The thermographic narrative in Incoming and There Will Be No More Night

A narrativa termográfica em Incoming e There Will Be No More Night

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ABSTRACT

Incoming (2017), by photographer and filmmaker Richard Mosse, is a multi-channel art installation that is based on the thermal detection system of a powerful and restricted military surveillance camera, adapted by Mosse to observe refugee camps in southern Europe. *There Will Be No More Night* (2020), a film by filmmaker Éléonore Weber, triggers records of military operations filmed from a war aircraft in tracking and attack actions, using thermal images from pilots' helmets. This study analyzes the artistic appropriation processes of the immersive and multi-screen format produced by artist Richard Mosse and the use of military archives in cinematographic modulation, used as technological clothing and surveillance images in the documentary by director Éléonore Weber.

Keywords: Image, artistic appropriation, refugees

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RESUMO

Incoming (2017), do fotógrafo e cineasta Richard Mosse, é uma instalação artística multicanal que se baseia no sistema de detecção térmica de uma potente e restrita câmera de vigilância militar, adaptada por Mosse para observar campos de refugiados no sul da Europa. *There Will Be No More Night* (2020), filme da cineasta Éléonore Weber, aciona registros de operações militares filmados desde aeronaves bélicas em ações de rastreamento e ataque, utilizando imagens térmicas visualizadas nos capacetes dos pilotos. O presente trabalho é uma análise dos processos de apropriação artística do formato imersivo e multitela produzido pelo artista Richard Mosse, e o uso de arquivos militares em modulação cinematográfica, acionados como vestimenta tecnológica e imagens de vigilância no documentário da diretora Éléonore Weber.

Palavras-chave: Imagem, apropriação artística, refugiados

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A The thermographic narrative in Incoming and There Will Be No More Night

INCOMING (2017), BY PHOTOGRAPHER and filmmaker Richard Mosse, is an artistic installation that works with biopolitical logic (Beiguelman, 2021) associated with the dimension of thermal detection carried out from a high-tech camera built for US military agencies, and adapted by Mosse for cinematographic use. Developed in partnership with cameraman Trever Tweeten and composer Ben Frost, the project is a multichannel installation that analyzes heat maps of human bodies captured by a military camera classified as a weapon under international law (Martin, 2019). The technology is structured to display body heat at a distance of more than 30 km, domain restricted, and initially designed for battlefields, war zones, and conflict spaces[1].

Mosse reconfigures the camera for cinematographic use in classic steady-cam support and applies the technology to observe people in refugee situations in United Nations camps and areas of the southern border of Europe (Mediterranean Sea). He circumscribes the spectrographic images generated by the military apparatus in an artistic dimension: the mirrored caloric modulations reveal graphs of heat, the biological intimacy undetectable to the human eye (breathing and heart rate, traces of sweat, blood circulation, etc.).

In Mosse's work, the images are re-signified in a powerful and innovative audiovisual effect that results in a film without narrative accompaniment or dialogues but incorporates acoustic elements, soundtrack, and cinematographic *mise-en-scène* in its aesthetic dimension. The result is a creative conception developed with the use of multi-screens: a video installation and a photographic project that dialogue in a 52-minute video based on thermal images produced with refugees in southern Europe[2].

Arranged in audiovisual language, the invisible images or specters produced by Mosse with the high-tech camera flow from the cinematographic modulation adapted for close use (in steady-cam) and distant (equipped with a telephoto lens, with the possibility of zooming over ten kilometers). Monochromatic images are generated, subtracted from a wide range, showing mainly two capture universes: everyday scenes of refuge zones showing the movements of people in different activities (from children eating and teenagers playing soccer to subjects talking and walking alone in the confinement space); and dramatic images of the processes of rescue and salvage of shipwreck survivors in the Mediterranean.

In a way, this thematic conception is built practically throughout the diegesis. Challenging sequences of rescuing victims' bodies in Mediterranean waters alternate with images of faces and specters of individuals in refugee camps. The images generated by thermal modulation make it possible to watch complex scenes, such as a filmic sequence in which the dissection of a corpse of

[1] It serves, for example, for tracking hidden individuals in mountainous dimensions and dense urban areas. According to Martin (2019), it is also occasionally used for searching, detecting, and rescuing people. Its manipulation is computer-programmed, and the equipment works as a thermographic camera that records the visual specters and the "biological signatures" (Heat Signatures) produced by different bodies.

[2] Incoming combines photographic material (*Frameworks*) and audiovisual language, scheduled to be exhibited in museum spaces and art galleries. It is a *sui generis* creation, made for immersive rooms that use three large screens, measuring 8 meters in size, with synchronous and asynchronous progress of the displayed images – in three-channel High Definition video. Its realization occurred in 2017 at the request of the National Gallery of Victoria (Melbourne) and the Barbican Art Gallery (Londres).

a drowning victim is exposed in close range (zooming of details of the hands, body, and visual spectrum).

Incoming exposes, therefore, the contemporary logic of biopower, developed, as Giselle Beiguelman (2021, p. 26) writes, from the "retinal tyranny of modern subjectivity" and the *de-subjectivation* from technologies of graphic visualization, thermography, and telepower, as Beiguelman refers, in the "reconfigurations of the look, ways of seeing and being seen." It focuses on heat and invasive and invisible images, undetectable to human eyes, which show the human being in their most basic biological trace. Similar to the images detected by long-range missiles, which look for sources of heat and thermal traces, the technology recognizes invisible and camouflaged thermal specters and sensorialities. In Mosse's artistic treatment, the procedure that tracks bodies and does not see identities is reorganized to propose a unique aesthetic, acousmatic, and immersive experience, operating in the interstice between documentary, photojournalism, and contemporary art.

