are abusing and threatening honest workers who try to come into our town to spend their wages' (de Rijke 2013). Tensions and frustrations arose, and most early protesters left the area.

* * *

Gas developments in slow-paced rural regions commonly introduce the treadmill of global capitalism (Eriksen 2018). A reclusive sheep farmer I met who visited his local small town maybe several times annually was dedicated to his farm, including its rare plants. His soils were sandy, and parts of the farm were covered with a type of forest no longer prevalent in the region. Straight through his farm, the gas industry built a major corridor that connected the gas fields to the processing facilities and the LNG export terminals on the coast some 500 km away. The 100-m-wide corridor contains a major underground gas pipeline, water pipeline and associated infrastructure.

We drove through the forest in his rusty farm vehicle and suddenly came upon the corridor: enormous trenches, cranes, bulldozers, trucks and men from around the world in hard hats and hi-vis clothing. When we got out of the car, the bare-footed farmer just stood silent in the sand.

I sensed bewilderment, but I later learned about his mixed emotions: anger, disbelief and a sense of resignation. The physical and metaphorical connections were apparent in the barren pipeline corridor, where trees would never grow again. The reclusive sheep farmer had become enmeshed in an all-inclusive and four-dimensional global industrial energy network: connected vertically to the subsurface geology, horizontally to the world at large and temporally in a way that made future aspirations more challenging to articulate. With its attention to the specificities of local energy cultures and the *longue durée* (Nader 2013), anthropology is well placed to address these human and spatio-temporal dimensions of the global energy network.

* * *

Not all feel these developments to be detrimental and some benefit significantly from fracking initiatives. Someone with little education had set up a successful earth-moving business to service the rapidly expanding industry. There was enormous money to be made. Town hotels used by industry workers were booked out for years in advance and house and rental prices skyrocketed.

Some entrepreneurial farmers also embraced the opportunities. A farmer close to an industrial water treatment facility negotiated access to the treated water, and the industry even funded some of the infrastructures he required. Formerly reliant on rainfall, he could irrigate cotton and vastly increase his profits. Agri-gas fields thus emerged on the global treadmill, where farming is represented as 'the business of turning water into money' (de Rijke 2018).

* * *

Although representing society's 'vital essence' (Hornborg, 2013), energy has been largely rendered invisible to its consumers. In that sense, the global energy crisis is a crisis we need to have. It affects everyone, from Australian farmers in rural gas extraction regions and the urban poor worldwide to corporate executives in Houston and Beijing and the EU headquarters in Brussels, but it does so unequally.

The current crisis is symptomatic of the hyperconnected, fast-paced but unstable nature of the overheated Anthropocene. Deregulation and corporate hubris introduced new vulnerabilities to energy flows that span the globe in myriad ways. We are producing more energy than ever, but many have paradoxically never found themselves so short of it.

Anthropologists need to play their role in untangling these energy contradictions and the forces affecting potential energy transitions. Eriksen (2018) pointed to the links between runaway globalization, high-energy treadmill capitalism and climate change. The energy crisis is more than a distribution problem in uncertain times and transforming society's vital essence unavoidably produces significant existential challenges to reconfigure human life on a finite planet. ●

Visual trust

Fake images in the Russia-Ukraine war

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The anthropology of images studies how we interact with and through images, understood not only as signs or representations but also as social agents endowed with, at least potentially, intense subjectivity. It furthermore analyses how people from different sociocultural spheres conceptualize and define images, whether material, bodily or mental, to use Belting's (2011) terms. One of the critical issues the anthropology of contemporary images must address is that of *false* images, or, in other words, that of the visual fake.

False images

False images are nothing new; they are probably as old as images themselves. In the Western tradition, the debate regarding the falsity and deception of images has given rise to countless discussions in the fields of religion, art and science, among others.[1] Yet the polemic surrounding fake or misleading images has intensified recently (Farid 2019; Pilipets 2019). This is partly due to the development of technologies for designing, processing and disseminating digital images, mainly photographs and videos (Mitchell 1994). We are increasingly aware that many images that 'look like' photos – and hence are images with a supposed reference value – are not (deep-fakes). These images are often so plausible and realistic that their credibility cannot be judged on aesthetic or formal grounds alone.

The question of fake images is set within a global context characterized by mistrust in welfare state pillars (such as the party system or legacy media) and the big tech firms that control our lives through digital services. Images are charged with being agents of disinformation and actively engaging in the collapse of clear and objective benchmarks to gauge reality, often referred to as 'post-truth' (McIntyre 2018).

