition 8 in 2004 from the International Space Station



Fig. 10. Almería, Spain. Photography taken in 2011 by a crewmember of from NASA Terra spacecraft



Fig. 11. Instagram post of astronaut Thomas Pesquet

ence as remarkable as Earth’s most iconic landforms. These celebratory readings neglected the negative externalities related to social and environmental issues within the area. Examples of such a trend can be found in TV programs like the episode *Lo más de lo más* of the show *Comando actualidad* (S08E32), dedicated to “the biggest, the highest, the most dangerous,” the episode *España de mil colores* of the program *España a ras de cielo* (S01E05), or the institutional documentary *Parcela nº24* (José Luis Hernández Arango, 2015) (Figs. 6, 7 and 8). Iconically and verbally, Pedro Duque’s words became a mantra of the SoP’s “greatness”: “It is the only man-made work that can be seen from space. They said it was the Chinese wall, but no, it is the greenhouses of Almería,” the voice-over proclaims in *Parcela nº 24*.

Truth be told, the visualization of the SoP from Earth’s orbit had already generated interest among the astronomical community prior to Duque’s statements, as many photographs of the Plastic Sea had been taken by astronauts from the International Space Sta-

tion. Particularly relevant were those obtained in 2004 and 2011, as they were published on NASA's website and widely distributed in the press (Figs. 9 and 10). Astronauts' fascination with this space continues to this day. In 2021, the cosmonaut Thomas Pesquet took a picture of the Plastic Sea and uploaded it to his Instagram account with the following post (Fig. 11):

As the world's population continues to grow, we need to innovate to improve food production. Space research is already having an impact on this type of agriculture — indeed the word is technically no longer appropriate as it comes from the Greek word for 'field', and most tomatoes (for example) are fed directly with nutrients, without a field or soil — just like in space.³²⁾

As can be read, Pesquet links astronomical research to agricultural innovation, in line with the technological utopianism of the agribusiness' supporters. After all, aerial and satellite images of the Sea of Plastic have had a significant impact in the processes of institutionalization of this space,³³⁾ and have become an important symbol of the ideological conflicts within Almería's agro-industry. On the one hand, "the plastic regime is a powerful stronghold of the economy's technological utopianism,"³⁴⁾ so the images have been used to celebrate a joint achievement and are the symbol of the "Almería miracle." A substantial part of the population, greenhouse owners, and local farmers rely on these images to boast the reversal of a very unfavorable economic situation that placed the province at the bottom of the Spanish economy in the 1950s and which, thanks to the efforts of thousands of families, has become an economic, technological, and demographic benchmark.³⁵⁾ However, other sectors, attracted in part by the uniqueness of the landscape, use the same images and the undoubted scale of the infrastructure to criticize the social and environmental problems associated with this industry, as will be discussed below.

Film Images and Artistic Photography

The singularity of the SoP has also attracted the gaze of numerous local and international artists, who choose to portray this landscape from above. That is the perspective that bet-

32) Thomas Pesquet, *Instagram*, August 12, 2021, accessed December 15, 2022: https://www.instagram.com/p/CSeMIiwMHOQ/?utm_source=ig_web_copy_link.

33) Other aspects that have eventually contributed to the institutionalization of this territory and its presence in Spanish social imagery are (1) the recurrent use of this space as a background scenario for dramatic fiction stories: *El mejor de los tiempos* (Felipe Vega, 1989), *Las cartas de Alou* (Montxo Armendáriz, 1990), *Poniente* (Chus Gutiérrez, 2002), *Naufragio* (Pedro Aguilar, 2010) and (2) the use of the term "mar de plástico" (Sea of Plastic) to give the title to some of these cultural products. That is the case of the fiction movie *El mar de plástico* (Silvia Munt, 2011) or the TV series *Mar de plástico* (Boomerang TV for Atresmedia, 2015–2016).

34) Amanda Boetzkes, *Plastic capitalism: Contemporary art and the drive to waste* (Cambridge: MIT Press, 2019), 184.