There Will Be No More Night (2020), a 77-minute film by French filmmaker Éléonore Weber, uses several videos recorded by helicopter and fighter pilots in regions of NATO military actions (mainly Afghanistan, Iraq, and Pakistan). She organizes the material into a narrative centered on the spectral modulation of the image, thermal and profane, which replaces the traditional view of pilots dressed in high-tech helmets. The powerful cameras with long-range zoom and night vision and the possibility of thermographic modulation alternate the traditional view of military apparatus, allowing viewing from kilometric heights and distances. The effect also facilitates the undetectable and deadly approach in the execution of military operations, which are recorded and displayed by the pilots[3].

The film's narrative, which largely follows the filmmaker's comments (in the voice of actress Nathalie Richard) on the recorded records, is based on footage of military operations produced from aircraft in tracking and surveillance actions, which often turn into attack and elimination of people. The director interviews Private Pierre V., whose anonymous and protected testimony (which does not appear in the film) feeds the narrative structure. In the gesture of narrative organization, Weber produces a meticulous essay on the complex images generated by American and French troops in Afghanistan, Iraq, and Pakistan. The pilots recorded the files themselves, and their use and easy dissemination available on YouTube without restriction show the terrible coincidence between the gesture of looking, recording, and identifying targets and the staging of violence (in this case, instrumentalized in the concomitance of the human eye with the machine – the high-tech helmets)[4].

[3] While the film's narrative text, by actress Nathalie Richard, explains that NATO regulatory procedures require recording the actions, later analyzed by military supervisors, in most cases, it is not used in legal actions (even when the recorded action results in execution). Most of the videos used in the film were quickly pulled from YouTube and listed at the end.

[4] What Farocki (2013) called "operative images" to erase the human trace make it challenging to accuse and even more difficult to recognize the authors. Disseminated mainly during the Gulf War in 1991, coming from cameras attached to the tip of guided missiles, they became known as "images without people," or "machine-images," without human manipulation, transmitting the impression of precision and cleanliness – contrary to the "dirty-images," or "counter-images," standard in wars (mutilated bodies, corpses, and destruction).

Placing the spectator at the center of the modulated image – the targets and supposed military targets – Weber turns the files recorded by the pilots into cinematographic content. Here, the very nature of the image, conditioned by surveillance and execution technology, deepens the perspective of elimination. As impressive as the biological trail and the possibility of viewing targets at extreme range, the silhouette generated by the images from hot springs does not undo the confusion with the human perspective. In the voice of the pilots, at various times, it is possible to see the installed doubt (and the abject joy) in recognition of targets and supposed targets. The military pilots scour the image generated by the technology of the helmets, looking for signs of violence and possible threats (weapons, suspicious gestures, etc.) – but no concrete threat, other than that produced by the aerial surveillance system, is actually seen throughout the film.

The present work is an analysis of the immersive and multi-screen format (the video installation *Incoming*) produced by the artist about contemporary refugee camps and the use of military archives generated by attack situations and surveillance by thermal tracking cameras in fighter planes and helicopters flown by Europeans and North Americans in attack missions, artistically reorganized in the context of the film *There Will Be No More Night* (2020).

INCOMING (RICHARD MOSSE, 2017)

Between 2014 and 2017, photographer and filmmaker Richard Mosse captured images of massive migrations of people, mainly from Africa and the Middle East, searching for refuge and shelter in European countries. Most of the time, coming from known migration routes and displaced by humanitarian disasters, civil wars, and disastrous political and social situations, migrants seek the southern borders of Europe to enter the continent, where they end up detained in temporary refugee camps[5].

Using a high-tech thermographic camera with a qualified range of over 30 kilometers and use restricted to the military sphere, Mosse organizes thermal maps of migratory flows and focuses on heat as a figurative modulation. He develops, on an audiovisual and photographic level, a set of images documenting the experience of massive displacement and life in refugee camps in Greece and Germany (in addition to the Port of Calais, in France, where the film ends). The use of a sophisticated camera adapted for filmic technology (steady-cam, telephoto zoom), accompanied by a musical score and cinematographic montage,

[5] *Incoming*, in this sense, captures images mainly of two of the most critical routes used for the passage of populations in a migratory situation: the one known as the Turkish route, which begins with displacements of people from Syria, the Middle East, and Central Asia and which often ends at Tempelholf Airport in Berlin (converted into a shelter for refugees); and the one commonly established as the African route, set in motion by migrants coming from black Africa on their way through the Sahara desert towards Libya (usually through boats used to cross the turbulent waters of the Mediterranean towards Italy, Spain, etc.); in addition, the film ends with images of the port of Calais, in northern France, a place known for the Jungle Camp, temporary shelters that serve as the last port before crossing the channel towards England.

creates *Incoming* (2017), an immersive video installation that proposes a vigorous aesthetic narrative defined by heat specters, similar to the X-ray effect, which conforms undetectable images transforming them into biopolitical modulations (Beiguelman, 2021).

Developed jointly with cameraman Trever Tweeten and musician and composer Ben Frost, the work is a multichannel installation that scales the minimal biological registers produced by body heat (map heats), invisible to the human eye, in a cinematographic montage. The thermal monitoring camera explores the remaining human biological spectrum in the surveillance system's military effect. It marks the spectrographic work by imposing a narrative based on thermal detection (rather than through sound and/or image).

