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VISUAL ETHNOGRAPHY

Why methods matter: how to capture the process of subjectivation of an expert blacksmith?

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Abstract
What methods are available to anthropologists to research the subjectivation (or processes of identity formation) of craftspeople? This article offers a methodological reflection on two video methods used to understand the professional subjectivation of Mohammed, an expert blacksmith in the south of Morocco : (1) filming observation, a way of filming that is both embodied and reflexive and (2) video-elicitation a method that shows participants video clips of themselves at work as a means of accessing their verbalized reflexivity. We argue that these methods are powerful research tools to overcome some of the limits of the semi-structured interview, to encourage the reflexive engagement of participants and to grasp the complexity of the subjectivation processes of craftsmen.

Résumé
Quelles méthodes les anthropologues peuvent-ils utiliser pour étudier la subjectivation (ou les processus de formation de l'identité) des artisans ? Cet article propose une réflexion méthodologique sur l'utilisation de deux méthodes vidéo mobilisées pour comprendre la subjectivation professionnelle de Mohammed, un forgeron expert du sud du Maroc : (1) l'observation filmante, une manière de filmer à la fois incarnée et réflexive, et (2) l'entretien d'élicitation vidéo, une méthode qui consiste à montrer aux participants des extraits de vidéo d'eux-mêmes au travail afin d'accéder à leur réflexivité verbale. Nous montrerons que ces méthodes sont des outils de recherche puissants pour surmonter certaines limites de l'entretien semi-directif, encourager l'engagement réflexif des participants et saisir la complexité des processus de subjectivation des artisans.

Keywords
Subjectivation; research method; materiality; embodied knowledge; skills; cognition; socio-technical dispositive

Mots clés
Subjectivation; méthodologie; matérialité; connaissance incarnée; savoir-faire; cognition; dispositif socio-technique

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How can ethnographers grasp the process of identity formation (subjectivation) within the limited time they spend with their interlocutors? How can they gain insights on professional practices, habits, practices of the self and ethical conduct that engage material cultures when these are the outcome of a socialisation that is long, and to a large extent embodied and unconscious? This article approaches video methods and video elicitation interviews as socio-technical dispositives and therefore as research tools. It offers a methodological insight into a long-term research that led to an article (2023) on the professional subjectivation of Mohammed, an expert blacksmith who lives in a small village in the Sirwa mountains, Morocco. By subjectivation we mean the process by which Mohammed developed a blacksmith's professional identity, ethos and hexis, within specific governmentalities. Building upon Foucault's theories (2001 II: 720 et 1401), governmentalities can be defined as the norms, categorisations, social relations and institutions, that target the body[1] (Harvey and Rail 1995) and generate relationships of the subject with herself and with others – humans and non-humans (materials, tools, the smithy, fire and jnûn or spirits). Foucault did not take the body as an object of enquiry in itself but as a mediator of relations of power (both actions on the self and on others). We draw inspiration from his theoretical hypothesis that an approach through the body offers a fruitful avenue for an anthropological analysis of subjectivations (analysis focusing on actors) and governmentalities (analysis focusing on social relations). Thus, we postulate that all embodied human practices (motor, sensory, affective and cognitive) engages material cultures, and that forms of subjectivation emerge through this negotiation with it. Subjectivation is therefore a dynamic process that results not only from governmentalities but also from a personal process of appropriation and individualised transformation.

Sub-Saharan blacksmiths have fascinated anthropologists at least since 1872 (Topenard)[2]. A recent conference organised at the Quai Branly Museum[3] (4th and 5th March 2020) attests to the actuality of the topic of blacksmithing. In this extensive literature, we found two approaches particularly pertinent. Martinelli (1996) analyses the transformation of traditional learning values within a capitalist and liberal context through a focus on the observation of technical practice and the social dimension of learning among Moose metallurgists in Burkina Faso. Warnier is the only anthropologist who has focused his attention on the subjectivation of a blacksmith. He describes how Tom Cham, a Cameroonian in the Grassfields, learnt to control his breathing and developed specific embodied practices and perceptions adapted to metallurgy (Warnier 2004; 2012).

[1] Foucault considers that through the body, the mind is also involved and affected. We have chosen to use the term organism as it covers both the body and mind.

[2] Unlike the vast literature (both francophone and anglophone) on blacksmiths in sub-Saharan Africa, the blacksmiths of the Maghreb have not interested anthropologists, perhaps because of their inferior status within their own societies. Most of the recent studies are based on colonial research, itself very limited (Paris & Perriol 1932) for Morocco. Thus Agabi (1998) refers to Hanoteau & Letourneau (1893) La Kabylie et les coutumes kabyles; two exceptions are C. Fortier (2002) and C. Hinker (C. Agabi & C. Hinker 1998) who both work in Mauritania.

[3] Anthropologie et archéologie du fer https://www.quaibranly.fr/fr/recherche-scientifique/activites/colloques-et-enseignements/conferences-et-colloques/details-de-levenement/e/anthropologie-et-archeologie-du-fer-38688.