35) This narrative of the Almería miracle is still very much present in the area, and has been transferred from the oral stories to new media representations in a process that could be conceptualized as "territory", by which land and stories are intertwined in the same phenomenon. Warren Cariou, "Territory: Land and Language in the Indigenous Short Story — Oral and Written," *Commonwealth Essays and Studies* 42, no. 2 (2020).

ter represents, first, the scale of the agricultural infrastructure; and second, the “accidental aesthetics,”³⁶⁾ that is, the involuntary geometric design that the greenhouses create, a striking patchwork of colors and forms which, following Heather Davis,³⁷⁾ could be inadvertently exchanged for a piece of contemporary art:

This phenomenon, of accidental or incidental aesthetics, is a hallmark of what is being called the Anthropocene — the era in which extractivist logic and capitalist economics have drastically reshaped the chemical, geological, and biospheric conditions of the earth. [...]. The aesthetic effects — as in *aisthesis*, or affects produced by our sensorial experience of the environment — have been entirely re-ordered by the presence of plastic.³⁸⁾

Before the use of advanced visual technologies became a common practice, the overhead views of the Sea of Plastic were mostly taken from the Sierra de Gador, the mountains that surround the space from the north. Examples abound in TV documentaries such as *Bienvenidos al paraíso* (Miguel Ángel Nieto, 2000) or *Vida de moro* (Josep Serra, 2001), and in the fiction features *Las cartas de Alou* (Montxo Armendáriz, 1990) and *Poniente* (Chus Gutierrez, 2002).



Fig. 12. Aerial shot of the SoP in *El Ejido, the Law of Profit*

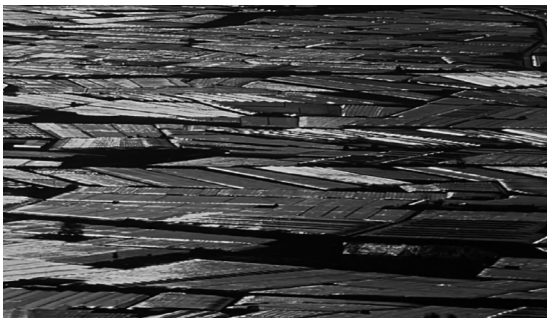


Fig. 13. Aerial shot of the SoP in *Home*

36) Heather Davis, “Life & Death in the Anthropocene: A Short History of Plastic,” in *The Routledge Companion to Critical Approaches to Contemporary Architecture*, eds. Swati Chattopadhyay and Jeremy White (London: Routledge, 2019), 347–358.

37) Davis, *Life & Death in the Anthropocene*, 348.

38) *Ibid.*, 348.

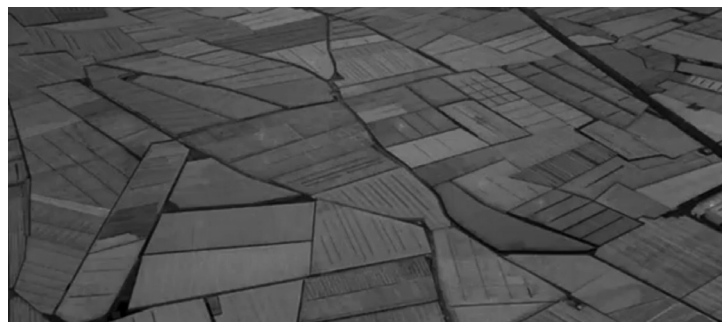


Fig. 14. Aerial shot of the SoP in *Blade Runner 2049*

In 2006, only a year after the famous satellite image of the SoP was published by the UN, the first aerial shots — taken from an aircraft — in international productions were produced. First, in the awarded documentary *El Ejido, the Law of Profit* (Ejido, la loi du profit; Jawad Rhalib, 2006) which denounces the poor living conditions of the workers of the greenhouses (Fig. 12), then in the international hit *Home*, directed in 2009 by the aerial photographer and environmentalist Yann Arthus-Bertrand (Fig. 13). In this documentary, Arthus-Bertrand uses aerial images of several places on Earth, alternating “between the sublime beauty of nature and the equally breath-taking scale of its destruction at the hands of development”³⁹⁾ to denounce how the ecological balance of Earth is threatened. Especially relevant to this context is the case of the blockbuster *Blade Runner 2049* (Denis Villeneuve, 2017) (Fig. 14), which uses aerial shots of the Sea of Plastic to represent a post-apocalyptic world in which, due to a climate catastrophe, people’s only source of protein comes from worms grown in greenhouses. Although dystopian and traumatic landscapes are not the same, the accidental aesthetics of *Blade Runner 2049* become an effective way to portray a dystopian science fiction world. It represents a non-desirable future, yet the images are captivating.

This vertical gaze, which used to be historically reserved for the military, the natural sciences, or high-budget film productions, has recently become reachable to a larger demographic. Local institutions, farmers, and artists can produce these kinds of images thanks to the democratization of drones. Examples of this could be the institutional documentary *Cultivando bajo el techo de cristal* (Nuria Vargas, 2016) (Fig. 15), the music video *Cogiendo habichuelas* (Faster, 2021) (Fig. 16), or the short film *Fuera de lugar* (Mandu Aguilera, 2017) (Fig. 17).