The video installation conceived by Mosse, programmed for immersive rooms and audiovisual use, is projected onto three large screens (8 meters). It was exhibited for the first time in 2017 at the Barbican art gallery in London, just before being published in a photobook[6]. Accompanying it is the photo exhibition, winner of the Prix Pictet, *Heat Maps* (2017), which exalts the figure of refugees on the contemporary geopolitical map based on the metamorphosis brought about by the reduction of the thermal sign. Invariably, it is accompanied by another composition, reproduced on sixteen panels forming a visual and acoustic architecture of great dimensional power, presented together in some galleries – called *Grid* (2017).

[6] The eponymous work *Incoming* (MOSSE, 2017).

In the 52 minutes of video in three HD channels on the immersive screens, the work intertwines images of US planes flying over targets of ISIS fighters – in a military operation conducted in the Syrian city of Dabiq, a few kilometers from the border with Turkey –, with images of the aircraft carrier USS Theodore Roosevelt, and missiles launched against enemy positions and fires caused by bombs and movement of military troops carried out during the night. The film is completed with images of search and rescue missions for African refugees in the Mediterranean Sea, in addition to scenes from temporary reception camps: images from refugee camps on the island of Lesbos and Lampedusa, sequences shot at the temporary shelter for immigrants at the former Tempelholf airport, in Germany; and images of the Port of Calais, in France, the final passage of the composition.

The film's opening is structured with scenes of guided missiles used to bomb strategic objectives by the United States Army. The film also depicts flights of helicopters and jet planes in the skies over Syria and nearby countries. The images from the island of Rhodes, in Greece, present the second movement

of the visual organization, being possible to see in generally distant shots the gestures of the rescue teams and the population removed from the rescue boats attended. It is possible to observe images of some of the faces of the immigrants from the sea crossing, taken with the adapted telephoto lens but protected from identification because of the thermal camera.

The sequence of assistance provided by a rescuer to some of these refugees is, in this sense, quite revealing: the hypothermia of the bodies of the rescued immigrant's contrasts with the caloric impression of the rescue agent's hands (Figure 1), which covers the bodies of the immigrants with blankets and aluminum blankets while trying to massage them. Dark shadows that signal human heat can be seen in the rescuer's hands printed on the flanks of the boat and the blankets used. At the same time, it is possible to notice almost no sign of heat in the subjects lying there (we can imagine how cold these bodies are in the thermal difference exposed by the heat detection camera).

Figure 1

Richard Mosse – Photogram of Incoming. Video installation on three screens (7.1 sound, 52 min 10 sec)

Note. Source: *Incoming*, Richard Mosse[7]

[7] Digital chromogenic print on metallic paper, #100 (2014-2017). Retrieved from http://www.nga.gov/exhibitions/2019/richard-mosse-incoming.html.

In the same cinematographic movement, a second scene, captured with telephoto images, structures a second striking sequence. In an autopsy room, a camera-mediated dissection is performed on a child's body, a drowning victim. We see the removal of part of the femur for DNA extraction, shots of the child's

skull, and the sound of the electric saw used for the procedure[8]. The thermal modulation of the images produced by Mosse allows us to witness the arduous process, in a sense close to the coding displayed in films with animated content or in documentaries that use partially or entirely animated configurations (Honess, 2013) to respond to sensitive viewings.

The traumatic and unbearable experience of the scene is covered by the coded access allowed by the thermal camera. In a transversal way, the effect and indexing of the image apprehended from the heat points to an exhibition that is simultaneously more testimonial and less invasive. In this sense, the approach structured by figuration in thermal capture interacts with the cinematographic image, imposing a thread of expression that artistically warns and allows watching the complex discourse. In this case, the thermal specters generate imaginary information that rebalances the thematic tension, confronting painful scenes without losing their indexing power (essentially, fraying their symbolizing effect). Indeed, by making the invisible and/or difficult visible and modulated, Mosse's thermal forms developed in narrative and cinematographic language are sources of transmissibility defined by the symbolizable gap: they show the relationship with reality that is difficult to narrate.

In this sense, balancing the interstice between documentary and contemporary installation, *Incoming* questions the role of border control agencies, which employ sophisticated military equipment and explore hypermodern surveillance technologies to produce an essentially legal-police reading (Nash, 2005) of human displacement (in search of humanitarian aid). Such agencies, e.g., Frontex in the European Union and ICE in the United States, extensively use sophisticated military technologies adapted for border surveillance. In the case of Frontex, which specializes in using drones for aerial coverage, as Saugman (2019) exposes, multiple reports have exposed the problematic relationship between the agency's mercenary activities and European funding.

In Mosse's film, there are shots of faces, but they are all protected by thermal disfigurement. The subjects are seen in the "fantasy of a panoptic visibility of the world" (Lavoie, 2020) but also structured in a "denaturalized" image that, in a way, implies an unconventional contrast of reality. This outline is partly an excavation or deepening of the visible/invisible dynamic structured in the film – which is also found in the mass exodus of refugees and immigrants, known through statistics and very little through personal narratives.

