Vol. 7 (1), 2020, pp. 5-24

JNP | Journal of Narrative Politics

Photography, Space Artefacts and the Ethnographic Self

*Julie Patarin-Jossec**

Undefined inadequacy. That is what I felt for a long time, reviewing the photographs I have been taking in the field. As an ethnographer, I have always used cameras, without really having a clear understanding of how I could or should use them.

Between 2015 and 2018, I realised fieldwork for my doctoral dissertation in political sociology. The field was internationally multisite: Belgium, France, Germany, Netherlands, Russia, and, for a brief period, Canada and Japan. Aiming at a microsociology of inter-state relations, my topic was the ground support of astronauts aboard the International Space Station (ISS), including the astronaut training and the daily support activities from the space agencies' control centres. The research object itself was international as the ISS, since its launch in 1998, gathers European, American, Canadian, Japanese and Russian space agencies. The multisite nature of the field often made photographs essential, if only to visually document a place where I could hardly return due to financial issues (I was mostly self-financing my travels with my doctoral grant). Photographs were a memory aid more than a thoroughly considered instrument to produce and diffuse knowledge. And most of the time, they were clumsily framed.

My education did not help. As a student at the University of Bordeaux in Sociology, in addition to a stint at Sciences Po, the courses of qualitative methods that I followed rarely emphasised photography. And when they did, photographic practices in the field were limited to ethnographers such as Margaret Mead, Gregory Bateson or Claude Levi-Strauss and their use of visuals as scientific proofs that could make visible, hence accessible, an exotic culture for a Western readership. Even Jean Rouch, the founder of filmic anthropology that I would randomly discover during my personal readings, demonstrated a highly formal use of his films: showing reality as it is. In retrospect, I could hardly explain why Howard Becker's *Outsiders* was among the required readings for undergraduates while my teachers never discussed Becker's seminal works in visual sociology. Visual (hence art-based) methods would not have been consistent with the teaching I received, where social sciences' scientific legitimacy was defined in a Durkheimian, functionalist, positivist way: statistics, strictly

* Julie Patarin-Jossec holds a PhD in sociology from the University of Bordeaux (France) and is a lecturer at the St. Petersburg University (Russia). Her dissertation emphasised the role of human spaceflight in the post-Soviet European construction, especially in regard to the training of astronauts and cooperation between Russia and Western Europe. Her latest research is dedicated to the militarization of the outer space and international negotiation regarding arms control using photography and experimental documentary cinema. She is an editor for the *Visual Studies* journal. She can be reached at patarinjossec.julie@gmail.com

objective comparison and axiological neutrality were the foundation for scientific assessments. Not affects nor subjectivation. As an undergraduate student, I had a course in "epistemology" wherein scientific method was defined according to Karl Popper and Thomas S. Kuhn—i.e. what I would later identify as a white and masculinist epistemology praising a disembodied "objectivity". Furthermore, and like most of my peers in social sciences who would eventually use visual methods at some point in their careers, I never learned the technical and aesthetic bases of photography.[1] Thus, not only didn't I have a clear sense of how photographs could be used beyond an illustrative and subsidiary way; I also barely knew how to take them properly.

Nevertheless, my resilient feeling of inadequacy led me to think about my uses of visuals in the field, if only to reduce my discomfort. I knew that my use of photographs was deeply unsatisfactory (there had to be more), although the burden of my socialisation into social science research prevented me from understanding why. Producing and exploiting photographs, coherently and heuristically, required understanding the unique value of images and the opportunities they generate throughout the research process. Only now can I understand that, while visual scholars widely recognise the omnipresence of visuals in social reality and, hence, visuals' relevance for social scientists[2], there is nothing obvious in the way one should use photography without the proper education.

***

To deploy reflexive encounters. An intellectual and political pathway is what I had to go through before I could develop a new sense of what I aspired to as a visual scholar. First, I started to decentralise what I was told at university in my readings. Long before finding visual studies, I read feminist and postcolonial studies, Marxist theory and anarchist epistemology. Reading Sandra Harding was like receiving electric shocks after my undergraduate curricula. At some point, science studies appeared to me as a way to enlarge my perception of what legitimacy meant in the production of academic knowledge. More than a complementary education to my curricula, this was literacy.

In the meantime, I became increasingly involved in political collectives, mainly feminist and anti-fascist. All the meetings, debates, evenings of gatherings and manifestations in the streets I contributed to went along with my readings in a very logical way. Ultimately, my constant travels abroad for my fieldwork forced me to back out of these collectives but, during this period, I came to integrate the idea that politics were, first and foremost, made of flesh, emotions and suffering resulting from the embodiment of social hierarchies. In a word, politics were carnal mechanisms. I understood how much power relationships that frame social reality are materialised both in the bodies experiencing (and/or exercising) these relationships and in the artefacts of our daily life. After all, Marcel Mauss, Emile Durkheim's nephew, once wrote in his journal that "objects are the proofs of social facts". Bodies and

[1] This issue concerns social scientists using film or any other visual method. See for instance Maillot, Pierre. 2012. "L'écriture cinématographique de la sociologie filmique. Comment penser en sociologue avec une caméra ?" *La nouvelle revue du travail* 1. Online : https://journals.openedition.org/nrt/363.
[2] Becker, Howard S. 1974. "Photography and Sociology." *Studies in Visual Communication* 1, no.1: 3-26.

artefacts are indissociable from the social relationships that make them. Power relationships, including at a geopolitical scale, can influence the production of legitimate bodies and shape material objects such as a space station module or a space vehicle[3]. This “incarnated” apprehension of social reality, and consequently of the social sciences that study it, was a fundamental step toward my use of photography in political sociology. Indeed, if power dynamics could be materialised, they could then be represented and imaged.