In these productions, filmmakers either choose an oblique perspective or a vertical one to portray the SoP’s landscape from above. The oblique perspective allows the audience to see an endless horizon of plastic. The result is not very different from the former shots taken from the mountains of Sierra de Gador, but in these cases, the directors have more freedom to choose the specific angle from which to portray the space. The vertical perspective, on the other hand, is the preferred one to focus on the “accidental aesthetics” previously mentioned. Oropesa gives an example of this when, discussing the TV series

39) Zoë Druick, “A Wide-Angle View of Fragile Earth’: Capitalist Aesthetics in The Work of Yann Arthus-Bertrand,” *Open Cultural Studies* 2, no. 1 (2018), 397.



Fig. 15. Aerial shot of the SoP in the documentary *Cultivando bajo el techo de cristal*



Fig. 16. Aerial shot of the SoP in the music video *Cogiendo Habichuelas*



Fig. 17. Aerial shot of the SoP in the short movie *Fuera de lugar*

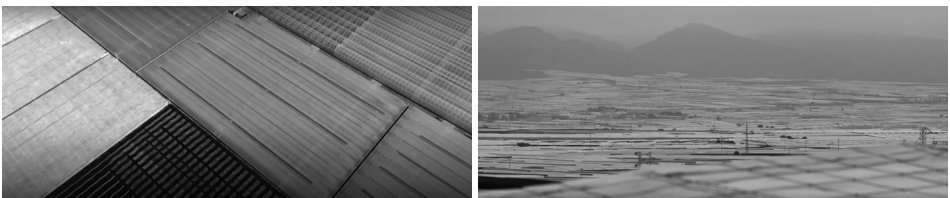


Fig. 18. Aerial shots of the Sea of Plastic in the documentary *Después de las ocho*

Mar de plástico (Sea of Plastic, Boomerang TV, 2015–2016), he states: “on an aesthetic level the drone shots of the sea of plastic highlight the beauty of the sun’s reflection on the plastic.”⁴⁰⁾ In some cases, oblique shots are combined with vertical ones to show both perspectives with different aims, like in *Mar de plástico* or the documentary *Después de las ocho* (Carlos Juan Martínez, 2020) (Fig. 18).

40) Prego, “La increíble expansión del ‘mar de plástico.’”

Most, if not all, of the audiovisual pieces that are shot in the Sea of Plastic, whether they aim at representing this specific space or a fictional one, contain shots taken from above that point at its scale and beauty. Nevertheless, its spectacularity is used with different means: to portray post-apocalyptic dystopian scenarios, to denounce the dysfunctionalities and negative externalities of the agribusiness, or to celebrate the economic milestone that the construction of this landscape has meant for the region. These productions have created, through similar images, different narratives concerning this hypermediated landscape and its history, and its economic, social, technological, and environmental implications.

Cinema is not the only lens-based art that has looked down on the SoP. Other visual artists have approached this space from above. The first one to do it was the photographer Edward Burtynsky in 2010 in his series *Water*. Burtynsky's work has focused since the 1980s on capturing the intervention and impact of industry on the planet. He has photographed thousands of landscapes that have suffered deep transformations after the development of human industrial activities. He has also worked in the trilogy of environmental documentaries *Manufactured Landscapes* (Jennifer Baichwal, 2006), *Watermark* (Jennifer Baichwal and Edward Burtynsky, 2013), and *Anthropocene: The Human Epoch* (Nicholas de Pencier, Jennifer Baichwal and Edward Burtynsky, 2018). The series *Water* aims to open a discussion on how landscapes are reshaped because of the human relationship with water. Paradoxically, water is absent from most of the pictures, like *Greenhouses*, the one that portrays the Sea of Plastic (Fig. 19). This picture is a good example of the mismatch between the message that the author aspired to convey and the reception of the image. In the press, *Greenhouses* has been used to debunk the myths of Almería's agribusiness,⁴¹⁾ by promoting its economic success and its benefits for the environment, but it has



Fig. 19. *Greenhouses* by Edward Burtynsky



Fig. 20. *Las norias de Daza* by David Thomas Smith

41) "Los falsos mitos de la agricultura almeriense," *Techno Teonel*, January 30, 2018, accessed January 20, 2023, <https://technoteonel.com/los-falsos-mitos-la-agricultura-almeriense/>.



Fig. 21. AV_MARPLASTICO_008 by Bernhard Lang



Fig. 22. N°TGSII_04 by Tom Hegen

also been used to promote a campaign for the removal of plastic waste from greenhouses⁴²⁾ or in the poster of the already mentioned TV series *Mar de plástico*.