[8] The viewing of the film available in live narration by the director mentions that the victim is a seven or eight-year-old girl who died along with other immigrants in a multiple drowning off the coast of Greece (11 min 25 sec). Retrieved from https://www.youtube.com/watch?v=3iWMihBtmuk-Live Narration of *Incoming* by Richard Mosse

Figure 2

Richard Mosse – Photogram of Incoming. Video installation on three screens (7.1 sound, 52 min 10 sec)

Note. Source: *Incoming*, Richard Mosse[9]

[9] Digital chromogenic print on metallic paper, #281 (2014-2017). Retrieved from http://www.nga.gov/exhibitions/2019/richard-mosse-incoming.html

In the body of the film, the following sequence is images of groups of young people and children walking around the facilities and playing at Tempelhof airport in Germany. Formerly created by Albert Speers as part of the futuristic Nazi city in the 1930s and later abandoned for several decades inside a civic park in Berlin, it is now, from 2007, converted into an improvised shelter for refugees. It is the only moment in the film where we see domestic footage shot close by and with the people's permission[10].

[10] According to Richard Mosse, the scenes were recorded for two weeks in the local structure, with notices about the days and times of filming, in addition to the authorization of the immigrants (41 min 13 sec). Retrieved from https://www.youtube.com/watch?v=3iWMihBtmuk

Scenes appear of children playing in the spaces of the place, in addition to the daily work of immigrants, in an attempt to organize an environment that does not have the minimum conditions for survival, without electricity and basic sanitation. Located in the middle of a tree-lined area of a park in Berlin, the site has an impact due to the relationship between the ruins of the airport, with the landscape dimension associated with the controversial public and political use of the former "topography of terror" (Huyssen, 2014) in Berlin. With authorization to record and with the thermographic camera close to the people, the film excerpt presents a significant relationship between memory, absence, and invisibility. It is the new migrants within Europe that, after Auschwitz, show that governments still do not know what to do with the massive populations of refugees. Within these critical and forceful sequences, the film produces the possibility of debate

on the politics of meaning, the imaginary of belonging (the visible and invisible migratory bodies when inside and outside borders), and the ghosts of European history – especially the German one.

As the entire film is about the human body and the relationship between (protected) identity and identification (reduced to thermal flux), the images taken in the former airport facilities mirror-inverted projections of the relationship between surface, transparency, and biographical (non)detection. The artistic appropriation conceived by Mosse breaks with the militarized proposition initially understood in the use of the camera and the "cold images" generated from biological heat. When looking for closer views of the bodies and faces of the immigrants, the camera becomes an *a priori* mediation that, on the one hand, extinguishes or attenuates the physiognomies and, on the other hand, accentuates the invisible characteristic of the refugees, placing them as spooky and disturbing figures.

In the case of immigrants, who seek the borders of Europe to get help that only arrives in a precarious or emergency way, distancing (from bodies and people) is one of the most defining characteristics because, as Tramontana (2018) writes, successive migratory crises have been gaining the western agenda only when the catastrophe acquires epic proportions[11].

The last movement of the diegesis deals with the scenes captured when crossing the Sahara Desert in the Libyan region and with images taken (Figure 2) in the Port of Calais in France. The convoys of immigrants that cross the desert region in large trucks for days are displayed in images captured from a long-range, again using thermal cartography to structure the mass exodus. The legibility of the images produced, always with a hypnotizing and spectral effect, in a slow and grandiloquent action of temporality, allows us to reorganize the perceptive sense, re-dimensioning the look on the biological spectrum and the founding subjective (dis)identification (how we structure and access narratives about migratory bodies).

According to the images of the departure of the convoys from the city of Agadez, in Libya, and the trucks full of people, in Mosse's report in the live narration[12], it is known that most of them will not be able to stay in vehicles, which do not stop if someone falls from them). The images are impactful by how human bodies are visualized (similar to hordes of ghosts expanding toward a violent destiny). In Mosse's artistic proposal, the dystopian scene merges with the iconographic and photojournalistic reformulation commonly associated with migratory flows. In this sense, in the final section of the diegesis, the apparatus with a military purpose reveals the legal-police intentionality of the European border control regime, which sells rescue images[13].

[11] For immigrants and refugees who die practically daily in the Mediterranean and reception camps, most bodies are not recovered; The author shows that the reported cases of drowning immigrants are much lower than the number of people who disappear along these maritime borders.

[12] Director's live narration retrieved from https://www.youtube.com/watch?v=3iWMihBtmuk (50 min 02 sec).

[13] According to Hussein Baoumi, Amnesty International's Libya researcher: "European countries are cooperating and are directly complicit in the military approach to displaced people. They want to separate themselves from the dirtiest aspects of containing migrants. It doesn't matter." Retrieved from https://www.eldiario.es/desalambre/drones-frontex-funciona-maquinaria-europea-devuelve-migrantes-libia_130_8528417.html.

Mosse's film thus reorganizes the aesthetic experience into the field of the political image yet to be made. It points to the duality of the machine – of restrictive and military technology equipment – highlighting the disproportionality of the observation and the impeded dynamics between *territorialism* and displacements. Migrant subjects assumed as specters "without real consistency and an individual face" (Lavoie, 2020), are captured in *Incoming* as they move into the biopolitical question: they are seen as targets in an enemy lens, reduced to their thermal traces unreachable by the naked eye, and raised to the gesture of having their bodies exposed (and their identities made invisible). Ultimately, the film's migratory subjects are reborn in the artistic appropriation that highlights in narratives of heat how surveillance technologies show the geopolitical disorganization of the refugee issue within European states (in a Europe that, according to history, should be the first to know how to host).

