# INTRODUCTION

## VISUAL HEAT

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everywhere. To up the river, where it flows among green aits and meadows; down the river, where it rolls defiled among the tiers of shipping, and the waterside pollutions of a great (and dirty) city. On the Essex marshes, on the Kentish heights. creeping into the cabooses of collier-brigs; lying out on the yards, and hovering in the rigging of great ships; drooping on the gunwales of barges and small boats. In the eyes and throats of ancient Greenwich pensioners, wheezing by the firesides of their wards; in the stem and bowl of the afternoon pipe of the wrathful skipper, down in his close cabin; cruelly pinching the toes and fingers of his shivering little 'prentice boy on deck... This is how Charles Dickens describes an average day in London in the year 1852. The opening of *Bleak House* remains silent on what it is that drapes the city and reduces visibility: was it the gloomy weather? Or was it the incessantly burning coal of the industrial epicenter? Today we know that what capped London that day was a novel merging of natural and technical forces: 'smog', a word and an object deriving from the combination of smoke and fog. The coal that drove the trains, rendered the air in mines unbreathable, and allowed for an ever-expanding factory production, offered the earliest visual renderings of human-induced climate change: the atmospheric blur caused by smog in industrial environments.

More than a century later, the fires have not stopped burning. Check your favorite news channel for the contemporary version of images of pollution: gray, indeterminate, smoggy urban panoramas along with liquefying glaciers, burning forests, drying deserts—constitute the core of how climate change is represented.

We are all accustomed to the dramatic iconography of disaster. What we aimed at with this issue was to go 'behind' their aesthetic surface and instead look at their premises. Therefore we conceived *Hot Pictures* as a platform to investigate the production, distribution, and reception of 'hot' images: images of climate disaster, fast and slow, spectacular and indiscernible, familiar and unfamiliar in their portrayal of a changing environment.

RESOLUTION's focus on digital images specifically placed this project within a particularly contemporary paradox. On the one hand, digital imaging devices allow us to conceptualize and see largescale environmental facts. Through the global network in which they take part, we learn about, visualize, monitor, (mass)communicate, and reconstruct the environmental condition below and above ground. On the other hand, however, these devices participate in the very economy consuming and changing the planet. It is impossible to produce and distribute any digital picture without the use and management of geo-scale commodities and energy infrastructures.

This is the paradox of any digital image representing climate change today. Inevitably, the act of rendering ecological disaster from meteorological satellites to microsensors—also hastens its swing. Visualizing technologies are deeply intertwined with environmental exploitation. *Hot Pictures* picks up on this dialectic as a prompt to consider digital images as double agents: simultaneously attacking and preserving precarious ecologies. It does so through a variety of formats including interviews, essays, artist contributions, and reviews.

#### GENEALOGIES OF VISUAL HEAT

While commissioning texts for *Hot Pictures*, it became clear that this link between environmental exploitation and visualizing technologies has a long history. It is not the monopoly of digital images to generate heat, nor to depict the climate: painting, photography, and cinema all have environmental entanglements of their own. If this text started in the mid-nineteenth century, it's because such undercurrents of visual heat are finding new forms in our own contemporary media. Two contributions in this issue dive into that history.

As a starting point, we arranged an encounter between Caroline A. Jones, art historian and critic at MIT, and Matthew C. Wilson, visual artist and filmmaker. Their conversation, in fact, goes even further back in time. Departing from Wilson's film *Geological Evidences* (2017), it progresses from the time of prehistory—the video was shot on an archaeological site that later served as an extraction location—to our own late industrial moment. The dialogue orbits around energy regimes, their attending imagery, and the role of non-human agents in industrial environments. Jones and Wilson excavate past and present co-dependencies of images and energy, in aesthetic and political terms, broaching a range of examples in which extractive mentalities underlie art making. Where should we look for alternative models of energy circulation? Understanding the past and looking beyond the human are two possible paths.

The more one digs into various images of environmental degradation, the clearer it becomes that one must outline an informed history of how they came to be what they are today. This entails rearranging and reinterpreting what until recently seemed unwavering pictorial tropes, as Christopher Heuer's contribution to this issue does. We asked Heuer, professor of art history at the University of Rochester, to interact at a distance with Francis Klingender and with the latter's seminal *Art and the Industrial Revolution* (1947). In this collision between two authorities in unorthodox, ecological readings of visual history, Heuer asked himself what we, today, can glean from Klingender's Marxist perspective on visual culture. His remarks show how the premises of our visual world are contained in our recent past:

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the nineteenth century accelerated the possibilities of image reproduction and gave birth to the 'environmental sublime'.