Another visual artist that has benefited from this perspective is David Thomas Smith. Using aerial photographs taken from the internet, his series *Anthropocene* composes these digital files to create symmetric mosaics that “reflect upon the complex structures that make up the centers of global capitalism,”⁴³⁾ including the Sea of Plastic in his work *Las Norias de Daza* (2009–2010) (Fig. 20). This could be considered a post-photographic practice⁴⁴⁾ that combines photocartographic processes and recycled images from the internet that open up questions about the authorship and accidental aesthetics: “knowing that there are surveillance cameras and satellites photographing everything 24 hours a day leads us to speculate how much of it is accidental and unforeseen.”⁴⁵⁾ Thus, Smith departs from found images of a real landscape to create a fake symmetric one, giving the water a bigger presence in the picture than it has in real life and contributing to a further aestheticization of the SoP. Another singularity of this art piece is that, unlike most representations of the Sea of Plastic, it is presented vertically.

German aerial photographer Bernhard Lang has been since 2010 working on his *Aerial Views*, in which we can find the series *Mar del plástico* (2014) (Fig. 21) awarded in 2015 with the International Photography award in the category of Fine Art Abstract. In the project description, Lang makes explicit that Germany is one of the main destinations of the fruits and vegetables that are grown inside these greenhouses, pointing at the international scope of this phenomenon that, far from being a local issue, is a demand from richer countries in Europe.

Lastly, Tom Hegen is also a German photographer who focuses on the “traces we leave on the earth’s surface (and) provides an overview of places where we extract, refine, and consume resources.”⁴⁶⁾ After his series about Dutch greenhouses in 2019, in 2021 he did

42) “Campana de retirada de residuos plásticos de invernaderos en Almería, Granada y Huelva,” *Gestores de residuos*, August 2, 2018, accessed January 20, 2023, <https://gestoresderesiduos.org/noticias/campana-de-retirada-de-residuos-plasticos-de-invernaderos-en-almeria-granada-y-huelva>.

43) David Thomas Smith, accessed January 4, 2023, <https://www.david-thomas-smith.com/anthropocene>.

44) Joan Fontcuberta, “Por un manifiesto posfotográfico,” *La Vanguardia*, May 11, 2011, accessed January 15, 2022, <https://www.lavanguardia.com/cultura/20110511/54152218372/por-un-manifiesto-posfotografico.html>.

45) Fontcuberta, “Por un manifiesto posfotográfico.”

46) Tom Hegen, accessed January 4, 2023, <https://www.tomhegen.com/about>.

his series *Greenhouses II* on the Sea of Plastic (Fig. 22). In line with Lang's ideas, this series aims to show how "our demand for products that don't grow in our proximity and the need to have them available throughout the year puts pressure on landscapes we believe we have no connection to."⁴⁷⁾ Especially interesting is the focus of this series on the colonization of the mountains by the greenhouses after most of the flatland of Campo de Dalías has already been occupied.

Except for David Thomas Smith, all the aforementioned artists are aerial photographers specialized in environmental issues. As such, they search for places whose aerial view is both relevant to convey an environmental message but also somehow beautiful. In this way, the Sea of Plastic has become a fetishized landscape for aerial photographers and filmmakers who look for spaces that are both aesthetically appealing and serve the environmental message they aim to convey.

Aesthetics of the Anthropocene in the Aerial Images of the Sea of Plastic

Contemporary images of the SoP are inextricably connected to the colonial past of this space. Just as the greenhouses progressively colonized the province, triggered by the hydro-modernity plans of the Regime,⁴⁸⁾ plastic settled in its visual representations. Plastic is the "substrate of advanced capitalism,"⁴⁹⁾ "the material of the Anthropocene by excellence", and the hypervisible milestone of our traumatic landscape. In most of the aerial images of this agricultural space, you can see no humans, no soil, no water, only a fragmented geometric plastic layer overtaking nature, regardless of the purpose of each specific image. The aerial views depict how the economic activity of intensive agriculture follows the logic of colonization, spreading across the territory and extracting its resources for economic profit. This results in what Gómez-Barris calls "extractive view": "a matrix of symbolic, physical, and representational violence [...] that sees territories as commodities, rendering land as for the taking."⁵⁰⁾

The vertical representations of the Sea of Plastic are an accurate visual testimony of the Anthropocene. By zooming out and with plastic overtaking any human and more-than-human presence, they depict the ecologies of violence that take place, and how humans have the agency to heavily intervene and exert increasing pressure on the ecosystems. The existence of aerial views of this space from its origins until today allows us to document the "slow violence" that is taking place in the shape of ecocide in the long term,⁵¹⁾ a process that is often linked to capitalism and industrialization.

The aerial images are also evidence of how the agricultural industry is highly dependent on fossil fuel-based material, and how the "oil industry reterritorializes planetary life."⁵²⁾

47) Ibid.