My very practice of ethnography might have been, in truth, the most crucial experience that would later lead me to visual methods. More than any other qualitative methods, the immersive and intimate nature of ethnography forced me to consider the influence of my relationships with my informants (characterised with familiarity, conflict, symbolic violence, sexist attitude or even attraction) in my data. After a few weeks sharing meals and drinks, exchanging confidences, or continuously sitting next to each other for days in front of the same computer (like I did in control rooms with operators), one quickly understands that ethnographic knowledge is inextricably related to the particular relational dynamic between the ethnographer and all the persons he/she/they comes to meet in the field. Thus, reflexivity—rather than the invisibilisation of the ethnographer’s implication for the sake of “objectivity”— appeared to me as the precondition to actual rigour. Of course, such considerations are now widely acknowledged since the “emotional turn” in 1990s ethnography, and are the very base of autoethnography. However, these same considerations continue to be overlooked in a few curricula, depending on the traditions and schools of thought deployed within university departments.

Still today, I often think about a former PhD student who defended her thesis in the laboratory where I was starting mine. Her research emphasised the reflexivity of social scientists in their writing process (why should one use “I” and what does the use of pronouns mean in the production of knowledge?). I remember my PhD advisor who, after chairing her defence committee, told me that her topic was not going to “get her anywhere” and that she was “too much out of control” to get anywhere anyway. A few months after her defence, and while I was being told that in France, young doctors usually cannot obtain a tenured position before an average of three to eight years following their PhD, I learned that she had been recruited as an assistant professor in a UK university. As if, while she was criticised by her peers in our university, another research culture could exist, with different sensibilities and engaging in science differently. Thus, if I had trouble finding a fit in my initial research culture, there could be alternatives.

***

Reconsidering aesthetics and material culture in the field. Ultimately, this trajectory made from intellectual and political encounters led me to reconsider my whole understanding of what could be defined as a scientific practice or a legitimate knowledge—including regarding

[3] See below, in addition to Patarin-Jossec, Julie. 2020. “Materialising sovereignty: European space industries in the Europeanisation-nationalism nexus.” *Journal of Contemporary European Studies* 28, no. 2: 257-268.

the use of visuals. I ended up coming to visual studies because I had first understood the carnal and aesthetic dimension of politics in my field. I came to work with photography because I had, first, learned to see my field as an environment wherein artefacts could materialise power relationships at various levels, including in my own experience in the field (I further develop this below).

A few months after writing my dissertation, I returned to my fieldwork photographs. One thing was certain: these photographs did not well represent the places I have been and the people I met, but they pictured how I had experienced these encounters. I started to question my motivations for taking my pictures to better understand how I could use them. Why did I ever want to take a photograph of this particular person or object rather than any other? What moved me to take these pictures beyond the "exotism" of space artefacts and despite their apparent "ugliness" (as I was thinking then)? While a rocket launch or a space station is generally acknowledged as beautiful because of their spectacular nature and their manifestation of "technological sublime"[4], daily used tools of objects such as a training module, the screens of control rooms or a spacesuit may not easily appear as such. However, if Susan Sontag famously argued that nobody would ever take a photograph of something "ugly" unless this ugliness could somehow be "beautiful"[5], why take pictures of training modules, cosmonauts' work tools or deserted roads around a training centre?

For instance, I took photographs of screens in operation rooms because I was fascinated by the strange aesthetics of all the data, numbers and colours scrolling on them. I had taken a picture of a sign along a road which, indicating the direction of a space agency's centre in the middle of a forest in Germany, would help me to remember how important the location of my fieldwork was (i.e. isolated, often within military protected areas). Or I would take photographs of the many flags wandering at the entrance of a training centre building if only to highlight that my field was organised around a nationalism-internationalisation nexus (where international cooperation is praised yet struggling with national claims and sovereignty).

In fine, many of my photographs pictured desolated and isolated places, sometimes in the wilderness (see below) or ruled by the imposing mass of steely training facilities. All this contributed to craft a peculiar aesthetic environment which inspired a few art photographers in the past years (such as Edgar Martins[6]). If "nobody ever discovered ugliness through photographs" while "many, through photographs, have discovered beauty"[7], my growing fascination for the artefacts pictured on my photographs forced me to reconsider the connection between aesthetics, politics and reflexivity in my research—as well as the way I

[4] Miller, Perry. 1965. *The life of the mind in America: from the Revolution to the Civil War*. Harcourt: Brace & World; Nye, David E. 1994. *American technological sublime*, Cambridge: MIT Press; Patarin-Jossec, Julie. 2018. "Human spaceflight in the symbolic economy of the European building." PhD diss., University of Bordeaux, 295-299. See also the account of Ayn Rand of the Apollo 11 launch as an example of reaction to the "sublime" of a space launch: Rand, Ayn. [1969] 1989. "Apollo 11." In *The voice of reason: essays in objectivist thought*, edited by Leonard Peikoff, 161-178. New York: Penguin Books.
[5] Sontag, Susan. (1977) 2002. *On Photography*. London: Penguin, 85.
[6] Martins, Edgar. 2014. *The Rehearsal of Space & The Poetic Impossibility to Manage the Infinite". Madrid:* La Fabrica/The Moth House.
[7] Sontag, 2002 (*op. cit.*).

could make sense of this connection. I finally understood that photographs and other visual materials could be a reflexive narrative of my research object (human spaceflight and its politics), more than they would narrate the fieldwork in itself. Photographs weren't limited to showing reality: they could also put into images collective imaginaries and fantasies or support deeper culturally framed significance[8]. More than embodying specific individuals, events and locations[9], photographs could thus retain various meanings and engage in a plurality of uses through their relationship with the world. They could be so much more than illustrations of a scholarly narrative: they could *be* the narrative.

***

Deploying a new narrative: a visual and textual record. As artefacts from other social worlds, the material culture of space programmes embeds various power relationships[10]. For instance, the manufacture of spacesuits relies on the legitimation of body standards which can be discriminatory[11], and the construction of Russian rockets remains reliant on the Soviet division of labour among socialist republics, creating the dependency of the Russian space programme on Ukraine and Kazakhstan (see below). Images from media, science-fiction movies and the communication departments of space agencies are largely distributed in public space. These visuals, often institutionalised (since produced by governmental entities) saturate how space exploration is depicted and imagined. Consequently, developing a counter-narrative to this visual representation through ethnographic visuals is essential. Ethnographying space programmes requires, firstly, to consider that the field is already framed by pre-existing images; secondly, producing new visuals should both allow an understanding of the material reality of human spaceflight and make visible activities and social actors usually invisibilised in the narrative of space programmes. For instance, photographing operation rooms in control centres or operators, instead of emphasising astronauts out of their social context. Photography can contribute to a critical record of a space programme, engaged towards the invisibilised ones.