Through forging metal objects, the blacksmiths in Cameroon transform their bodies, subjectivities and their relationalities according to a conception of metallurgic materials that, according to Warnier, is very close to the idea we have of the nuclear industry today. To this end, the author drew on traditional ethnographic approaches combining interviews with Tom Chan and observation of collective work sessions in the smithy, which took place over several days. Although Mohammed, the Moroccan blacksmith, shares with his Cameroonian counterpart practices (or techniques) of the self specific to the work of iron[4] his subjectivation differs due to a number of socio-economic, cultural and historic factors, a specific environment and a different conception of materials (Naji and Ait El Housseine 2023). In addition, like the Moose Blacksmith of Yatenga, his work is inscribed in a social space that is capitalist and liberal.

Since the 1990s, video making has been used in the social sciences as a research tool to explore both the subjectivities of research participants in their workplace and the intersubjectivity between participants and researchers within the research process[5]. In order to grasp the process through which Mohammed is subjectivised into a blacksmith, as well as his embodied and cognitive skills, and his social positioning, we employed video-elicitation interviews, a more collaborative methodology of co-production of knowledge drawing on video clips and the blacksmith's reflexivity on his practice. Our fieldwork involves three socio-technical dispositives that interact and interlink different activities. The first dispositive is the smithy itself, embedded within various governmentalities: locally, it is connected to the village and weekly market; nationally, it relates to female clients who are weavers and institutions such as the Department of Craft and Moroccan museums; and internationally, it is linked to the EMKP website (see below), itself integrated to that of the British Museum; this article in a European journal constitutes another international governmentality. Methodologically, we have chosen two dispositives that seemed relevant to a study of a practitioner's subjectivation: the recording of the making of a weft beater and video elicitation interviews, which we will triangulate with other, more traditional methods of long-term observation and semi-structured interviews (since 2002). Having set out the context of the research, we define how we use the concepts of socio-technical dispositive, governmentalities and subjectivation; we present the relationship between the dispositive of the smithy and that of the video methods, and the subjectivations they engender. Next, we demonstrate the value of the video-elicitation interviews, which enable Mohammed to express himself,

[4] In Cameroon, the origin of metal needed to be traced in order to ensure that it did not contain a 'type of violence' foreign to the village and therefore likely to bring conflict or even war in the village. In southern Morocco, since the colonial era (1930s), the metal worked by blacksmiths has been recycled and is therefore untraceable. Furthermore, the French colonial authorities revoked the blacksmiths' entitlement to produce weapons.

[5] In France and the UK, anthropologists and sociologists use film to reflect on the intersubjectivity between researchers and their research participants in the co-construction of the film/video (Claudine de France in Buob 2017: 8; Giglio-Jacquemont and Géhin 2012; Gowland 2015; 2018, Piault 2000; Pink 2003; MacDougall 2005, Lallier 2009; Papinot 2012, Meyer and Papint 2017; de Hasque 2017). Some colleagues use film to study skills and work as a situated activity (Collas 1996: 19), the singular-collective dialectic relationship in the workplace (Torterat 2024), learning processes (Comolli 1995), the habitus of car mechanics (Dant 2004), the nature of situated and cognitive know-how (Gowland 2015), or education in attentiveness (Gowland 2015; Grasseni 2004; Torterat 2020). For their part, geographers are exploring the relationships of practitioners with plant and animal matters (Ernwein 2022; Patchett 2015).

something not possible when he works in the smithy. Finally, we will show how these various methodological dispositives give us access to his subjectivation as a blacksmith. This will involve examining his decision-making process and strategies during the production process, the governmentalities that affect his actions, and the networks of actions within which he works.

1. Articulating two socio-technical dispositives: the smithy and the video shooting

After setting out the general context of our research, we will outline the concepts that have helped us examine the value of the elicitation interview within an anthropology of subjectivations.

1.1 Research context

This research is part of a broader participatory heritage preservation research project funded by the Endangered Material Knowledge Programme (EMKP), which aims to document the textile practices of craftspeople in southern Morocco, from the High Atlas to the Anti-Atlas. These digital, textual and audio-visual archives produced in collaboration with the craftspeople of several rural communities will be accessible on the site of the EMKP. A short film reconstituting the steps of the production of a weaving tool (weft beater, *tazzut* or *taska*) by Mohammed, blacksmith of the Sirwa mountains, was produced for archival and museological purposes. One article on the subjectivation of this blacksmith was published (Naji, Ait El Housseine 2023); the current article provides methodological insight into this.

Research funded by EMKP presupposes long-standing relationships with participating communities and, therefore, in-depth ethnographic knowledge of the field. As such, since 2002 Myriem Naji (2008) has carried out a large number of observations in the smithy, the family house, the shop-workshop and in the village of Mohammed and his family. Initial filming took place at the end of 2002, but one tape was damaged. On the 21 May 2022 she filmed with her assistant Amine Ouchahoua the making of a weft beater and a pair of shears. A second visit took place a week after, with Marie-Pierre Julien, Amine and Hamza Ait El Housseine to conduct elicitation interviews based on film clips and to do a second round of filming. Myriem Naji has since returned on several occasions and interviewed Mohammed's father-in-law, an octogenarian blacksmith who died at the end of 2024.