48) Luis I. Prádanos, ed., *Spanish Environmental Cultural Studies* (Woodbridge: Tamesis, 2023), 27.

49) Davis, *Life & Death in the Anthropocene*, 348.

50) Gómez-Barris, *The Extractive Zone*, 5.

51) Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011), 2.

52) Amanda Boetzkes, *Plastic capitalism: Contemporary art and the drive to waste* (Cambridge: MIT Press, 2019), 184.

From this point of view, these images are an attempt to show the magnitude of the environmental violence that humans are infringing on the no-human world.

However, the effect that emerges from the decision to recurrently use the “technological gaze”⁵³⁾ together with the lack of human representation — which is the “present absence”⁵⁴⁾ of the images — and the aestheticization of the landscapes complicates the relationship between the artistic and the political condition of the images. The images show the more-than-human world organized and colonized to serve the needs of humans, but without pointing at them, in line with the current critiques that have been made to the term Anthropocene⁵⁵⁾. We experience the Sea of Plastic through a specific technological and visual framework and this vertical, distant, and abstract perspective consciously or unconsciously hides the socioenvironmental implications of this agribusiness.

The images reveal a local manifestation of the bigger “hyperobject”⁵⁶⁾ that plastic is. However, the most dangerous consequences of this hyperobject, which threatens the health of humans and more-than-humans, stay unrepresented. Beyond the hypervisibility of plastic in the representations of this space from above, its long-term externalities, like the pollution and plastic waste generated by the industry — which often is thrown into the ocean or accumulated in illegal landfills — or the unknown consequences of human exposure to this material, remain hidden. Something similar occurs with other externalities associated with this economic activity: the progressive desertification that the territory is suffering, the overexploitation of the aquifers, and the working conditions of the mostly migrant labor force who operate inside them. The representational challenge posed by these hard-to-visualize long-term externalities implies that they are absent from the aerial images of the Sea of Plastic, questioning their capacity in bringing forth a critical approach to this phenomenon.

The vertical and abstract perspective helps to “aestheticize” and romanticize this traumatic landscape, fostering its spectacularization. That is the reason why it has been considered one of the 10 most beautiful landscapes of Spain⁵⁷⁾ which would explain why the reception of the images and their latter use are often contrary to what the author of the image intended in the first place, being Burtynsky’s *Greenhouses* and United Nations’ *Almería, Spain* photographs exemplary of this. Even when the images of the SoP are used to portray dystopian post-apocalyptic futures — like in *Blade Runner 2049* — or to convey environmental messages — like landscape artistic photography, — they are visually appealing and celebrated. As Zoë Druick has stated regarding the work of Yann Arthus-Bertrand, director of *Home*,

53) Richard Lewis, “Technological Gaze: Understanding How Technologies Transform Perception,” in *Perception and the Inhuman Gaze: Perspectives from Philosophy, Phenomenology, and the Sciences*, eds. Anya Daly, Fred Cummins, James Jardine, and Dermot Moran (New York: Routledge, 2020), 128–142.

54) Caren Kaplan, *Aerial Aftermaths: Wartime from Above* (Durham: Duke University Press, 2017), 17.

55) Many authors dismiss this term as lacking a critical look at the unequal ways in which humans, due to colonial or gender issues, have historically impacted the environment.

56) Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (London: University of Minnesota Press, 2013).

57) “El ‘espectacular’ paisaje almeriense que está entre los 10 más bonitos de España,” *La voz de Almería*, February 23, 2020, accessed January 15, 2023, <https://www.lavozdealmeria.com/noticia/5/vivir/187387/el-espectacular-paisaje-almeriense-que-esta-entre-los-10-mas-bonitos-de-espana>.

His work is thus a compelling illustration of the contradictions at play when we are taught to look at the negative effects of capitalism through a liberal humanist lens: one risks telling a story about global responsibility that is incapable of mapping global power relations.⁵⁸⁾

On top of that, scholars like Davidson and Gismondi state that this aerial visual language establishes “an authoritative industrial discourse in support of corporate investment, government assistance, the inevitability of commercial-scale exploitation, and ultimately the human domination of passive nature.”⁵⁹⁾ The tension between the harmful nature of the landscapes and the magnificence of its representation has in turn been defined by Peeples as “toxic sublime.”⁶⁰⁾ Indeed, the vertical images of the Sea of Plastic become a paradigmatic example of the inspiring views of contamination denounced by Peeples, allowing us to think of the trauma inflicted on natural ecosystems, the problems of abstraction, and the aestheticization of traumatic landscapes. They exemplify the tension between the seen and the unseen⁶¹⁾ that has been present since the origins of aerial photography, between the artistic and the political image.