When space artefacts are not imaged in Soviet propaganda illustrations and generating technological enthusiasm, the imaging of space programmes tends to be influenced by technical features—such as the metallic structures of space stations and space vehicles, the golden strangeness of thermal protections, or the predominant technicity of all the screens, cables and tools used in the preparation of a spaceflight. Once again, this particular aesthetic

[8] Collier, John Jr. and Malcolm Collier. 1986. *Visual anthropology: photography as a research method* (revised and expanded edition). Albuquerque: University of New Mexico Press.
[9] Becker, Howard S. 2002. "Visual evidence: A *Seventh Man*, the specified generalization, and the work of the reader". *Visual Studies* 17, no. 1: 3-11.
[10] For example, Antina von Schnitzler. 2013. "Traveling Technologies: Infrastructure, Ethical Regimes, and the Materiality of Politics in South Africa." *Cultural Anthropology* 28, no. 4: 670–693.
[11] Julie Patarin-Jossec. 2020. "The Politics of Heroes' Body: Ethnographying the Training of Foreign Astronauts in Russia." *Corpus Mundi: Journal of Body Studies* 1, no. 2:14-36.

of space artefacts has inspired a few artists, as in Cristina De Middel's fantasised "afronauts"[12].

To break with this aesthetic of space artefacts, I started using colour editing in my photographs. Colours invariably serve nonverbal meaning[13] and have an important symbolic role, as acknowledged in security studies and world politics[14]. Among other editing practices, examples of luminescent colours to convey strong emotions flourish in art photography (for instance, see the works of Maria Lax and Todd Hido). Colour editing could be especially useful when, in the field, conditions did not allow controlling the set-up or the light. However, using strong colour editing (as filters) is uncommon, if not unwonted or unsuitable, in ethnographic photography—as if significant editing would question the validity and reliability of the images. This is where I started my retrospective narrative a few pages above: if visuals aim to provide an accurate representation of the reality, photographs should show people, events, and location as they are: unadorned and authentic. As a consequence, art practice and ethnographic knowledge rarely meet, with a few exceptions[15]. And yet, the force and heuristic of images cannot exactly rely on their capacity to deliver an authentic vision of the reality. To a lesser extent, there is always a multiplicity of "choices that lay behind the creation of an image", if not only focus, aperture and framing: "all data, visual or otherwise, are constructed"[16]. Photographs remain, first and foremost, a medium through which a certain reality is constructed in its own way. That is why drawing and writing on photographs can unfold new ways of thinking through "everyday aesthetic sensibilities"[17] in the field.

At first, I only aimed to create visually appealing photographs while the quality of the original pictures was often extremely poor. However, the newly coloured and lightened images rapidly appeared to be a powerful instrument of objectivation. After editing the light, exposition and saturation, and after adding localised coloured filters to create a visual ambience characterised by oddness and pictorial effects that would contradict with the original artefacts (if only in terms of colours such as purple, pink, blue or green), I further developed my editing through writing. On some of them, I reproduced fieldnotes from my journal. On others, I wrote down feelings and memories that I never expressed before, often with embarrassment since I had learned that personal feelings (as uncertainty or insecurity) should be eradicated from legitimate knowledge. This process of connecting fieldnotes and visualisation made me self-aware of how much the way I experienced my fieldwork influenced my data. Accordingly, the annotations on my photographs performed different functions. Some annotations served to mark the environment wherein the picture was taken,

---

[12] De Middel, Cristina. 2012. *The Afronauts*. Madrid: self-published.
[13] Among others, Bellantoni, Patti. 2005. *If it's purple, someone's gonna die: the power of color in visual storytelling*. Burlington: Focal Press.
[14] Andersen, Rune S., Juha Vuori and Xavier Guillaume. 2015. "Chromatology of security. Introducing colours to visual security studies." *Security dialogue* 46, no. 5: 440-457; Guillaume, Xavier, Rune S. Andersen and Juha Vuori. A. 2016. "Paint in black: colours and the social meaning of the battlefield." *European journal of international relations* 22, no. 1: 49-71.
[15] For instance, O'Neil, Maggie. 2012. "Ethno-Mimesis and Participatory Arts." In *Advances in Visual Methodology*, edited by Sarah Pink, 153-172. Thousand Oaks: SAGE Publications.
[16] Harper, Douglas. 2012. *Visual sociology*. London and New York: Routledge, 8.
[17] Bleiker, Roland. 2019. "Visual autoethnography and international security: insights from the Korean DMZ." *European Journal of International Security* 4: 274-299.

via geographic directions or out-of-frame reference points. Some of these indications could also help me to get my bearings: starting new fieldwork can mean discovering an unfamiliar social world, with its own social logics, its culture and symbols that the ethnographer needs to understand. Entering the field can mean being surrounded by objects whose utility or function remain obscure, deprived of indigenous knowledge. A few of the photographs gathered for this essay attest to this period of illiteracy when a few cables, screens and tools did not completely make sense to me (as illustrated below in the edits of the sixth photograph). Other annotations accounted for my state of being at the time of the shooting—like the edits on photographs 1, 2 and 4. Others made visible power dynamics which remained invisible within the frame of the photograph—as with the third picture. And most photographs have annotations in the three main languages I used for my fieldwork (English, Russian and French), including translations of words from Russian to English on picture 3, taken while I was still learning Russian.