From my point of view, however, the problem with the current debates around image manipulation is that they often lapse into over-simplification and generalization. Not all fake images are agents of disinformation; as I will show, there can be fake images that do not fool anyone. Regarding reception, individuals may adopt different ethical stances concerning 'false images' depending on their sociocultural background, expectations and personal intentions, and the concrete situations in which the interactions with these images occur. Therefore it is vital to tackle the study of false images from a bottom-up, comparative and qualitative perspective and to analyse *ethnographically* how people experience, assess and conceptualize visual deception today.

To respond to this challenge, in 2021, I initiated a European Research Council (ERC) project on forgery in scientific, religious and social images.[2] It aims to carry out an online and offline comparative ethnography to understand better how individuals from different social and cultural contexts relate with and through images in terms of (mis)trust. The project integrates the active use of visual research methods by drawing a comparison between religious, scientific and social images. It will lead to several films, in addition to articles, webpages, books and exhibitions, in line with public and multimodal anthropology.

In this article, I will address these questions by analysing three images circulating in recent months concerning the Russia-Ukraine war. Through these reflections, I will introduce several theoretical concepts employed in the above-mentioned project, such as 'iconic verification', which refers to the procedures performed to assess the reliability, accountability or forgery of images. I hope to be able to present empirical results when the fieldwork is done.

The anticipatory image

On 3 February 2022 (i.e. 19 days before the official start of the Russia-Ukraine war), a US State Department spokesperson confirmed that Russia was preparing to take a further step in the so-called 'war of disinformation and fake images'. According to Ned Price, US spies in Russian military ranks had learned of the Kremlin's intention of releasing a propaganda video simulating a Ukrainian attack on pro-Russian areas using Turkish-made drones. The purpose behind this visual-contamination gambit would be to impact international public opinion to take the Russian side and justify a military response against Ukraine. The Pentagon said the hypothetical images could show 'corpses', 'mourners' and 'houses on fire', all orchestrated with hired actors.

The particularity of Price's announcement was its predictive nature. Remember, the statements were made when the war was yet to begin. The Pentagon spokesperson did not claim that these fictional images were already circulated by the media or had been filmed and stored. He said only that the Russian army *might have* the intention of making and releasing them shortly.

So, if the images did not exist, why talk about them? The American government argued that the briefing was designed to forewarn the population and brace them for the conceivable appearance of these phoney shots. They also said that revealing these disinformation attempts made it very unlikely that these images would ever be made.

Unfortunately, footage showing massacred civilians and devastated towns did end up making the rounds, not as fictional imagery designed to portray a potential future, however, but as a testament to a real and present conflict. What is interesting about this episode is that an image that was non-existent at the time was used as a *probatory argument* of the adversary's malicious intent. It is almost ironic that images no one had seen could be presented as *visual evidence* of the enemy's hidden agenda.

Price's allegations reveal how images are increasingly presented as *anticipatory signs*, used to visualize not what has occurred but what may happen in the future. This may seem somewhat counter-intuitive to us. Western tradition has been based on the representationalist paradigm, in which images are understood as copies or representations of the external world. This paradigm took on new meaning following the appearance of photography at the end of the 19th century, which was presented as a fingerprint or index of reality. Yet the representationalist paradigm cannot capture the complexity of the significance of images and, specifically, the myriad of ways they relate to time and imagination.

I want to end my comments regarding this news story with a reflection on the performative nature of images. The core aim of Price's announcement was 'to prevent the circulation

of false images'. By disclosing the possibility of fabricating these types of pictures, Russia would no longer be interested in broadcasting them as they would have been rendered ineffective. Yet, instead of preventing the appearance of misleading images, speeches like this also *make them real*, perhaps not as material images but surely as mental images that exist in our consciousness and that may impact our way of viewing and imagining the world – in this case, the way we conceive the conflict between Russia and Ukraine. In short, it is almost a paradox that the person who criticized the potential future existence of these fictional images was (perhaps involuntarily) the one who *created them*.

This example sheds light on how mental images are also evaluated in terms of visual (mis)trust and the intimate relation between 'image' and 'imagination', two concepts sharing the same linguistic and conceptual origin. Price's description of these potential images aims to spark acts of political imagination in the audience. When he describes these non-existent pictures, he prompts us to see them internally: that is, in our consciousness. The internal images we make from his words are generated based on our visual memory and inner capacity to invent. In other words, they are instances of what I called elsewhere 'visual creativity' (Canals 2017). Yet as Price defines these eventual images in referential terms (he states that what they might show could happen in the real world), we cannot prevent ourselves from evaluating their reliability and trustworthiness as anticipatory visual signs.[3]

All this leads us to conclude that the level on which the war on visual disinformation is fought is no longer that of existing images but that of the *possibility* of future images. It is no longer necessary to have visual proof to attack the enemy; it is enough to say it intends to produce visual fakeries. Images, like actions, are bearers of purposes in the same way that purposes spark images, understood as acts of the imagination. Images, as anticipatory devices, are not only historical artefacts but also *make* history.