1.2 The socio-technical dispositive of video shooting: an embodied, cognitive and distributed filming observation

Lacking the opportunity to acquire blacksmithing skills, we started with the following EMKP methodological guidelines: prior to recording, commence by observing the making of the object. Then, to access the practitioner's reflexive emic perspective in his mother tongue, request and record audio-visually an account of the various stages of production (or chaîne opératoire, cf. Coupaye 2009 and 2022) through a semi-structured

interview; this approach may be repeated after the completion of the process. Additionally, consider using video, photo or object (Ryder and Miller 2026) elicitation interviews.
In 2002, we had already filmed in their smithy Mohammed, his father, and his brother Abdallah making a weft beater. Abdallah's sons then aged between two or three, were busy imitating the adults there. In May 2022, we attempted to conduct a semi-structured interview with Mohammed. This method seemed appropriate to us, as the noise, stress, speed of action and sequence of events can be incompatible with discursive practices. During the production of the tool, however, whenever we tried to ask for an explanation, Mohammed was forced to interrupt his work and stop the electric bellows to listen to us and give us his answers, often very concise. Moreover, Mohammed only exchanges very short words with his assistant. The blacksmith declined the proposition of an interview, deeming it irrelevant, since his conceptions of work and pedagogy imply an engagement and understanding through the body. He does not reject the use of words, but he suggests that, in order to understand his craft, one should first observe and film (which he considers to be similar) before asking questions: "You will see in the smithy", he informs us.

We have used the method of "filming observation" (Lallier 2011) (or video shadowing Torterat 2024a&b), which we develop through a praxeological, material and cognitive approach. When she is filming the anthropologist is engaged corporally, cognitively and emotionally in the dispositive of the smithy. If for MacDougall this mental and corporeal reflexivity leaves: "the imprint […] of our being as well as the meanings we intend to convey" (MacDougall 2005: 3) in the image, here, we are interested in film/video as a research process rather than as a product. The process of image-making becomes an act of thinking through filming that implies a keen, active and attentive sensitivity and awareness that "extends […] the continuity between gesture, observation, and description" (Grimshaw and Ravetz 2015: 270). The body-in-action-with-its-camera (and other tools: tripods, notebook and pens…) is heuristic and analytic. Filming observation constitutes therefore a situated, embodied and distributed cognition: with and through the camera, we think by focusing our attention, by selecting where to look, by anticipating (or failing to anticipate) the blacksmith's movements, by choosing to abandon the tripod in favour of holding the camera up to our eye, to incorporate it (Grimshaw and Ravetz 2015; Lammer 2007[6]; MacDoughall 2005; Rouch quoted by Buob 2020) more intimately to our corporeal schema and to 'touch' more closely what we are observing from a distance.

In addition, filming observation is multimodal, involving not only the five senses, but also the vestibular sense (spatial orientation and balance) and proprioception (sense of one's movements and body position through muscles and joints); thus we multiply the perspectives and framings of Mohammed at work as suggested by the EMKP : from above, from below, from the sides, or very close up. This requires us to get closer to the hearth and the fire, despite the heat and sparks, to crouch down, lean over, and find stable

[6] Lammer (2007) writes about camera (or screen) protheses, in her 'somatic' embodied and material research on radiologists and their patients.

positions when filming while standing. In addition, in order to accomplish their work effectively all the protagonists (the blacksmiths but also the researchers) must incorporate each other's body into their body schema. Thus, filming is not only a subjective and reflexive activity (Pink 2009; Grimshaw and Ravetz 2015; Rouch quoted by Buob 2020; Ernwein 2022), it is also a social one. Pink (2009) reminds us that this engagement in a material, sensorial and social environment – what we call the technical dispositive – creates an intersubjective relationship between researchers and their interlocutors and transforms them.

Figure 1 In the smithy. At the back right-hand corner, Abderrahman, Mohammed's assistant, is resting. Hamza and Myriem face Mohammed. Marie-Pierre and Amine (in the blue cap), who cannot bear the nocif air are at the threshold of the smithy. Facing Amine, Abdallah, Mohammed's brother works on a knife. The young man on the left of Amine is Lahsen, one of Mohammed's sons. Photo by Marie-Pierre Julien, 2022.

The filming observation of the smithy is a laborious experience in a hostile, cramped, dark, stifling, extremely hot and noisy space. Yet, Mohammed and the researchers do not share the same experience of working in this smithy, nor the same sensory and cognitive behaviours[7]. Amine, who is asthmatic frequently goes out. Marie-Pierre cannot bear the heat, she feels she may faint, the dry, harmful air burns her throat and she worries about its effect on her health. The relief she feels when she drinks a little water disappears as soon as she swallows it. We do not approach the situation with the same bodily capabilities as Mohammed, who has learnt before he was 7 to live in his dangerous environment and has developed appropriate techniques of the body and practices of the self. He alternates blacksmithing with other activities: agricultural work, shepherding, travelling to weekly and annual markets; praying five times a day also constitutes moments of respite.