In addition to what would become an autoethnographic process, creating new visuals at odds with the usual colouration of space objects allowed me to re-appropriate my own understanding of my field. All these people and events I had been part of, the time of a photo flash, became melted with my subjective ethnographer experience through a new visual language. Colours allowed me to deploy a poetic saturated with my own experience in the field. Ultimately, editing not only aimed to make my photographs meaningful for me but also allowed me to reinvent a social world whose signature objects were overrepresented in the popular imagination. Gradually over auto-analysis, my fieldwork photographs became an invitation to fantasy through which the ethnographer's reflexivity can—and should—be expressed.

With handwritten notes, these photographs attempted a balance between textual elicitation and visual heuristics. Firstly, edited photographies served the deconstruction of common sense in reversing the visual representation of space programmes. Secondly, the text led the eye and explicated hidden dynamics, either related to the photographed scene or from the ethnographer's experience. Although the written form prevails in the diffusion of academic knowledge, where concepts and notions convey scientific meaning (except in formats wherein the text is prohibited, such as ethnophotography[18]), graphical mind and visual culture remain dialectically interrelated[19]. As a consequence, these photographs now highlight an ambiguous relationship between visual and textual forms, acting as an affective archive of my inquiry. While handwritten annotations engage into the ethnographer's experience as much as they support reflexivity, these annotations elicit both the individual memory of a fieldwork and the collective imagination of space exploration.

[18] Achutti, Luiz Eduardo Robinson. 2007. "Photoethnographie. Dans les coulisses de la BNF." *Ethnologie française* 1, no. 37: 111-116.

[19] Garrigues, Emmanuel. 2000. *L'écriture photographique. Essai de sociologie visuelle*. Paris: L'Harmattan.

Photo 1a.

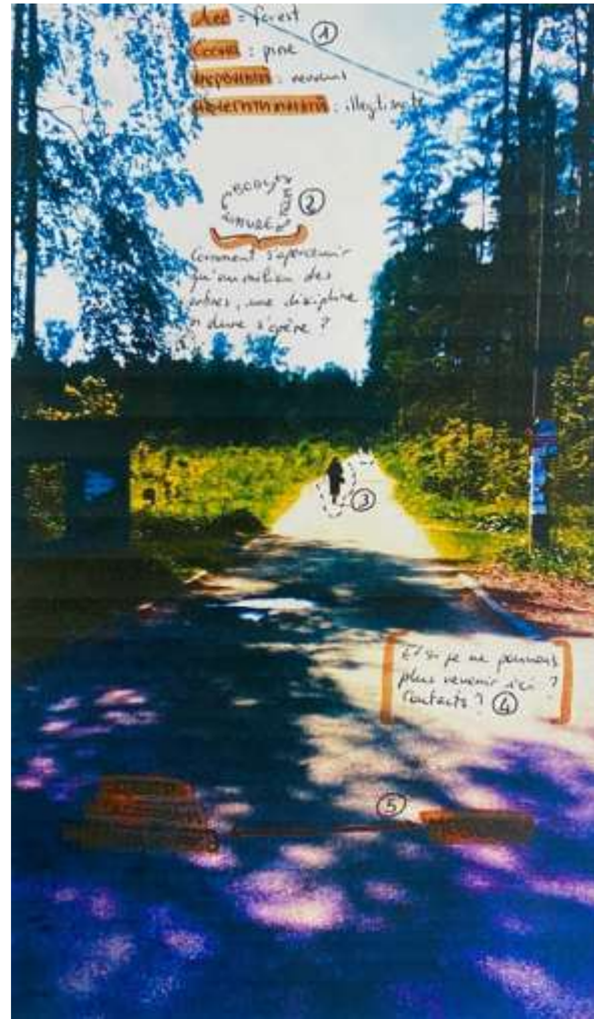

Photo 1b.

Edits on 1b:

1. Vocabulary words in Russian and English: “forest”, “pine”, “nervous”, “illegitimate”.
2. “Body-Nature-Technology”, ““How could one guess that among the trees, such a hard discipline of bodies takes place?” (in French).
3. Employees of the training centre walking through the forest surrounding the centre.
4. “What if I couldn’t come back here? Which contacts could I find?” (in French).
5. Directions to the entrance of the training centre (left) and to Moscow (right).

This photograph was taken at the entrance of the cosmonaut training centre in Star City, Russia, in May 2016. The centre is located in the middle of a forest in the Moscow region, where only a few trains make the 30 km journey to and from Moscow.

Words in Russian (1) refer either to words I was learning (such as “pine”) and applying to my environment, or to the feelings that overwhelmed me at that moment—such as

illegitimacy—as a young social scientist surveying engineers and cosmonauts. The asymmetry of social status between my informants and me enabled the kind of constant symbolic violence that could occur in any fieldwork where the ethnographer has less economic, social and symbolic capital than the interviewees. For instance, some informants did not take social sciences (and, hence, my researcher position) seriously, while ethnographying cosmonauts supposed to be continuously reminded, either by cosmonauts themselves or by other people around (managers of training centres, journalists, and so on) that my interviewees were part of an elite—a closed social world wherein nothing that I could ever say, think or be would be legitimate.

Beyond illegitimacy and insecurity, it seems to me today that emotions are materialised everywhere on my pictures, including on this particular one. The first sentence in French (4) evokes the fears and uncertainties I had at this time around whether I would be able to pursue my fieldwork. As mentioned above, this visit at the training centre was during my first field trip in Russia, while I barely knew how to communicate in Russian (at least orally; reading archives was easier for me) and while I was still to meet most of the informants who would allow me to develop my fieldwork.

When I took this picture, this was my first time at the Russian training centre. I came there on a private bus, along with representatives from space agencies around the world, as part of a tour organised by the Russian space agency. When the bus stopped at the entrance of the centre's site, I was struck by the wilderness around and amazed to see employees of the centre disappear in the woods to catch a train (3). Like almost everywhere in Russia outside the large urban areas (Moscow, Saint-Petersburg, Samara…), gigantic forests of pines surrounded the roads. For me, such a wild environment with only a few marks of human domestication created a contrast with the training of cosmonauts, which was ruled by technology and techniques. That is why the second sentence in French (2) refers to the cosmonaut training, organised around docility of bodies through endurance and pain tolerance, contrasting with the natural environment. To locate me in this wilderness, the fifth edit on the picture (5) helped me to indicate the route to Moscow relative to where I was. Nonetheless, a few marks of human domestication remained—such as the small ads glued on the electric pole (on the right of the road) and the remnant of an old Soviet granite billboard, alongside the training centre's iron fence (on the left).