In a certain way, in the milky and ghostly gravity produced by the film, the "real" bodies assume themselves in front of a figuration that overcomes the military detection of the costly apparatus. The specters that cross the borders to Europe, as in the poem by Niki Giannari (Didi-Huberman & Giannari, 2017), become, individually and collectively, "creatures that ask for passage" and, also, they remind, when asking to enter, the commitment and co-responsibility between "persecutor" and "persecuted."[14]

[14]"With a desire\that nothing can conquer, neither exile nor confinement nor death\orphans, weary\ hungry, thirsty, disobedient and obstinate, secular and sacred, arrived, undoing nations and bureaucracies\ and pose here, they wait and ask nothing\just pass" (Didi-Huberman;Giannari,2017).

THERE WILL BE NO MORE NIGHT (ÉLÉONORE WEBER, 2020)

Filmmaker Éléonore Weber's documentary comprises material recorded by the US and French armies in operations to track, identify, and execute targets from remote areas in Afghanistan, Iraq, and Pakistan. Available on the internet (appearing in the film's credits), the recordings used by the filmmaker are thermographic images visualized in the high-tech helmets used by military pilots, who have no other vision than those produced by technological devices.

According to the filmmaker[15], most of the videos available on YouTube were posted by US Army veterans (according to the director, at 24 min 33 sec, French and English videos are rare), released mainly after cyberactivism actions by WikiLeaks. The organization brands some of the materials that appear in the film and are records from various anonymous sources. The famous sequences of the American Apache helicopter, where it is possible to follow the execution of twelve people (including two Reuters journalists) in Baghdad during air strikes in Iraq in 2007, are used in one of the most critical moments of the diegesis. (We see the execution in total).

[15]Retrieved from https://www.youtube.com/watch?v=8G5yk5o9t3Q (21 min 16 sec).

Most of the records come from night missions, generally carried out in remote areas and spaces of conflict and taken at great distances by NATO fighter jets and military helicopters. They are inscribed in a deadly relationship between monitoring and elimination. Pilots use powerful thermal and night vision cameras to qualify individuals in suspicious actions by observing movement on the ground from the heat emitted by the detection. During missions, images generated from extreme ranges create shadows or visual silhouettes, transforming spaces/landscapes, people, and animals into abstract patches of light and dark, which, rather than solving, confuse identification[16].

The stained and shiny figures seem to hide an emerging phantasmagoria when seen through the thermographic camera: throughout the filmic flow, constructed with images from operations recorded by the pilots themselves (sequences without editing, derived from night vision cameras), biological traces prevail about human signs. Instrumentally, they focus on the relationship between seeing (enemies) and identifying (people), turning almost everything into a target. In a sense, they are images of perpetuators (Brink & Oppenheimer, 2012), developed in a relationship between the act of seeing and the gesture of killing. This disposition turns the generated contents, mainly in a strange and diffuse black and white, almost always presented with sound intercessions (produced by the muffled noise of the helicopters), a silent and denatured narrative, which confuses the interpretation. They generate a kind of sonic bubble, where only the sound of the propellers and the noise of the machine guns is heard, interspersed with the voices of the pilots, who find it difficult to perceive the action behind the spotlights and bright intensities – and from a universe of shadows. Due to the technical specificity of visual processing and the fact that most images are taken at night, taken at great distances, the excess light and optical scanning confuse visualization – deepening the boundary between what is seen and what can be seen and its relation to reality.

In the pilots' position, with the same visual concomitance and detection technology, in addition to the audio generated by the aircraft, the visualized specter's structure modulated images, as frightening as "beautiful as video games" (Farocki, 2013). This perspective, in a way, makes the distinction between technical processes and visual functioning coincide, producing images without a counter shot on the "border between two fields of force" (Daney, 1991)[17].

Thermal technology, which allows "eliminating the night" (Weber, 2020) and deepening the technological distances between persecutors and the persecuted, does not resist the paradox pointed out by Farocki (2013). Through the "image-machine," the disproportionality of instruments and the signs of violence are even more alarming. What emerges on the pilots' technological

[16] In the testimony of the French soldier Pierre V. (19 min 02 sec), the film's main witness, and in the voices of the aircraft pilots themselves, it is possible to follow this confusion constantly.

[17] In the final passage of the film (at 72 min 01 seconds), the director's narrative text, in addition to being beautiful and poetic, points in this direction: "More recent cameras will be able to suppress the night. Only the stars can disturb this visualization because they shine a lot (more than the exposed denatured luminosity). There will therefore be no more nights. Nor the need for light bulbs. Not far, not close. No openings, no reports. They will be images impossible to distinguish between faces, without reciprocity, without face to face" (Weber, 2020).

display transforms visual activity into *de-subjectivized* and anesthetic surfaces, protected by kilometric distance and the sonic barrier (pilots hear only the aircraft's noise and the machine gun's sound).

Figure 3
Éléonore Weber – Photogram of There Will Be No More Night

Note. Source: *There Will Be No More Night*, Éléonore Weber[18].

[18]Retrieved from https://www.youtube.com/watch?v=5CBJgANNYjE

On the border between image and ignorance, the shapes conceived in light cutouts deepen the imminent indexing, and increase, for the pilots, the commitment to prospecting and finding suspects. The surveillance program coincides with the elimination program between image, thermal index, and ignorance. In the voice of the pilots, explored in the diegesis, we observe the confusion between peasants and combatants, between weapons and tools, and between role-playing games and everyday situations – and between intentionality and representation. The modulated vision seen by the soldiers from kilometric and protected heights (Figure 3) delineates a *sign* processing field that prevents contrast with the actual vision, installing the justification of war: combat and terror. On the thermal imagery of long-range images, the reality presented in sophisticated helmets is structured in a possibility of interfering with or diagnosing the real from the representation.