Conclusions

In this paper, we have explored the continuous presence of aerial images of the Sea of Plastic throughout its history, from the moment when it was barely a project engineered as part of the bigger hydro-modernity plan during the 1950s, to the current state of international acknowledgment of this infrastructure as a key supplier for the European market. In line with Gajic’s work, there has been an “active implication of aerial imaging in the process of environmental transformation and management in Spain from the 1950s onward,”⁶²⁾ and we build on this, pointing at the Sea of Plastic as a paradigmatic example of this implication, due to the exceptional extension of the land that has eventually been colonized and the continuation of the aerial regime until the present time, when satellite imagery keeps being used to control the growth and development of the crops even below the plastic. Hence the Sea of Plastic stands as a paradigmatic example of how “colonial visual regimes normalized an extractive planetary view that continues to facilitate capitalist expansion.”⁶³⁾

Second, we have analyzed these visions from above as important symbols for the process of institutionalization of this space. We have explored the crucial role that orbital images have had to place the Sea of Plastic on social imageries. The images have become a symbol of the territory, a weapon for the ideological battle that takes place in the area re-

58) Zoë Druick, “A Wide-Angle View of Fragile Earth,” 297.

59) Debra J. Davidson and Mike Gismondi, *Challenging Legitimacy at the Precipice of Energy Calamity* (New York: Springer, 2011).

60) Jennifer Peeples, “Toxic Sublime: Imaging Contaminated Landscapes,” *Environmental Communication: A Journal of Nature and Culture* 5, no. 4 (2011), 375.

61) Kaplan, *Aerial Aftermaths*, 14.

62) Gajic, *Soil, Water, and Light*, 69.

63) Gómez-Barris, *The Extractive Zone*, 6.

garding the legitimation and demonization of this enormous agricultural infrastructure. As we have demonstrated, the very same images are used by the agro-industry's stakeholders to celebrate the industry's world leadership in the field of high-tech greenhouse agriculture and by the critical voices that look at its socio-environmental consequences, from the grassroots activist movements to the United Nations Environmental Program.

Finally, we have analyzed the conflictive correlation between the political and the artistic nature of these images. Initially, we acknowledge the existence of a genealogy of images of the Sea of Plastic, which allow us to document the drastic changes that have taken place in this territory. This enables us to talk of the cluster of images of the Sea of Plastic from above as a visual testimony of the Anthropocene. However, although this perspective helps document a part of the slow violence that has been perpetuated in this traumatic landscape, we detect a representational challenge, fostered by the nature of the images, which prevents them from revealing the environmental consequences of this agribusiness. This translates into a mismatch between the environmentalist intentions with which many artists take aerial photographs of the SoP — and to which they explicitly allude in their films or photographic exhibitions — and the use that other sectors or individuals, appropriating these images, make of them. Thus, this hypermediated landscape has created, through similar images, different narratives in relation to its history and its economic, social, technological, and environmental implications.

Acknowledgments

This article has been written in the context of the research project “Institutional Documentary and Amateur Cinema in the Colonial Era: Analysis and Uses” (PID2021-123567NB-I00), financed by the Ministry of Science and Innovation/State Research Agency of the Government of Spain and European Regional Development Funds. It has also benefited from a predoctoral grant (Formación del Profesorado Universitario) from the Spanish government (ref. FPU20/04047).

Bibliography

- Análisis de La Campaña Hortofrutícola 2021/2022* (Almería: Cajamar Caja Rural, 2023).
- Aznar-Sánchez, José A. *Dinámica Demográfica y Económica de Almería En El Siglo XX*. (Almería: Universidad de Almería, 2000).
- Aznar-Sánchez, José A. “Territory, Cluster and Competitiveness of the Intensive Horticulture in Almería (Spain),” *The Open Geography Journal* 4, no. 1 (2011), 103–14.
- Boetzkes, Amanda. *Plastic Capitalism: Contemporary Art and the Drive to Waste* (Cambridge, MA: The MIT Press, 2019).
- “Campaña de retirada de residuos plásticos de invernaderos en Almería, Granada y Huelva,” *Gestores de residuos*, August 2, 2018, accessed January 20, 2023, <https://gestoresderesiduos.org/noticias/campana-de-retirada-de-residuos-plasticos-de-invernaderos-en-almeria-granada-y-huelva>.
- Caparrós, Rodolfo. *50 Años de Transformaciones Territoriales En Almería. Aniversario Del Vuelo Americano 1957 2006* (Almería: Instituto de Estudios Almerienses, 2006).