Photo 2a.

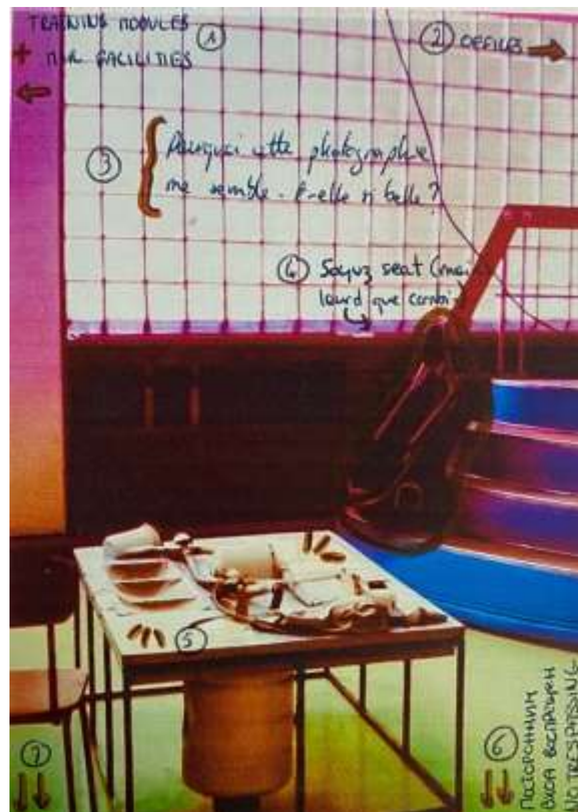

Photo 2b.

Edits on 2b:

1. Location of training modules in the building.
2. Location of offices.
3. “Why does this photo seem so beautiful to me?” (in French).
4. Soyuz seat, “(less heavy than the spacesuit)” in French.
5. Tools on the table.

6.-7. Delimitation of the restricted zone where tourists are not allowed: “No trespassing” (in Russian and English).

I took this photograph inside one of the main buildings of the training centre, in May 2016. The building is quite far from the centre’s entrance. Part of an autonomous municipal district of the size of a small town called “Star City”, it is common to use a car to drive from one training facility to another within the centre’s area. Buildings are separated with large alleys, old trees, monuments and sculpture from the Soviet era, and museified engines like military jets displayed among parked cars. Most of the buildings are very massive and typical of the geometric, stone-based Soviet architecture; some of them display commemorative plaques at their entrance, celebrating a cosmonaut, an engineer or an event from the Soviet period. This particular building is among the most used for the training, while it is also among the most museified. Segments of a former space station, archive photographs and

objects used by the first cosmonaut crews: training and collective memory are strangely, deeply combined.

At the very end of the building, built as a long hangar with large windows wherein training modules of the Soyuz space vehicle and the former Mir space station are exhibited, I found this table with tools and used rags. I did not notice the empty Soyuz seat that lays on the stairs before taking the picture. Seeing this seat in this position appeared like an unintentional art piece. If this scene seemed so unreal, it was partly because of the ergonomy of Soyuz seats, custom-fitted for each crew member and aimed to be incorporated in the 6 m3 volume of the Soyuz module. But as I wrote in French (4), seats remain lighter than the spacesuit used during the flight. Moreover, what appeared to me as inherently poetic was the contrast between the visualisation of the empty seat, abandoned or waiting to be added to the vehicle capsule, and the relationship of this seat with cosmonauts' bodies—which are constrained and contorted while the launch (and partly the flight) are extremely demanding for the bodies. In addition to the Soyuz seat, I found that the tools, pipes and rags left on the table (5) illustrated the particular aesthetics of Russian cosmonautics—where craft, handiwork and old school methods prevail. At the time, I wondered why I found this photograph so poetic and "aesthetic", although I did not have a specific definition of aesthetic at that time—hence the caption in French (3). I couldn't answer until better knowing and understanding my research object (e.g. the relationship to bodies during the training and the spaceflight). Further notes on the picture specify out-of-frame spatial reference points: the training modules in the rest of the building (1), offices on the upper floor (2), and the delimitation with the zone where tourists are allowed (6) (7).

This delimitation of restricted zones was central, even at the earliest stage of my fieldwork. As the following photographs also outline hereafter, the very organisation of interior spaces of space facilities is a core mechanism in the manufacture of legitimate bodies that the training is: forbidden zones separate the ones whose legitimacy is never questioned and those who will never be part of the elite. Until a later period, when my fieldwork led me to access the other side of these delimitations, each cord or "no trespassing" sign materialised my anxiety of not being able to realise a thorough and immersive ethnographic investigation.

Photo 3a.