[7] Indeed, the work that we do with our cameras justifies our presence in the smithy; in contrast, Cant (2023) mentions her ambivalent position and the critical view Mexican craftspeople take of her when she is not busy with an activity (painting wooden objects, taking notes).

We share the practice of professional technical actions in this dangerous space, but it is not the same task. We are bound by a contract: making and filming the making of a tazzut/taska within a deadline. For our part, these videos had two objectives: to document and record an endangered knowledge and to compile a body of data for scientific analysis. We experience the stress of failing to capture an important step or not to grasp what is going on. But there is a difference of responsibility and of emotional and cognitive cost between him and us: in the smithy, Mohammed is responsible for our safety, in addition to his own, that of his assistant and that of his brother. Not only are we numerous but we are also ignorant of the dangers and on several occasions he has to tell us to move away with our tools. Thus, this video dispositive in the smithy brings together all participants, each engaged in laborious work on their own materials and tools, and each from their diverse subjectivities working on themselves to endure the hostility of the environment. More specifically, we are dependent on each other here, for our safety and to achieve our common goal.

Filming observation highlights our diverse sensory-motor experiences inside the smithy: our respiratory problems, the sweat running down our clothes, the sensation of sharp burns on our skins. As 'mapist' researchers[8], our filming observations are guided by a sensitivity to movements that incorporate tools and the material environment, by an active identification of the perceptual and cognitive processes that engage materiality. But they only partially inform us about the relationship that Mohammed establishes with the smithy, and which appears in the images; for example the effects of the proximity to the hearth on Mohammed can be noticed on his face glistening with sweat; his body's reaction to the hammer blows is visible when he grits his teeth or squeezes his eyes shut. This method enables us to formulate some hypotheses on the fact that his skills and embodied and distributed cognition are inherent to his subjectivation, on his work on himself to control his organism and materials, on his decision-making processes and strategies[9]. To verify and explore these hypotheses by comparing them with his verbalised reflexivity, we therefore combined filming observation with the elicitation interview.

[8] The Matière à Penser (MàP) group was founded in 1994, bringing together Master's and DEA students around Jean-Pierre Warnier, Professor of Anthropology at Sorbonne Paris V-René Descartes, to reflect on the relationships between humans and their material cultures at a time when semiological epistemology reigned supreme. The name was chosen in January 1995. The group has published six collective works. The two authors of this article played an active role in its founding or running. Their respective doctoral theses reflect the theoretical reflections developed within this group. The two main contributions of this group encompass the examination of the political and ethical dimensions of material culture through the analytical framework of Foucault's later work, as well as the centrality of the body and its material cultures in human beings' relationship to the world. In particular, extending Mauss' techniques of the body, and drawing on insights from cognitive and neurosciences, they have shown that the active, moving body - and thus the perceptive, sensory, visceral and emotional organism -incorporates material cultures via the body schema, a dynamic and extended model of the moving body in the brain (cf. Holmes & Spencer 2004; Nourrit, & Rosselin-Bareille 2017; Rosselin-Bareille & Warnier 2025).

[9] In French the expression 'logique d'action' (logic of action) covers the idea of decision-making and strategies. This concept stems from Max Weber's theory of action, which, in Economy and Society (1921/2019), defines four types of action (rational-instrumental, rational-value, affective and traditional). It was later developed in sociology, notably in the early issues of the journal *Raisons Pratiques*, published from 1990 onwards, and in Dubet's *Sociology of Experience* (1994).

1.3 Dispositives, governmentalities and subjectivation process

Mohammed absorbed his knowledge and skills from a young age through observation and imitation. This form of learning values doing over talking and contrasts with the formalisation of skills in contemporary Euro-American craft institutions (Marchand 2021). While there is no doubt that all practitioners are reflexive, moments of personal deliberation are not necessarily expressed verbally and publicised. Embodied, situated and distributed knowledge and cognition are all the more irreducible to language because they transcend and elude it (Harris 2007; Marchand 2010). In addition, discursive production and reflexivity can interfere with technical efficiency, which requires thinking quickly and with the body (Faure 2000; Warnier 2011)[10].

Studying expert practice involves an examination of the diachronic elusiveness of embodied and cognitive knowledge, acquired over a long period of time. On the one hand, there are embodied and pre-reflexive practices, routines and habitus that are certainly intelligent and cognitive but are not verbalised. On the other hand, reflexivity and creativity can emerge when confronted with problems that invite an objectivation of practices in order to find a solution (Faubion 2001; 2011; Marchand 2016). For the ethnographer, one method is to observe learning situations. An alternative is to become a blacksmith (Keller and Keller 1996), weaver (Dilley 1989; Naji 2008), boxer (Wacquant 2006), tailor (Prentice 2015), builder and woodworker (Marchand 2001; 2021), potter, wood and slate worker (Gowlland 2015 ; 2020), capoeirist (Downey 2005) or watchmaker (Muntz 2020). By objectifying their subjective and embodied experiences of materials through analytical writing and comparing their interpretations with those of their interlocutors, researchers can gain some insight into emic pedagogical norms, representations of knowledge, cognitive processes[11], and even the nature of this cognition.