The first sequences shown in the film show this: the luminous and ghostly figures that appear in the eyes of the pilots are, rather than people engaged

in different activities, characters situated in an atmosphere where everything is read in a code of violence. In the pilots' audio, the recorded conversations between the pilot and the aircraft gunner seek to diagnose everyday actions: the strange movements of vehicles, the houses generally located in rural and remote surroundings, and people's attitudes in the middle of the night. Here, the night is "opened up" by the discovery's authenticity, which considers visual exploration a suspicious way of seeing. In this sense, specters are subjects without faces, which need to be extinguished. Visuality intensified by light creates a disproportion of metamorphoses that does not eliminate the difference between the real and its double but reorganizes perception through living substances (to be killed) and suspicious ones (to justify the recording).

The pilots are confused and in a role game. They focus on potential enemies, who hide their weapons in suspicious fields and landscapes, always disguised and ready to attack. The stealthy bodies in the night, lost on dirt roads and around houses, are much more than Afghan and Iraqi fighters, characters from a video game – and a world of specters and biopower (Beiguelman, 2021). Figures, or light effects, dimensioned in terms of abstraction and biological reduction. For the pilots, the recorded images are full of disclosure and feed the paranoia of surveillance (in an imagery cloak that hides the simulation and the traces of its symbolization). Contaminated by thermal transformation, the image generated in *There Will Be No More Night* is, rather than a condition (innuendo), a content (live-action) determined to be authentic. The real transformed into surveillance and suspicion.

Contrary to what happens in video games, the technological clothing presented in the film is not based on a sensory fantasy. It is used as a breakthrough or a technical advantage (see at night), focusing reality on a biological, anamorphic, vestigial – and terribly deadly – emphasis in the military program. Its strategy of presenting itself as real, without the contrast with the visual distinction (without any division between light and dark, day and night, and between reality and suspicion), takes everything into the context of staging violence. The possibility of transforming reality, difficult and undetectable, into limiting modulations does not convey, in Weber's film, its associative and sensorial disposition.

The thermal cameras intensify the light sources and program a surveillance universe that does not make images, understanding them as covered surfaces. It presents them with openness: emancipation from their human, physiognomic dimensions, and ethnic traces. The images are transferred to the place of reality, like light specters, (in)sensitive forms displaced from their surroundings, and immersed in a context of bellicose accentuation. As Català (2012) writes,

the image is always a way of pointing out and hiding the real. This notion is erased in technological helmets, as caloric modulation projects images of "iridescent," ghostly, and luminous figures, where the real is summoned as delirium.

Twenty-four minutes into the film structure, the first sequence that shows a live execution performed from an American helicopter displays this murderous intensity. The shots are fired by the gunner from the aircraft, which matches the pilot's vision - and with the machine guns of the apparatus[19]. The essayistic and interrogative narration of Weber's text questions the use of force, the disproportion, and the inequality of technologies. We see the pilots firing until their bodies dissolve into patches of light, sprawled across the floor. The feeling is strange, as there are no murdered bodies, but specters of thermal light transformed into smears of blood on the dark ground. Pierre V., the pilot of the French fleet who acts as a consultant on some of these recorded sequences, responds to the filmmaker that, even if there is confusion, "when one starts shooting, it is difficult to stop." In this case, it is possible to listen to the pilots' audio, the sound of the helicopters' rods, and the relationship between image, performance, and violence. The scene is, in a way, marked by the distortion that exists in the technological display, which accepts the image as if it had never been encoded. The image is, here, a transparency, a disposition of approach in which each instant is a register and an index of warning.

[19] As the voice-over explains, helicopters usually have a crew of two soldiers: pilot and gunner. The gunner's vision coincides with the movement of the thermal chamber, also moving the machine gun installed at the base of the aircraft. Simple verbal commands bring the possibility of shooting.

Figure 4

Éléonore Weber – Photogram of There Will Be No More Night

Note. Source: *There Will Be No More Night*, Éléonore Weber[20].

[20] Retrieved from https://www.youtube.com/watch?v=5CBJgANNYjE

The elimination of the Reuters agency reporters appears in a different sequence, in an episode that became well known due to the material made available by an anonymous source on WikiLeaks. The filmmaker's gesture, appropriating the material and making it be viewed more than once, allows the viewer to become more aware of the killing action: the camera tripod of one of the journalists is mistaken for weaponry, and the execution goes forward. The scene shows the cadence of the helicopter and the repeated flyover until it finds the targets around a house, ending in destruction. In the action contingent, the thermal and saturated image serves the illusionist purpose: it cannot erase the difference between real bodies and spectral modulation, designating a simultaneously bellicose and ghostly identification.

Choosing to return to the material twice and making the spectator an accomplice, Weber comments in the voice-over narrative text that accompanies the sequence: "There is always someone behind the camera … there is always someone who asks permission to shoot." Pierre V., the anonymous pilot who examines some of the film's sequences, refers to this passage in particular: "The more the pilot can see, the more risk there is." In the sequence below, structured from the fifty-two minutes of the filmic flow, we observe two aircraft circling, with the thermal resource and the possibility of zooming, a group of individuals digging a part of the ground. Positioned in a circle, crouched, and making an effort to open the ground, they are accompanied by helicopters in the distance (they do not realize that they are being filmed). With the pilots speaking, who react when there is an impactful explosion, we witness the power of elimination. In this case, a crater is formed because of what is supposedly the deflagration of a homemade bomb that was on the ground. There is rejoicing in the pilots, who are not the perpetrators of the execution, but who exchange enthusiastic comments about the explosion. On the open ground, around a large opening, nothing is left but debris from the blast (shed as shards of light). An individual approaches puts his hand on his head, and searches among the victims' signs.