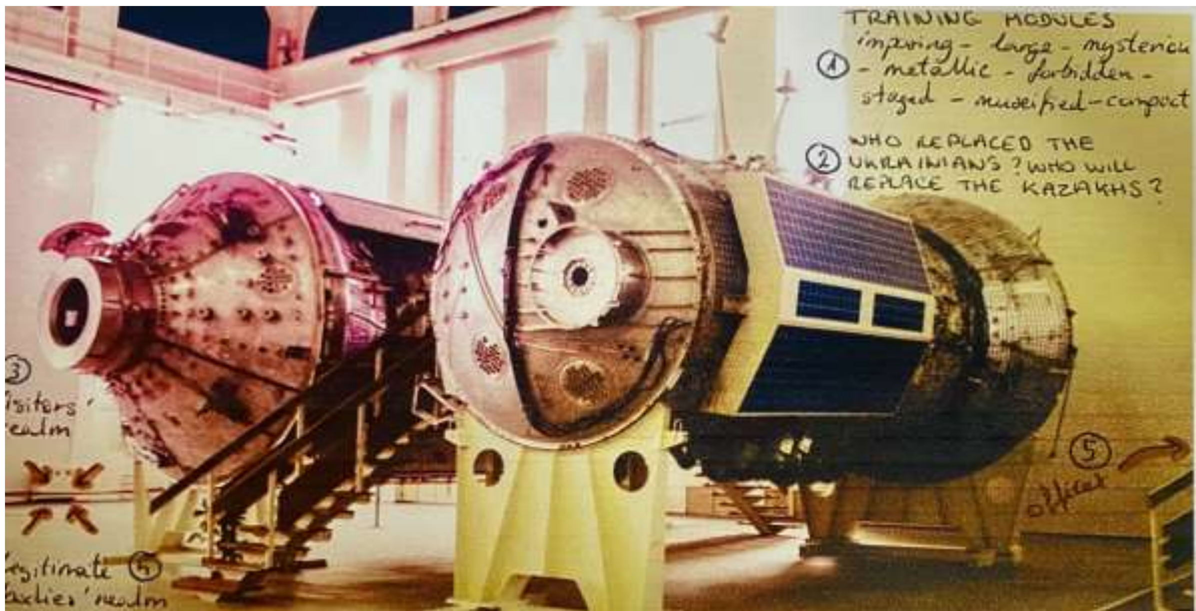

Photo 3b.

Edits on 3b:

1. "Training modules: imposing; large; mysterious; metallic; forbidden; staged; museified; compact."
2. "Who replaced the Ukrainians? Who will replace the Kazakhs?"
3.-4. Delimitation of the zones where tourists are allowed ("Visitors' realm") versus where they are forbidden ("Legitimate bodies' realm").
5. Location of offices at the top of a staircase.

This third photograph is a picture of training modules for the International Space Station, also at the Russian training centre in Star City. I took it at the same period as photographs 1 and 2 (in May 2016). As specified in the first edit (1), I was impressed by the size and the configuration of these modules (both being museified and used in the training), hence this list of adjectives that came to my mind when I walked by these modules for the first time. However, the modules appear to be quite small once you enter inside, where tools and laptops cover every surface of the interior, strapped with Velcro. Like the European training centre located in Germany, where I had realised a five-week immersion a few months before going to Russia, this visit to the Russian training centre was very important to me as it allowed me to realise what working and living within the modules of the space station could look like while remaining on the ground.

More than on the previous photographs, I added here handwritten notes aimed to visualise various power dynamics, otherwise invisibilised in the picture. In addition to a spatial reference point (5), I marked what appeared to me as the materialisation of a broader symbolic distinction: the red cord separating the visitors and the "legitimate bodies" of the cosmonauts and their trainers—(3) and (4)—, the very same type of cords I mentioned in the previous paragraph. The second edit (2) refers to two logics around which the contemporary Russian space programme is organised. First, the Ukrainians space industries, which were dependent on Moscow during the Soviet era and whose post-Soviet rupture have created disruptions in the production line of some space artefacts (including rockets). Second, the Kazakh-Russian tie related to the cosmodrome of Baikonur, formerly part of the Soviet Union and today Russian territory in Kazakhstan. Since the early 1990s, the Russian government rents the cosmodrome territory to the Kazakh government, which currently remains the only Russian launch base for human spaceflight. As illustrated in these Ukrainian and Kazakh cases, various vestiges of the Soviet Union and its annexations remain in the organisation of the Russian space programme.

Because of these post-Soviet dynamics, I always had an ambiguous relationship with Russian space affairs. On the first hand, I came to meet, trust and bond with some leading figures of the Russian space programme during my fieldwork. I even became friends and intimate with some of them. On the second hand, I passed the last four years in Russia, immersed in a space enthusiasm where cosmonautics and national pride (if not nationalist beliefs) are deeply intertwined. I also rapidly became aware of how much the narratives of these informants and friends, and the programme they served and defended, are deeply rooted in colonial logics. In retrospect, this is what this photograph is about for me: it materialises

the discomfort of an immersed ethnographer dealing with the complexity of post-1990s space politics, evidenced by the artefact that is a space station module.

Photo 4a.

Photo 4b.

Edits on 4b:

1. “Americans are laughing.”
2. “May 2016” (in French).
3. “Feels like a bunker—in marble.”
4. Glass window of the security guards.

This photograph was taken at the entrance of the Russian control centre for space station activities, located in Korolev (Moscow region), also in May 2016 (2). And as the training centre, this was the first (but not the last) time I entered this building. As handwritten in the third edit (3), the place felt to me like a bunker inherited from the Soviet era—which was what the building was, in truth.

Getting through the hall had something of an intimidating *rite de passage*. Control of identity and *propusks* (official access authorisations) was required at the entrance, where security guards protected behind thick glass walls silently verified their register while suspiciously glancing at visitors’ faces (4). Visitors then passed through the doors which turnstiles limited the flow of people like in any building with restricted access and security checks, still under the gaze of the security guards. However, once on the other side of the doors, architecture and decoration of the building were puzzling, strangely ostentatious: beige marble walls, ceilings and floors; enormously large stairs where footsteps and voices became deafening; gigantic chandeliers; and monumental mosaics in some hallways celebrating fantasised Soviet heroes.

It was so ostentatious that this interior design was both intimidating and laughable—at least for some of the American representatives who were with me that day (1). Some of them were long-time NASA officials who worked with the same Russian colleagues for several years, if not decades. Others were employees of American space industries and engineers who came there for the first time, and who seemed very amused by the setting. I remember how difficult it was to avoid shallow interpretations of this moment in terms of post-Cold war tensions (self-assured Russians versus equally proud Americans) while some of my informants were quite stereotypical that day. At the same time, I was reminded of a discussion I once had with a French post-doctoral researcher, whose fieldwork was also in Russia. I especially remembered his words: “Russians love staging. Everything is always a performance for foreigners, like, to demonstrate the magnificence of the Soviet heritage”. If his last sentence could be applied to something, it would be to spaceflight. After a few minutes walking through long corridors with gold metallic walls and marble floors, entering the space station control room was like entering a large theatre stage. The size of the control room, distributed over two floors (the downstairs room being used by operators, the upstairs ledge being reserved for guests and journalists), was disproportionate compared to the space that was actually used by the operators, and gigantic screens used to broadcast launches and landings were almost covering the main wall on its nine-meter height. As I would learn later in my fieldwork, some of the room’s screens would be used to display different information or would not even be turned on when no guest was expected.