Is Paris burning?

Paris brûle-t-il? (1966) is a French-US film directed by René Clément that tells the story of the liberation of Paris by Allied troops in 1944. One of the film's high points is when Hitler, foreseeing the imminent defeat of his army, orders General von Choltitz to level the most iconic places in the French capital before capitulating. Von Choltitz, however, disobeys the Führer and surrenders unconditionally, thus preventing an unnecessary massacre of the civilian population and the irreversible destruction of the city's artistic and architectural heritage. This episode, the historical accuracy of which is still disputed by specialists today, is part of the French national imaginary and is popularly known as *La nuit où Paris a failli sauter* (the night Paris almost went up in smoke).

Paris was not flattened that day in 1944. Still, now, 78 years on, European history has given us unexpected and disturbing images of the French capital succumbing to the bombs of Vladimir Putin's army. The photos in question were disseminated on social networks via the Ukrainian Defence Ministry's Twitter account on 11 March 2022. The video, seemingly filmed on a mobile phone, initially shows a happy young tourist who, after looking at the camera, leaps back in alarm when there is a terrible explosion near the Eiffel Tower. We then see the Opéra district being bombed amid the deafening sound of sirens going off, people yelling and children crying. The clip, just 30 seconds long, ends with the following message: 'Just think if this were to happen in another European capital. We will fight till the end ... If we fall, you fall' (Fig. 1).[4]

These images released by the Ukrainian government are manifestly false, and the people who made them were not trying to pass them off as genuine. The text at the end of

1. Consider, for example, the charges of iconoclasm or idolatry that have featured in the history of religion. The use of images in science has also elicited considerable controversy, essentially around the idea of 'evidence'.

2. The main objective of this ERC project is to explore how people from different countries and sociocultural milieus interact with and through images in terms of trust and distrust, and how visual forgery and falsity are crafted, intensified, circulated and assessed. 'Visual trust' aims to draw a comparison between religious images, social images and scientific images. It is based on several ethnographic investigations to be conducted in Europe, Asia and America, both online and offline. Its ultimate goal is to elaborate, through visual means, a general theory of (dis)trust in images in the contemporary world. For the general objectives and methodology of this ERC project, please see Canals (2020). You may also visit the website of the project: https://www.visualtrust.ub.edu.

3. Dreams constitute another good example of the trust in mental images. In psychoanalysis, dreams may be trusted as reliable visual signs of internal mental disorders. In the context of shamanic rituals, dreams are often evaluated in terms of trustable (or deceptive) signs sent by spiritual beings. In all cases, dreams undergo a process of iconic verification.

4. See https://tinyurl.com/ParisAttack2.

5. http://tinyurl.com/stagedkilling.

Belting, H. 2011. *An anthropology of images*. Princeton: Princeton University Press.
Canals, R. 2017. *A goddess in motion: Visual creativity in the cult of María Lionza*. Oxford: Berghahn Books.
— 2020. Visual trust: Reliability, accountability and forgery in scientific, religious and social images *Anthrovision* 8(1). https://journals.openedition.org/anthrovision/6945.

the video makes clear that, despite the realistic styling of the footage and the profound effect of truth it has on the viewer, the alleged Russian bombing of Paris is nothing more than an artefact of visual manipulation designed to raise European awareness and pressure the European Union to step up sanctions against Russia or help the Ukraine army militarily. Unlike the images we see on television news shows, the acknowledged purpose of the staging was not to report what happened but to fuel the viewer's imagination to persuade them of the *plausibility* of the fictitious events that the images depict becoming *actual* historical episodes in the future.

The existence of this government-backed video and the fact that it went viral on social networks provide insights into the use and significance of images in our time. For example, it has repeatedly been claimed that the Russia-Ukraine war is being played out on the battlefield, using misleading images through disinformation. However, as I said at the start, not all fake photos are fake in the same way. Indeed, there are fake images that, when you look at them properly, do not mislead because they do not pretend to be authentic. Such was the case of the Russian 'attack' on Paris. We could say that these images were fake because they had no referential value: Russian troops did not attack Paris, and there were no explosions in the Opéra district or around the Eiffel Tower. However, it would be wrong to accuse them of being agents of disinformation or of maliciously disseminating fraudulent content.