### CATASTROPHIC IMAGES

Two contributions in this issue, by cultural theorist Alexander Klose and artist Femke Herregraven, confront sites of catastrophic extraction, and the complex ecological challenges they raise when it comes to their visual rendering. Considering, respectively, the oil field and the mine, Klose and Herregraven bridge notions of materiality and visuality. They thus challenge us to reexamine the underlying logics governing our understandings of such images.

If in William Turner's renderings of industrial fogginess, imperial smoke was celebrated as a sign of prosperity, more recent images of draped megacities are not symbols of power. Rather, they embody an absolute threat to human health and the environment. They have come to stand as images of catastrophe, a pictorial genre that Alexander Klose scrutinizes in his essay Extraction-Destruction-Production. As the title suggests, it positions such pictures at the intersection of multiple stages of the fossil fuel cycle. Klose zooms in on image-making as it specifically relates to the oil industry as an all-enveloping energy form, omnipresent in image-making devices since the dawn of cinema. He looks at moments when oil wreaks havoc in both the visual and the environmental realms-from its extraction that turns into destruction, to its extraction as image production. Klose draws on Susan Schuppli's notion of 'dirty pictures' -which was fundamental to the conception of Hot Pictures-to approach the possibility of images generated by disaster, rather simply depicting it, effectively creating a new category of visuality.

Klose's ruminations on oil's capacity to give rise to new forms of image production are drawn out in Femke Herregraven's visual essay on 'optical mining'. *When The Dust Settles* narrates the manifold ways that processes of visualization and extraction are tethered to each other. Unearthed in places like the Democratic Republic of Congo or Canada, raw materials such as cobalt and lithium go on to be incorporated into technologies like drones and satellites, which are in turn used to scan the subsoil, in order to plunder even deeper into the earth's resources. *When The Dust Settles* weaves word and image to dig up a 'prospective' site ranging from deep inside the earth's crust to the exosphere, in which the virtual and material realms meet.

#### A GLOBAL PERSPECTIVE

Dealing with climate change, we are constantly confronted with the narrowness of our possibilities of analysis. Out there, however, subjects such as governments and multinationals are poised to consider the real scales and dimensions of environmental problems. Together with transnational political institutions, they craft concrete policies and industrial processes. At this level, what is 'sustainable' has to be gauged in tandem with financial, political, and industrial realities, both locally and globally. RESOLUTION's Caszimir Cleutjens and Laurens Otto reached out to Rick Goss-who counsels companies on how to achieve their sustainability goals as head of his Green Cognition project-to find out how the tech industry is preparing its green transition. Digital innovation is fuelling a desirable energy efficiency curve. With Goss, however, RESOLUTION grappled with the inverse concern: in a world of exponentially growing demand for infrastructure, services, raw minerals, electricity, and computing power, asserting itself across fragmented political realities, how can digital industries project a sustainable future? Indeed, what would 'sustainable' mean, on this scale?

From the point of view of the physical circulation of devices, the West currently stands in the middle of a threefold relation. Assembly of products occurs in the East, they land in our homes for some years, before being expelled to developing countries, where they are amassed as waste or live a new life as second-hand utilities. In looking for how artists can relate to changing technologies and environmental landscapes outside the usual geographical vantage points, we asked critic and art historian Wan-Yin Chen to review *Screen Ecologies: Art, Media, and the Environment in the Asia-Pacific Region*, published by MIT Press in 2016. Chen's review demonstrates that assessing the cultural scene of distant geographies becomes tricky without the right contextualization.

Lastly, for this number's artist's edition we chose to feature an object as playful as it is rife with tension. Artist Clara Thomine stages *ventes privées d'avenir*: 'private sales of future', or 'sales deprived of future'. Friendly, prosaic objects such as beach balls and hand-held cameras can be bought in bulk, as 'souvenirs of the present'. *Hot Pictures* features Thomine's black-and-white beach towels, which force the sunbather to choose their climate impact. Each towel has an 'albedo value' of either

0 or 1—is either fully sun-absorbent or fully reflective—allowing you to show off your ecological convictions at the beach.

Each contribution in *Hot Pictures* allows us to see double: to attend to both the technological possibilities that render pollution visible and the often-polluting effects of those operations. The question remains whether current technologies leave us as starstruck in the face of pollution as the impressionists were dazzled by novel industrial clouds in the time of Dickens. There's something insidiously impressive about photographs of orange-tinged skies during bush fires, green lakes of lithium mining, and smoking piles of electronic waste. However attentively RESOLUTION has tried to spell out the underpinnings of digital images, we too risk not seeing the forest for the trees—missing the climate disaster looming behind meticulously produced pictures.