We started from the hypothesis that all expert professional subjectivation is a formation of bodily intelligence, in line with studies in skilled practice, and situated, embodied and distributed knowledge and cognition (Marchand 2010b; Lave 1991). Our analysis draws on the anthropology of work and professional identities, craft, techniques, knowledge and subjectivations.

Mohammed is in his sixties and has more than 50 years of experience behind him: he defines himself and is considered as an expert. The aim here is to understand how 'doing' and making is at the centre of the process of subjectivation through the transformation of the 'being' (Rosselin-Bareille 2017) that it engenders. The making of the weft beater requires from the blacksmith a work on himself that transforms his organism (body and mind) as he negotiates and manages the resistances and affordances of tools and materials mobilised in this production within the smithy. Our methodology adds two

[10] In addition, anthropologists show that there is often cognitive dissonance between discursive practices and procedural practices. Certain representations or conceptions may be unconscious or unverbalised, even if they are problematised in other forms in everyday life and socialisation (Warnier 2004; 2012).

[11] For a discussion of the subjective gap between the ethnographer and her interlocutors see Warnier 2011 and Gowlland 2021.

sociotechnical dispositives to that of the smithy: the video shooting in the smithy and the elicitation interview in Mohammed's house.

From Leroi-Gourhan's ' operational syntaxe' (1964: 164) to Levi-Strauss' 'bricolage' (1962), the concept of socio-technical dispositive (also described as assemblage, systems, apparatus, milieu[12]) has been explored not only in anthropology but also in sociology (Dodier and Barbot 2016), philosophy of techniques (Simondon 2006), political philosophy (Foucault 2001: 1588), history of image/art and cinema (Aumont 2020; Albera and Tortajada 2015). The value of this concept lies in its holistic, non-dualistic nature, and in its recognition of the transformative and generative effects of humans, materials and objects, and their relationships. Aumont (2020: 101-154) identifies four qualities present in all socio-technical (mediatic) dispositives, each of which is unique: 1) all closely link the material dimensions (devices, materials, space/time, bodies) and cognitive dimensions (thoughts and emotions) of human activities. 2) All involve an organisation of space and time. 3) They are not static but dynamic, leading to the interplay of the accumulation of socialisations and knowledge until their actualisation, sometimes generating creativity (Deleuze 1988; Berten 1999). 4) All aim for a result. We share these observations but, from an anthropological perspective, we are also interested in subjectivities, governmentalities, forms of power, and networks of actions that emerge differently within each socio-technical dispositive.

This dynamic of the dispositive and its governmentalities generates specific subjectivations (Julien 2015) which, in Foucault's work, encompass three distinct but overlapping processes: ontological, identificatory and historical. The ontological aspect (1994: 632) stems from the fact that human children are born incomplete and become fully human through their relationships with others and their reflexivity about their own actions. This slow biological and psychological process is eminently social (Kaufmann and Skuza 2008). The identificatory dimension (1994: 134) stems from the fact that a subject adopts various behaviours, skills, emotions and language patterns that other people offer to them as models, in different contexts. These identifications (Cuche 1996) can be multiple (Lahire 1998) and shape the history of each subject. Mohammed is a father and grandfather, he is the eldest son, he inherited the family smithy as well as the male blacksmithing skills, and is also a farmer, muezzin and veterinarian. Finally, the historical dimension of subjectivation (Foucault 1963; 1975)[13] focuses on the socio-technical dispositives and governmentalities that enable the emergence of a particular form of subjectivation. This political process means that a subject, born in Morocco in a rural area of the Anti-Atlas in the 1960s and having never attended school, differs from a young Amazigh doctor in history, originating from the Telouet region in Morocco and born in the 1990s, from a female Franco-Moroccan researcher who has spent the first 15 years of her life in Morocco or a female researcher who grew in the 1970s, on a housing estate with nine buildings, 20 detached houses and 3,000 inhabitants in the Paris suburbs. They

[12] This conception of the dispositive is very similar to that of 'milieu' developed by the members of the Centre for the Anthropology of Technics and Technodiversity (CATT) at UCL. https://www.ucl.ac.uk/social-historical-sciences/anthropology/research/centre-anthropology-technics-and-technodiversity-catt.

[13] In this sense, Foucault is not concerned with the origins of forms of subjectivation.

have not developed the same perceptions, emotions, cognition, sensory-motricity, they do not grasp situations and the world in the same way and have not developed the same tastes and skills (Julien 2004; Julien and Rosselin 2009; Rosselin-Bareille and Warnier 2025). But there is also a history and a geography of blacksmith subjectivities, which mean that Mohammed is not a blacksmith like those studies by Martinelli, Warnier or Dieterlen (Griaule and Dieterlen 1965) or even the father of Lala Fadma Lhaddadi who practiced his trade in the Igherm area between the 1930s and 1960s.