The key is that the video makes plain its goals and constructed nature and disassembles the visual hoax immediately after presenting it. Had the images been circulating on social media without the explanations at the end or with deliberately false text (saying that the events shown had happened in the French capital), they would have *become* fake. This leads us to conclude that the falsity of images depends not (or, at least, not only) on what they show but above all on the overall 'semiotic whole' (Ledin & Machin 2018) they are part of and on the specific relationship that we establish with images in each context. These semiotic intersections between images, texts and sounds forge, at least partially, the way we assess images regarding trust and mistrust. In this case, the false image avoids deception by adopting a reflexive stand: namely, by explaining *its inner process of genesis through text*.

Should these images, therefore, be taken as 'real'? No, not that either. The footage of the fictitious attack on Paris cannot be considered true or false. That is because the realm it moved in was not one of facts (what has happened) but one of possibility (what could happen).

What we call 'the visual fake' is more an event resulting from a specific relationship with images than a property or quality intrinsic to images. Therefore, as anthropologists, we cannot study (false) images per se as abstract entities but have to assume a relational, contextual and processual analytical perspective. In this regard, and since the assessment of images in terms of trustworthiness, reliability and deception forms part of our day-to-day experience, the relations of trust and mistrust that we establish with images can be analysed from the perspective of what Lambek (2010) calls 'ordinary ethics'. Indeed, we constantly approach images from ethical stances (we ponder whether they are correct, deceptive, offensive, etc.) and use them regularly for undertaking actions and weaving relationships with others with an ethical dimension.

Iconic verification

I want to end this text with a comment on the concept of 'iconic verification'. This refers to the standards used to assess the reliability of images (or, inversely, to spot the visual hoax). We constantly engage criteria of this type when looking at images, even subconsciously. When we see an image (especially one with an allegedly referential value), we assess whether it is honest or misleading and whether or not we can trust it for knowing the world or communicating with others. Certain institutions also have regulated codes of iconic verification. Documentary photography festivals, for example, have protocols for image authentication, such as examining the raw file or reconstructing the image production conditions (more on this below). In the scientific field (astrophotography, media images, satellite photos), the images published in articles must be cross-checked using visual tracing mechanisms that can make explicit all the devices and procedures used to produce the pictures.

Iconic verification is at the heart of the debate around the images relating to the war in Ukraine. One example: on 7 April 2022, the Russian army uploaded a video to Telegram that purported to show Ukrainian militia using mannequins to stage war casualties. The purpose was to produce fake images showing the supposed horrors of the Russian attack on the civilian population. The video did indeed show two men handling a dummy. As in the first news story analysed here, we see one side accusing the other of producing false images. However, this accusation was based not on the intention of producing future images but on already-recorded footage acting as visual proof or evidence.

Days later, the video was proven to have been filmed not in Ukraine but in Saint Petersburg (Russia). One of the participants in the filming revealed it, as the Euronews channel reported in its news round-up on 8 April 2022.[5] The mannequin was filmed as an actor's double for a fall from a building in a television series (Fig. 2).

There are two fascinating aspects to this story. The first concerns what I would call the 'fake fake'. The pro-Ukrainian media outlet wanted to expose as false the Russian news story supposedly revealing the misrepresentation by the Ukrainian militia (using mannequins to simulate Ukrainian civilian deaths). The purpose of the dummy in question was not originally for it to be taken as a real person (or, better said, it was, but in the realm of television fiction, not documentary). This semiotic maze of fakery layers illustrates the relational and contextual dimension of images. Images are perceived as true or false not only by what they show but also in their relationship with other images.

Secondly, this episode is a further example of the efforts at work today to establish benchmarks and protocols for image authentication, especially around photos and videos of current affairs. But what does it mean to 'authenticate' an image? What procedures can we follow to spot a visual misrepresentation? The problem is methodological and ontological, related to how we assess images and *what* we understand by a true or false image.

Iconic verification processes within the information field are generally based on the principle of visual traceability – again, an inheritance of the above-mentioned representationalist paradigm. This holds that authenticating an image involves reviewing its social life or its 'iconic path' (Canals 2021): from genesis to the context of its reception via possible changes and circulation contexts. In these cases, the work of iconic verification is essentially retroactive.

The clearest example involves 'image forensics', or specialists in ascertaining the changes made to digital image codes using image editing software. These digital image archaeologists aim to uncover the 'original' image: in other words, the equivalent in digital photography to the negative in analogue pictures. In classic photography, the negative was considered the footprint of the encounter between the person taking the photo and the person appearing in it. This initial contact would certify or authenticate what the image represented. This model of iconic verification survives in our digital world: authenticating an image still largely involves restoring the poietic event when, allegedly, reality *became* an image.