Either in developing a critical look at what I would see around me or in reflecting on how I would interpret certain situations, this event led me to be extremely self-aware of how much drawing fast and superficial conclusions in the field can be easy—and tempting. This photograph still reminds me of this lesson.

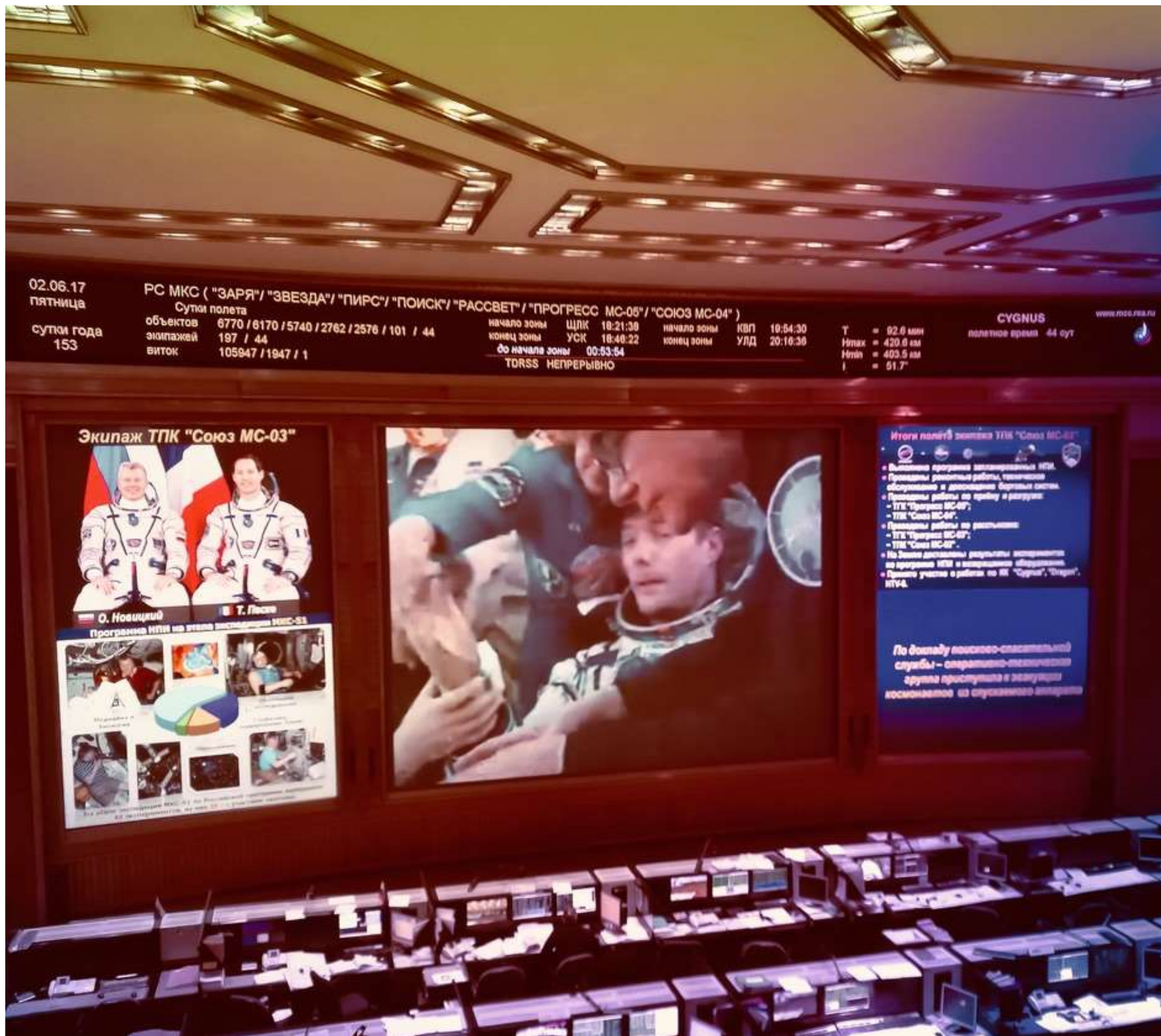

Photo 5. Control room of the Russian space control centre in Korolev. Picture taken from the upstairs ledge in June 2016.

Photo 6a.

Photo 6b.

Edits on 6b:

1. "Coding control conflict."
2.-3. Patches of past space missions aboard the station on the walls: "Mission patches (label)"; "More patches".
4. Screen displaying the composition of the crew aboard the station: "Current crew".
5. Screen displaying unfamiliar information.
6. "DLR = national."
7. "Power" heading on the operator's headset.
8. Location of the "Col-Flight" operation team in the room.

Here is an example of how bad some of my earliest photographs could be in terms of image quality. I took this one in December 2015, in the operation room of the European control centre for the International Space Station (the "Columbus Control Centre", by the name of the European module aboard the station), with a smartphone that did not have a good camera. As a result, I pushed the sharpness and reduced the digital noise to their maximum, which produced this strangely smooth, bright and artificial effect.

While the European control centre belongs to the European Space Agency (ESA), constituted with European member-states, it is located within a restricted zone of the German space agency (the "DLR"). Illustrating the dynamic between national sovereignties and internationalisation, omnipresent in the space station programme, the DLR logo is on a sign (6) indicating the name of the operators' team ("Eurocom"). Since Eurocom operators have the exclusivity of the communication with the astronauts, which lead them to reformulate every request sent by any other operator from one of the European control centres, a "power" annotation (7) indicates the operator's headset. As I experienced during my observations, this delegative system of European operators can generate tensions and conflicts among operators (if not between operators and astronauts). The crews' daily schedule can especially be subject to discussions, while each minute of an astronaut's life on board is decided by ground support teams. A specific team of managers produces the crew's daily schedule according to restrictions imposed by the medical team and requirements of the tasks that crewmembers have to perform in a day. Each of these categories of operators tries to impose its particular requirements, while astronauts sometimes criticise the rigidity of their schedule—hence the word "control", added on the screen displaying the schedule (1) of astronauts.