Figure 2 *Mohammed focused on his task, his face glistening with sweat.* Photo by Marie-Pierre Julien, 2022.

One of the advantages of this definition of subjectivation is that it combines both the constraint of socialisation and the subject's agency through her reflexivity. Her agency is perceptible in the practices of self through which the subject transforms herself by problematising the events and contingencies she encounters. Within the dispositive, the subject constructs an ethic (Faubion 2001; 2011, Moore 2011), that is, her situated version of morality, embedded in specific governmentalities. This ethical self-construction (Mahmood 2006) demands that the subject works on her own resistances to physical or cognitive effort, to transformation and change. In other words, she negotiates the constraints and affordances that society imposes on her agency through the materiality of her organism and her environment[14]. The Foucauldian theory of subjectivation offers us a heuristic entry via the body and its governmentalities (Julien 1999; Warnier 2001; 2011). Furthermore, this negotiation between the human organism and material cultures

[14] Mahmood highlights how the Foucauldian perspective enables us to move away from a dualistic, Eurocentric and liberal conception of identity formation that opposes constraints and freedom. It should be added that constraints themselves can constitute affordances or possibilities for action, particularly in terms of learning. Mahmood (2006: 29) and Warnier (2004: 182-3) refer to the self-discipline to which musicians submit.

engenders skills and knowledge (Marchand 2008; 2010b; 2021; 2024) which construct subjectivities. To gain access to this subjectivation process, we have put in place another dispositive: the video-elicitation interview.

2. Elicitation interview: a way of verbalising, participating and making social relations visible

Despite the irreducibility to language of experts' know-how, and to a certain extent of subjectivation, the task of the anthropologist is to offer in a discursive and textual form, a translation of the embodied experience and cognitive processes of her interlocuters. The video elicitation interview is a means of access, albeit limited and incomplete, to the professional subjectivation of Mohammed, by confronting our respective experience of the dispositive of the smithy. After defining the method, we will explain how we implemented it in the field and the benefits it has yielded.

2.1 The video elicitation interviews: a methodology to access embodied subjectivities

We use the term 'video elicitation interview' (VEI) to describe a method that is also known, depending on the specific discipline, author, and language[15] as: *video-elicitation, video-cued ethnographic research, video reflexive ethnography, elicitation strategy of self-confrontation* (Gore et al. 2012: 131). All these methods have in common the fact that they elicit participants' words based on viewing video recordings of an activity. They differ in terms of content and who performs the recordings.

The pioneer was Germaine Dieterlen who, in 1964, suggested to use the film as an 'interview' guide with her interlocuters during fieldwork (de France, 1989 [1982]: 305 quoted by Buob 2009; Toreterat 2024), but from 1957, Collier initiated this method using photographs; it was later taken up by Harper (2002), who distinguished between 'photo feedback'/'photo interview' (elicitation) and the 'photo essay' (ibid.). In fact, Rouch used the term 'feedback' in 1952 to describe the methodology used in his film 'Bataille sur le grand Fleuve' (1952). VEI was adopted in cognitive anthropology, sociology, psychology and ergonomics to circumvent the pitfalls of semi-structured interviews, which can be heavily influenced by researchers' emic categories (Cahour, Salembier and Zíounar 2016). Its purpose is to facilitate participants' verbalization of their lived experiences. In particular, it enables them to explain their reasoning, decisions, strategies and solutions deployed in action, as well as their emotions (Torterat 2024). While the self-confrontation method developed by Theureau and his colleagues does not necessarily aim to change the behaviour of those involved, VEI can also be used to improve working practices in medical or organisational research. In France, from the 1980s, with this transformative goal in mind, Vermersh, an occupational psychologist interested in subjectivities, developed the 'explicitation interview' to stimulate workers' reflexive verbalisation of their

[15] In French these include: *re-situ subjectif mobilisant la vidéo* (Rix et Biache 2004; Rix-Lièvre, Cahour et Guibourdenche, 2024), *entretiens d'explicitation avec présentation d'un support vidéo en amont* (Mouchet 2011), *entretien de remise en situation par les traces matérielles vidéo* (Theureau 2010).

ongoing cognitive processes by placing them in specific situational contexts - using photographs rather than videos (Vermersh 2015). In addition, VEI is used to capture the personal experiences of marginalised actors, counterbalancing power asymmetries by enabling participants to be included in a more collaborative manner (Liebenger 2009). Despite the importance given to participants' subjectivity, the process of professional subjectivation is not regarded as a research topic in its own right by these scholars. Cuomo (2026) is one of the few anthropologists using the video elicitation method to analyse the subjectivation of Congolese immigrants as musicians. Two other researchers, even if they do not claim to do so, seem to be concerned with the subjectivation of their participants: Sanou (2026) on the trances of Burkinabe teenage girls and Groud (2026) on amputees.