Fig. 1. *Two still images from the hyperrealist video made by the Ukranian government showing what an attack on Paris by the Russian army might look like.*

Fig. 2. *Still image of a video that initially appeared on Telegram showing two men manipulating a mannequin. What is this image a proof of (if it is a proof of something)? Note that the warning signal has been added later by TV channels.*

—2021. The intensive image: Transculturation, creativity and presence in the cult of María Lionza. *HAU* 11(1): 202-2017.

Farid, H. 2019. *Fake photos.* Cambridge: MIT Press.

Lambek, M. 2010. *Ordinary ethics: Anthropology, language, and action.* New York: Fordham University Press.

Ledin, P. & D. Machin. 2018. *Doing visual analysis: From theory to practice.* London: SAGE.

McIntyre, L.C. 2018. *Post-truth.* Cambridge: MIT Press.

Mitchell, W.J. 1994. *The reconfigured eye: Visual truth in the post-photographic era.* Cambridge: MIT Press.

Pilipets, E. 2019. Between bullshit and faketuality. *Conjunctions. Transdisciplinary Journal of Cultural Participation* 6(1):1-18.

This is not the only model we can use to verify all photographic images, simply because it is often impossible to restore the moment of genesis of the image or analyse the computer-based changes it has undergone in its life. One of the most critical mechanisms in iconic verification is trust in whoever sends or forwards the message: we tend to be confident with an image if we think the party who sent it to us is honest. This is what I call 'the chain of visual trust'. Let's say that the Euronews story on the fake Russian story about the (allegedly) staged Ukrainian video brought to light a visual misrepresentation. It is because we trust Euronews more than the pro-Russian media. Yet, hypothetically, these images from Euronews could also be bogus, as could the computer programs dedicated to drilling down on tampered digital images. Therefore I hold that our relationship with images often has more to do with the principle of trust than knowledge (even though the two are intrinsically related). Indeed, we must trust (some) images to live in the world and communicate to others despite often *not knowing* how they were made or how they reached us.

Conclusion

These examples point to the centrality and complexity of debates around false images in the contemporary world, especially within the Russian war on Ukraine. From a broader perspective, they show the inner semiotic instability of images, which can be unexpectedly flipped to change meaning and function abruptly. Indeed, images can be revealed as fake when we think they are true, and they can betray, mislead and deceive us when we least expect it.

Yet images are also necessary companions for our day-to-day life. We constantly learn from images and use them to communicate with others and establish affective ties with them. Our stand towards images constantly switches from trust to mistrust, to be tackled from a relational and contextual perspective in very different degrees and modalities.

Anthropology of visual trust shows, among other things, how these ethical evaluations of images occur and to what actions they lead. It also strives to find experimental methodologies for analysing them ethnographically. This research
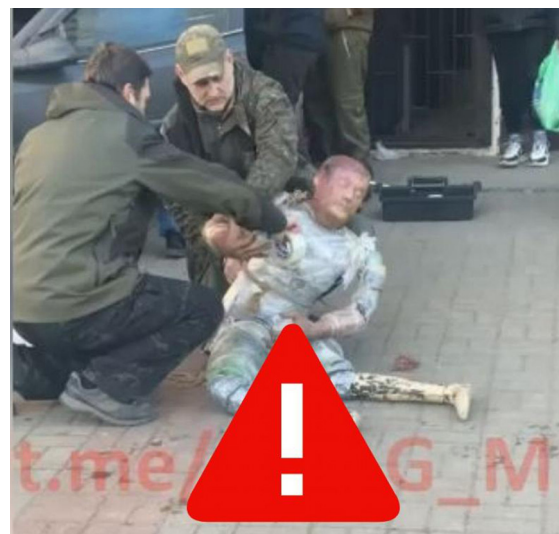
is necessary to spark public debates to build a more critical viewpoint concerning the alleged truthfulness of visual signs we produce, circulate and receive daily.

The main conclusion from these examples is that images' falsity (or veracity) is not a property of images themselves but an outcome of a myriad of relational, semiotic and cultural factors. Consequently, instead of asking what a false image is, we should focus on understanding what makes for a specific image to be conceptualized as false (or true) in a given historical and cultural context. In other words, we need to understand why people trust some images and not others as reliable agents for knowing the world and communicating with others, and what implications these ethical and epistemological assumptions entail.

Finally, this project would be incomplete if it did not recursively consider the images we as social scientists make, analyse and use in our research and how they are perceived by other people (and specifically by the people with whom we work). In other words, the anthropology of visual trust must also be anthropology of the trust in the visual within the anthropological discipline. ●