Mission patches (each of these patches being created for a specific crew aboard the station) are often displayed on walls in operation rooms or operators' offices, both as a demonstration of the international composition of the crews and the sense of belonging to the involved space agency—(2) and (3). As for the screens, and there are plenty of them in a single operation room, they display various coded information about planning of the day (which uses a colour code, as shown on the screen at the top centre of the picture), procedures dedicated to specific tasks, the composition of the crew aboard the station (4), telemetric data (see the small screen with yellow text at the forefront), and so on. Decrypting these data requires one to be familiarised to the daily bureaucratic organisation of the space programme. I was not always able to understand these codified data—as illustrated by the question marks in the fifth edit (5), pointing out a screen that remained mysterious for me until I asked an operator. Back then, there was for me a paradox in the ethnographer's work (who needs to

learn about the field and understand it) and the fragility of the ethnographer's legitimacy in the field. I had to ask questions that could sound silly to my informants if I did not understand something by myself (such as codified data or acronyms that I couldn't decrypt), and at the same time, I had to prove that despite a social science background, I was able to become an insider and appreciate the nuances of my informants' daily work. Of course, only long-duration immersion (and consequently, patience and rigour) can allow a detailed understanding of a field. During the process of knowing my research object better, this feeling of constant insecurity urged me to learn as much as I could, as quickly as possible. As I would later tell my students, such a process of familiarisation often requires to enlarge the scope of the inquiry: not only observing and interviewing informants, but reading about their discipline and social world (even if that implies to learn about space engineering or space physiology), searching the archives of this social world's history, and not hesitating to become an actual participant in the field. After all, if the ethnographic engagement is, to me, about acknowledging the subjective side of ethnographic knowledge and being auto-analytic, it is because it is first and foremost about leaving one's comfort zone.

***

As I mentioned in the first pages of this essay, developing an experimental use of photography, less illustrative and considered as a heuristic instrument, meant struggling against, and eventually deconstructing, all my scholarly habitus wherein visuals were nothing more than *evidences.* Working with photographs beyond their figurative function also meant unlearning some of the bases of my discipline—and reclaiming how scientific knowledge about the social could be defined. Rather than conveying "truth", couldn't photographs build a poetic world and make visible collective imaginaries to support critical thinking? That is how I came to acknowledge to myself the ability to create and produce meaningful imaging based on affects and subjectivation. That is also how I realised that I did not want to reproduce the aporias of my own training with my students or in my publications.

There were so many things I had been told to never write about or say out loud as a student. Among other resilient taboos (for instance, sexual relationships between ethnographers and their informants), the doubts and insecurities an ethnographer can experience always seemed to me as invalid materials. A few years later, talking with my own students made me realise that what I used to feel also concerned them. They often felt very insecure in their use of ethnography and interview. They did not understand either how images could support their research and often did not dare to try to take photographs in their field—it seemed "silly" and "impolite" in regard to the informants, if not completely "useless".

Emotions and aesthetics are often thought as inseparable in the field of visual global politics, precisely because both are thought as allegedly hard to operationalise and verbalise,

making them hardly reliable materials to produce consistent knowledge[20]. Thus, understanding the heuristics of visuals, defining the scientific legitimacy of knowledge about social and political facts, and the consideration of affects remain deeply interrelated. That is why aiming at accuracy, thoroughness and creativity in fieldwork methods starts with auto-analysis. Making social and political reality meaningful requires, firstly, to narrate oneself, including visually[21].

This consideration led me to develop this essay, which proposes a reflection about the relationship between words, visuals, and reflexivity. In order to do so, it emphasises a narrative that I would have never imagined in an academic journal when I was a student: an autobiographic narrative underlining the failures, the misunderstanding, the insecurity and intellectual meandering which, little by little, led me to become the fielwork scholar and the teacher I try to be today.

Each picture of this essay is testimony to the fact that the singular intellectual, political, affective and erratic trajectories of scholars invariably contribute to frame the knowledge they produce and the knowledge they teach. Without my political socialisation, and the obsession it led me to develop for embodiment and the materiality of power relationships, I might never have started to use visual methods. And how I experienced events and situations in my field (feeling insecure, learning a new language, bonding with informants or being submerged by emotions and the instability of fieldwork) had significant consequences on my research. They affected both my final dissertation—i.e. how I would write it and what I would write—and my relationship with fieldwork—i.e. how I would reflect on methodology and ethnography's epistemology. In addition, this fieldwork experience greatly influenced my teaching: I would, for instance, create a course dedicated to subjectivation, emotions and difficulties in the field, according to what seemed important to me based on my experience and what lacked in my own education. If an ethnographer's trajectory has such an impact on his/her/their understanding of the social and his/her/their ability to convey knowledge through publication and teaching, being reflexive about this trajectory is unavoidable. The only way for scientific legitimacy is intellectual honesty.

[20] Bleiker, Roland and Emma Hutchison. 2018. "Methods and methodologies for the study of emotions in world politics." In *Researching emotions in International Relations: methodological perspectives on the emotional turn*, edited by Maéva Clément and Eric Sangar, 325-342. London: Palgrave.

[21] Such narratives remain rare aside from autoethnography, especially in French academia where "autoethnography" is not developed as such— despite a tradition of reflexivity and a certain taste for biography analysis. And yet, autobiographical insights are essential to understand how (and why) one could ever become a visual scholar, moreover despite an unfavourable education. See for instance Burlyuk, Olga. 2019. "Fending off a triple inferiority complex in academia: an autoethnography." *Journal of Narrative Politics* 6, no. 1: 28-50. CollectiF B. 2020. *Parler de soi : Méthodes biographiques en sciences sociales*. Paris : Éditions de l'EHESS.