The power of execution and the logic of biopower (Beiguelman, 2021) return in the set of later files and characterize the final passage of the film. The luminous halos return under the lens of the technological helmet, and we watch more images of elimination. After several shots had eliminated his companions, we observed the death of a man crouched and looking for protection behind a vehicle in the middle of a field in a remote area. The scene is brutal because the subject crawls, wounded, and the machine guns spare no effort: his body is reduced to a patch of light, after which a large cloud of dust caused by the artillery fire finishes dissipating. There is no commentary among the pilots. Just silence. Furthermore,

the sound of the helicopters also captured on the desert floor (now closer to the targets). The luminous dust as a piece of war recalls the logic of the Nazi extermination, pointed out by Primo Levi in *The Drowned and the Saved* (1990). The Nazis forbade their soldiers to call the funeral remains of the concentration camp "corpses" or "cadavers." They designated the dead as *figuren*, final, skeletal forms scrutinized by the industrial killing mechanism. Here, the figures are destroyed and become luminous spots. Incandescent puddles that, for a few moments, before disappearing on the dark ground, can only be seen through the pilots' technological display.

The last scenes, made with domestic archives, produce a figurative fracture (a devolution of the image) in a film with no bodies and physiognomies but contours and dissolved profiles (atrocious luminous spots that spread on a floor of death). At that moment, it is possible to perceive the contrast and the uncomfortable compensation with another body, that of the spectator. The sayable and unspeakable repair of the last images, saved by the organization of a human visuality that contains faces, physiognomies, bodies, and clothes (garments), safeguards and challenges the subsequent violence. By the filmmaker's choice, bringing archives of records of homemade scenes made available by the military, we see happiness, audibility, and a world without pain gathered. Totally different from the sequences produced by thermal cameras, which open up other reciprocity – non-existent, unequal, and opposite.

As Comolli (2006) writes, we are, therefore, facing the politics of the image. The visual enunciation that, by triggering the mixture between the living and the dead in an unbalanced and atrocious *continuum*, does not relate the deceased to their human likeness. In Weber's film, this happens with the possibility of being urged by the ripping and the luminous stain that dissolves the traced figures without any possibility of projecting oneself into them; in the filmed body, which, unlike the bodies produced by the Nazi concentration camp, is neither a corpse nor a figure, neither a subtraction nor a statue (or a body in pain); just a dissolved sign, an imperfect blur, destined to have no inscription.

A stain, circumstantial and provisional, which is no longer a disturbance. It is no longer an image, which cannot be a thing and a portrait to be seen. Just disappearing. Resigned, sliding, and residues of elimination.

FINAL CONSIDERATIONS – BIOMETRY AND HEAT NARRATIVES

The artistic dimension of Richard Mosse's work is processed in the redefinition of the images generated by the military surveillance and documentation apparatus: a camera that intentionally captures camouflaged bodies in the landscapes

and reveals them from primordial biological traces. In cinematic dynamics, Mosse exposes testimonial images (but testimonials based on the conceived disfigurement) that narrate visual monitoring and the anonymized presence of immigrants. Such disfigurement, intended as an original aesthetic effect, calls into question the traditional typology associated with the theme. Often captured in the dark, the images shock by fraying the *modus operandi* of photojournalistic images commonly used to address the subject (Chouliaraki & Tijana, 2017; Santos & Teixeira, 2019).

Mosse's work, in effect, inscribes these images, most captured from a great distance, in an aesthetic and analytical dimension that shows how the epistemic figure of the refugee in the contemporary world is seen mainly from the perspective of the biopolitical logic of surveillance, impediment, and power.

Mosse's film, in effect, works with aesthetic experience and figurative modulation in images that undermine the "verification" of the surveillance structure and the will to detect. The aesthetic transformation – in thermal specters – carries on its surface an image of a more substantial, political content, which allows knowledge (biographical, subjective) to be traversed. Outside the image, on the freer side of "clothing technology," the duality of the machine scrutinizes a path to be highlighted: the heat takes care of observation, and observation is a postponement.

In this sense, the image is an imminence, a camouflage that deprives surveillance of its genealogical and machinic purpose. In artistic fraying, heat narratives disorganize the experience of representation from the singular aesthetic experience (heat as a source and as a modular interstice).

The caloric modulations built in *Incoming* create vanishing points that combine deeply dehumanized images or humane in their elemental appeal (biological data). The bodies are at the same time index and metaphor (Lavoie, 2020), showing the political subjects detained in refugee camps and in the attempt to cross European borders. Therefore, the biological intimacy impossible to be seen by the human eye serves as a central element in the filmic organization, revealing the work of the body (and often the despair and pain) underneath the images of the subjects that cross borders.

As Demos (2013) writes, the image of world migrants often goes through an alarmist circuit and a discourse of sealing borders. Technological devices have gained increasing sophistication with all military technology, being able to detect bodies at a great distance, but not being able to activate and return us to the position, uncomfortable and critical, in the face of the exposure of people (reduced to thermal signs and media and photojournalistic images).