- Cariou, Warren. "Territory: Land and Language in the Indigenous Short Story — Oral and Written," *Commonwealth Essays and Studies* 42, no. 2 (2020).
- Castillo-Díaz, Francisco José, Luis Jesús Belmonte-Ureña, Francisco Camacho-Ferre, and Julio César Tello-Marquina. "The Management of Agriculture Plastic Waste in the Framework of Circular Economy: Case of the Almería Greenhouse (Spain)," *International Journal of Environmental Research and Public Health* 18, no. 22 (2021), 12042.
- Checa, Juan Carlos, Ángeles Arjona, and Francisco Checa y Olmos. *Ecosistema Del Campo de Dalías (1950–2004)* (Almería: Universidad de Almería, 2007).
- Davidson, Debra J., and Mike Gismondi. *Challenging Legitimacy at the Precipice of Energy Calamity* (New York: Springer, 2011).
- Davis, Heather. "Life & Death in the Anthropocene: A Short History of Plastic," in *The Routledge Companion to Critical Approaches to Contemporary Architecture*, eds. Swati Chattopadhyay and Jeremy White (London: Routledge, 2019), 347–358.
- Diario de sesiones del Congreso de los Diputados, no. 111, 29 de noviembre de 2000.
- Druick, Zoë. "A Wide-Angle View of Fragile Earth': Capitalist Aesthetics in The Work of Yann Arthus-Bertrand," *Open Cultural Studies* 2, no. 1 (2018), 396–405.
- "Duque Dice Que Los Invernaderos de Almería Son Lo Único Que Se ve Desde El Espacio," *Elmundo.es*, accessed December 10, 2022, <https://www.elmundo.es/elmundo/2007/04/10/ciencia/1176220298.html>.
- "El 'espectacular' paisaje almeriense que está entre los 10 más bonitos de España," *La voz de Almería*, accessed January 15, 2023, <https://www.lavozdealmeria.com/noticia/5/vivir/187387/el-espectacular-paisaje-almeriense-que-esta-entre-los-10-mas-bonitos-de-espana>.
- Fajardo, Antonio. "Los Vuelos Americanos de Las Series A (1945–46) y B (1956–57)," *Andalucía En La Historia*, no. 52 (2016), 86–91.
- Fontcuberta, Joan. "Por Un Manifiesto Posfotográfico," *La Vanguardia*, accessed January 15, 2022, <https://www.lavanguardia.com/cultura/20110511/54152218372/por-un-manifiesto-posfotografico.html>.
- Gajic, Tatjana. "Soil, Water, and Light: Aerial Photography and Agriculture in Spain," in *Spanish Environmental Cultural Studies*, ed. Luis I. Prádanos (Woodbridge: Tamesis, 2023), 68–75.
- Gallego, Javier. "Duque: 'Desde El Espacio Destacan Más Los Invernaderos de Almería Que La Muralla China,'" accessed May 13, 2021, https://www.antena3.com/noticias/ciencia/duque-espacio-destacan-mas-invernaderos-almeria-que-muralla-china_201205135749583b4beb28888065bd33.html.
- Gertel, Jörg, and Sarah Ruth Sippel. *Seasonal Workers in Mediterranean Agriculture: The Social Costs of Eating Fresh* (New York: Routledge, 2014).
- Gil-Fournier, Abelardo. "La tierra está en el aire: Imagen y colonización interior" (Paper presented at Glocal [codificar, mediar, transformar, vivir] III Congreso Internacional de Investigación en Artes Visuales, Universitat Politècnica València, July 6, 2017).
- Gil-Fournier, Abelardo. "Seeding and Seeing: The Inner Colonization of Land and Vision," *APRJA: A Peer-Reviewed Journal About Research Networks* 6, no. 1 (2017), 91–101.
- Gómez-Barris, Macarena. *The Extractive Zone: Social Ecologies and Decolonial Perspectives* (Durham: Duke University Press, 2017).
- "Invernaderos De Almería Desde El Espacio," *Toyo Aventura*, accessed January 15, 2023, <https://www.toyoaventura.es/noticias/invernaderos-de-almeria-desde-el-espacio/>.