2.2 Implementing the VEI socio-technical dispositive to access Mohammed's subjectivation

As soon as we arrive at around 8.30 in the morning, we set up the technical dispositive in the bright courtyard of Mohammed's house. He lays a knotted carpet and a low table for our laptop. Hamza and Myriem sit next to Mohammed to watch the selected images together. The camera is not pointed at the screen but at the three people talking, and Mohammed faces Amine's static camera. Marie-Pierre, with another camera, moves around freely, filming and taking photos. Thanks to the camera's flip-up screen, Amine can maintain eye contact with Mohammed, who himself sometimes chooses to look directly into the camera rather than at the screen or at Hamza and Myriem. Mohammed seems at ease in front of the camera, perhaps because this is the fourth time, we have filmed him. Hamza translates into *tashalhit,* Mohammed's mother tongue, the questions prepared by Myriem or asks questions that seem relevant. In order to encourage subtle and detailed descriptions of metallurgic motor actions and sensory perceptions we ask him: "How do you know that? What are you doing during this stage? How do you manage to do that? Here, you seem to be thinking deeply. What are you thinking about?" We ask him about his relationship with the materials and elements (air, fire, water) of the smithy: "How do you manage to withstand the heat and breathe this harmful air?" We also ask very specific technical questions such as: "When and how do you know when to remove the iron from the hearth? Why do you sprinkle water on the embers? How hard should you strike the hot iron, when and where exactly? Why is the iron cold at this stage? Why do you work alone here and with someone else there?" Regarding the coordination of the strikes with his assistant: "Does the assistant strike in a different place? Why are the outer tines and the middle tine of the tazzut/taska thicker?" We also asked him about technical terms[16] and the sources of his materials.

[16] From a technical point of view, seeking linguistic clarification can be highly heuristic: Hamza's explanation of the term ifard, (which is not specific to the smithy's basin) gives Mohammed the time or inclination to talk about the function of this basin in a context that we have not observed: forging an agricultural tool. Similarly, unexpected additional elements emerge from the VEI that demonstrate the significance of examining terms even if, in his or our eyes, such an endeavour initially appears to be of little utility. For example, our questions to verify the names of the different parts of the tazzut/taska led him to describe a partial operational chain of its production that we had not been able to obtain in the

Figure 3-4 *Our video elicitation interview dispositive*. Photo by Marie-Pierre Julien, 2022.

Despite its potential to encourage discursive production about expert technical skills and practices, VEI is rarely used by anthropologists studying craft, techniques and expert embodied knowledge. This is evidenced by a recent special issue of the French journal Méthodes Visuelles (Hamus Vallée ed. 2026), which reviews the contribution of elicitation interviews to recent sociological and anthropological research across a wide variety of fields[17], but none on craft. One reason identified by Buob (2009) in his study of Moroccan brass or coppersmiths in Fez is that confronting them with their own images highlights the hardship of their profession and contradicts the narrative of valorisation they endeavour to construct. In contrast, in the United Kingdom, this method is more commonly employed by researchers, not anthropologists, who are interested in the creative decision-making and/or cognitive processes of craftspeople, artists or designers (Wood 2006; Harper 2013, Patchett 2015).

By focusing on specific moments in the manufacturing process that we wished to discuss with Mohammed, the elicitation interview facilitated a more precise exchange, enabling us to clarify misunderstandings through a process of double distancing: first through the filming itself, and second through the interview that followed (Delbos 2026). To this end, the video method enables us to capture the technical process in a more dynamic, temporal and physical manner (rhythms and sequences of action, sounds, interactions) than photo elicitation. Furthermore, with the VEI, there is no need to interrupt the technical performance which, requiring concentration, can be disrupted and altered when the practitioner reflects (Gore et al. 2012: 138) on matters not directly connected with his actions. Thus, Mohammed is more inclined to speak outside the smithy (see below). VEI offers the possibility of reliving past activities at a later time, of

pre-filming discussion (MVI_2591). Finally, although we had asked him during the production of the patterns whether each punch had a different name, the question was clearly inadequate, since during the VEI he offered the names of the patterns corresponding to each type of punch without being asked (MVI_2593; MVI_2594).

[17] This issue, edited by R. Hamus Vallée (2026), includes articles on the reorganisation of the self-managed cinema *La Clé* (Delbos), the Sisa epidemic (Cesaro), seduction in the post-MeToo era (Dinelli), the use of digital self-presentation by young Japanese athletes (Duteil-Ogata), the use of mobile phones whilst driving (Louveau de la Guineraye), amputee patients (Groud), elderly people in France (Grosperrin Legrand), the trances of Burkinabe teenage girls (Sanou) and Congolese rappers living in France (Cuomo).

objectifying them through verbalisation; it addresses the fact that it is often impossible to speak and act at the same time; it allows for pauses, rewinds, checks or comparisons with other clips.