On the other hand, filmmaker Éléonore Weber's film produces a different articulation of the use of thermographic narrative (from military files recorded by aircraft pilots in surveillance and combat missions). Similar to animation images, modulated by the alternative and symbolizing relationship of visuality (and also harmful and *scopophilic* of the audience), Weber's film is composed of the (non)neutrality of the camera, which, in its desire to see/predict, pursue and execute, terrifyingly updates the dynamics of the elimination of people.

The filmmaker's gesture, choosing known files that circulate without restriction on the internet, acting with texts, speeches, and sequential repetitions of the material found, highlights the murderous visuality that engenders complex assistance and frightening perception. The possibility of "seeing everything" of the pilots' actions, and, at the same time, the easy deception between figures (or specters) and people (or threats), builds a committed relationship with reality, seen through the visor or technological helmet of the pilots (chosen among the best gamer shooters). The visual forms qualified by the thermal camera, rather than aesthetic modulations, are perceived as a technological opening (an effect of panoptic advantage, which presents an "apparent and hidden world" transported into the real universe. Such a procedure induces a determined vigilant interpretation of the pilots, voracious for distinguishing threats (and for killing)[21].

[21] Introducing "an eye of an eyelid that never closes. An endless eye" (Weber, 2020).

Unlike Richard Mosse's video installation, which is constructed without narrative accompaniment or dialogue, Weber's work explores the cold neutrality of the pilots and their *in situ* commentary. He tries to interpret the images generated by the camera, which coincide with the pilot's vision and the machine guns and weapons of annihilation.

The two works, within their distinct visualization procedures and processes (multi-screen installation accompanied by a photographic series and documentary that feeds on material accessible in video recorded by pilots), are aesthetic experiences that circumscribe surveillance images, and the discussion about their placement (deadly and compromising), in cinematographic fraying. Together with the narrative and poetic text produced by Weber, sometimes comparing the video essay format and Mosse's immersive multi-screen experience, it is possible to observe the gamification of contemporary war and the panoptic and hegemonic structure that transforms the image into a police force of violence. M

REFERENCES

Beiguelman, G. (2021). *Políticas da Imagem: Vigilância e Resistência na Dadosfera.* Ubu editora.

Brink, J., & Oppenheimer, J. (2012). *Killer Images. Documentary Film, Memory and the Performance of Violence*. Columbia University Press.

Català, J. M. (2012). *El Murmullo de las Imágenes*. Shangrila.

Chouliaraki, L., & Tijana, S. (2017). Rethinking media responsibility in the refugee crises: a visual typology of European news. *Media, Culture & Society*, (39). http://journals.sagepub.com/doi/abs/10.1177/0163443717726163.

Comolli, J.-L. (2006). A última dança: como ser espectador de *Memory of the Camps*. *Devires, 3*(1). http://fafich.ufmg.br/devires/index.php/Devires/article/view/261.

Daney, S. (1991). Montage obligé. La guerre, du Golfe et petit écran. *Cahiers du Cinéma, 442*. https://www.cahiersducinema.com/produit/serge-daney/

Demos, T. J. (2013). *The migrant image. The art and politics of documentary during global crisis*. Durham University Press.

Didi-Huberman, G., & Giannari, N. (2017). *Pasar, cueste lo que cueste*. Shangrila.

Farocki, H. (2013). *Desconfiar de las Imágenes*. Caja Negra.

Honess Roe, A. (2013). *Animated Documentary*. Palgrave Macmillan.

Huyssen, A. (2014). *Culturas do Passado-Presente: Modernismos, Artes Visuais, Políticas da Memória.* Contraponto.

Jones, R. (2016). *Violent borders: refugees and the right to move*. Verso.

Lavoie, V. (2020). Qual visualidade para o êxodo em massa. *Revista Interin*, *25*(2). https://interin.utp.br/index.php/i/article/view/2400

Levi, P. (1990). *Os afogados e os sobreviventes.* Paz e Terra.

Martin, N. (2019). As index and metaphor: Migration and the Thermal Imaginary in Richard Mosse's *Incoming*. *Culture Machine, 17*. https://culturemachine.net/vol-17-thermal-objects/as-index-and-metaphor/

Mosse, R. (2017). *Incoming*. Mack.

Nash, M. (2005). *Inmigrantes en nuestro espejo: inmigración y discurso periodístico en la prensa española*. Icaria Antrazyt.

Santos, A. C. L., & Teixeira, R. T. (2019). Sobre paisagens conhecidas e corpos anônimos: memórias fotográficas do fluxo migratório no Mediterrâneo. *Revista Rumores*, *13*(25). https://www.revistas.usp.br/Rumores/article/view/148356

Saugmann, R. (2019). Military techno-vision: Technologies between visual ambiguity and the desire for security facts. *European Journal of International Security, 1*. Cambridge University Press.

Snow, J. Richard Mosse on the refugee crisis. *Channel4.com*. https:\\www.channel4.com\news\richard-mosse-on-the-refugee-crisis

Tramontana, F. (2018). The conversation: migrants have crossed the mediterranean for centuries but they used to head from north to south.

The Conversation, *2*(1). https://theconversation.com/migrants-have-crossed-the-mediterranean-for-centuries-but-they-used-to-head-from-north-to-south-97287

Weber, E. (2020). *There will Be No More Night*. https://www.youtube.com/watch?v=5CBJgANNYjE.

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