- Kaplan, Caren. *Aerial Aftermaths: Wartime from Above* (Durham and London: Duke University Press, 2018).
- “La Devastación de La Tierra,” *El Mundo*, accessed December 19, 2022, <https://www.elmundo.es/fotografia/temas/ciencia/2005/06/atlasonu/index.html>.
- Legaspi, Efrén. “III Jornadas Astronómicas,” *Andalucía Investiga*, accessed December 23, 2022, <https://w3.ual.es/Universidad/GabPrensa/index/2007/abril/18-04-07/17-04-07%20ANDALUCIA%20INVESTIGA%2001.pdf>.
- Lewis, Richard. “Technological Gaze: Understanding How Technologies Transform Perception,” in *Perception and the Inhuman Gaze: Perspectives from Philosophy, Phenomenology, and the Sciences*, eds. Fred Cummins, Anya Daly, James Jardine, and Dermot Moran (New York: Routledge, 2020), 128–142.
- “Los falsos mitos de la agricultura almeriense,” *Techno Teonel*, accessed January 20, 2023, <https://technoteonel.com/los-falsos-mitos-la-agricultura-almeriense/>.
- Molina, Jerónimo. “El papel de la agricultura intensiva en la economía de la provincia de Almería,” *Revista de humanidades y ciencias sociales*, no. 19 (2003), 13–38.
- Morton, Timothy. *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013).
- Nemmaoui, Abderrahim, Manuel A. Aguilar, Fernando J. Aguilar, Antonio Novelli, and Andrés García Lorca. “Greenhouse Crop Identification from Multi-Temporal Multi-Sensor Satellite Imagery Using Object-Based Approach: A Case Study from Almería (Spain),” *Remote Sensing* 10, no. 11 (2018), 1751.
- Nixon, Rob. *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2013).
- Oropesa, Salvador A. “Mar de plástico: Un western constitucional,” in *La expansión del género negro*, eds. Alex Martin and Javier Sánchez (La Coruña: Andavira, 2020), 577–584.
- Peeples, Jennifer. “Toxic Sublime: Imaging Contaminated Landscapes,” *Environmental Communication: A Journal of Nature and Culture* 5, no. 4 (2011), 375.
- Prádanos, Luis. *Spanish Environmental Cultural Studies* (Woodbridge: Tamesis, 2023).
- Prego, Carlos. “La increíble expansión del ‘mar de plástico’ de Almería desde 1960, explicada en fotografías aéreas,” *Xataka*, accessed December 21, 2022, <https://www.xataka.com/ecologia-y-naturaleza/increible-expansion-mar-plastico-almeria-1960-explicada-fotografias-aereas>.
- Rivera, José. *La Política de Colonización Agraria En El Campo de Dalías: (1940–1990)* (Almería: Instituto de Estudios Almerienses y Cajamar, 2000).
- Rodríguez-Rata, Alexis. “La NASA Descubre Un ‘Mar de Plástico’ Español Donde Antes Sólo Se Veía Verde,” *La Vanguardia*, accessed January 8, 2023, <https://www.lavanguardia.com/economia/20181208/453319751509/campo-de-dalias-el-ejido-poniente-almeriense-pasado-y-presente-mar-de-plastico-antes-verde.html>.
- Singh, Ashbindu, ed. *One Planet, Many People: Atlas of Our Changing Environment* (Nairobi, Kenya: UNEP, 2005).
- Tolón, Alfredo, and Xavier Lastra. “La Agricultura Intensiva Del Poniente Almeriense: Diagnóstico e Instrumentos de Gestión Ambiental,” *M+A: Revista Electrónica de Medio Ambiente*, no. 8 (2010), 18–40.
- Varela, Diego, Luis Belmonte, Francisco Molina, and Alejandro López. *Greenhouse agriculture in Almería: A comprehensive techno-economic analysis* (Almería: Cajamar Caja Rural, 2016).

Vegas, Javier. "Así es el primer mar de plástico español," *Eltiempo.es*, accessed December 18, 2022, <https://www.eltiempo.es/noticias/asi-es-el-mar-de-plastico-espanol>.

Yáñez Serrano, Paloma. "Music Videos as a Mode of Resistance in Almería's Industrial Agriculture," *Visual Ethnography* 9, no. 1 (2020), 58–76.

Filmography

Bienvenidos al paraíso (Miguel Ángel Nieto, 2000)

Blade Runner 2049 (Denis Villeneuve, 2017)

Cogiendo Habichuelas (Faster, 2021)

Cultivando bajo el techo de cristal (Nuria Vargas, 2016)

El Ejido, the Law of Profit (El Ejido, la loi du profit; Jawad Rhalib, 2006)

Home (Yann Arthus-Bertrand, 2009)

L'Eldorado de plastique (Arlette Girardot and Philippe Baqué, 2001)

Las cartas de Alou (Montxo Armendáriz, 1990)

Poniente (Chus Gutierrez, 2002)

Fuera de lugar (Mandu Aguilera, 2017)

Vida de moro (Josep Serra, 2001)

Biographies

Miguel Fernández Labayen is an associate professor in the Department of Communication at Universidad Carlos III de Madrid, where he is also a member of the research group TECMERIN and the Institute of Spanish Cinema.

Loreto García Saiz is a pre-doctoral research fellow in the Department of Communication at Universidad Carlos III de Madrid and a member of the research group TECMERIN.