Reviewing the films several times allows us to make connections between observed actions and transformed materials[18], identify technical aspects that were not noticed during filming[19], or revise erroneous hypotheses[20]. Thus, whilst film prompted us to explore in greater depth our questions regarding the blacksmith's cognitive and decision-making processes, academic writings required us to conduct an explicit and reflexive discussion with Mohammed for validation. Furthermore, the use of language and its validation became essential for us to fulfil our role as mediators or translators (Asad 1993; Feder-Nadoff 2022; Geertz 1973) between his world and the worlds of academia and the general public. Our utilisation of VEI is founded both upon established practices within the anthropology of work and craft and upon our own questions. What we find particularly relevant to the study of professional subjectivation is not so much the recollection or confrontation of past actions, but rather the creation of a situation in which the expert can shed light on their thought processes, their conception of materials, and their relationship to themselves and to other actors and entities. We postulated that by asking technical questions about certain stages, actions and technical choices, we would bring out data that is not directly related to the practice observed in the clips shown. In other words, that an understanding of technique as situated, embodied and distributed action and cognition would provide us with information about the ethical values that contribute to Mohammed's decision-making and his effectiveness as an expert, his representations of the smithy and his subjectivation.

3. The video-elicitation interview: verbalising decision-making processes and gaining access to subjectivation processes

In this final section, we will explain how the VEI enabled us to gain some insight into the process of subjectivation, the dynamics of social relations that shape Mohammed's professional practice, as well as some of his worldviews.

3.1 Discussing the blacksmith's cognitive processes, strategies and worldviews

Whilst logo-centrism within the social sciences and humanities has obscured the significance of the organism-engaged-with-its-material-cultures in understanding the world (Warnier 1999 and 2009, Rosselin-Bareille and Warnier 2025), VEI can foster a dialectic between action and language by enabling the participant to elaborate on his

[18] Thus, Mohammed remains crouched or seated when his striking is relatively weak, whereas he stands upright for more vigorous percussion and swinging motions when, in collaboration with his assistant, he handles hot and thick iron.

[19] For example, once the base of the tool has been forged, what previously appeared to be the top is turned over during the forging of the handle and becomes the bottom part of the weft beater.

[20] Thus, the pattern on the central tine is engraved with a file whilst in the smithy, and not, as initially thought, at the same time as the rest of the decorations which are made using punches outside the smithy.

embodied knowledge gained through practice (or, to use his word through "experience").

Thus, when asked, "What are you thinking about here?", the blacksmith explains that he is anticipating a future step and wondering whether he has sharpened his tool (MVI_2593). When asked why he did not use the ring he made in front of us, he explains that it was too narrow, indicating that even at this level of expertise, a blacksmith can make mistakes or fail (MVI_2592). We also obtained some data on his multisensory or multimodal categories (Pink 2015; Howes and Classens 2013; Sanou 2026) that would be worth exploring further. Thus, his professional vision (Goodwin 1994; Grasseni, 2004) is also haptic. He tells us that to assess whether the iron is ready to be immersed, he uses his eyes, but also his sense of touch via the filing tool. The file, incorporated into his body schema, becomes a perceptive extension of the nerve endings in his fingers, which gauge the texture, density and limitations of the material. Similarly, his expert vision allows him to identify when it is time (thanks to specific types of sparks) to remove the tool from the hearth (MVI_2590). This capability to gauge quickly, accurately and subtly through the body also applies to the processing of iron, which, depending on its thickness or density, is assessed in the initial stage of cutting the iron[21] (MVI_2591).

While filming observation gave us an immediate and diachronic access to his work on both himself and materials, VEI encourages him to be reflexive about his technical practice but also demonstrates his pedagogical efforts towards us. Thus, during the VEI, Mohammed, aware of the gap in knowledge and perception that exists between his experience and ours, strives to translate the concept of 'good measure' and 'temperance' by evoking the metaphor of the 'scale'[22]. When viewing the clips (MVI_2588, 2590), he mentions the accuracy with which the two blacksmiths judge the hardness and density of the type of iron in order to adjust the degree of striking force 'neither too strong nor too weak' (MVI_2587). Through this threshold concept[23], he helps us to better understand the complexity of his sensory knowledge, which is at once embodied evaluation, action and anticipation. Furthermore, he corrects our assumptions about the violence of the strike: strength and muscles matter less than subtle haptic, visual and kinaesthetic accuracy, which engages the vestibular sense and proprioception as he adapts to the metal's various degrees of hardness, thickness or heat. In doing so, by transforming our understanding and perspective on his work, he alters our relationship to him. In fact, he should be recognised here as a co-producer of the analysis of temperance in the 2023 article. We found this metaphor of the scales so effective that we reviewed our observed and filmed data in light of this concept, placing it at the heart of our analysis of the blacksmith's subjectivation. His cognitive sensibilities[24] are also exercised in the

[21] This assessment also takes place when purchasing recycled iron.

[22] Mohammed makes these tools to measure weight himself. In the region a common saying is: 'ayn al-mizan', the eye is the scale, or in Arabic 'Aynak mizanek', your eye is your scale. The term scale is used in the sense of a practical or embodied (visual) assessment.

[23] Meyer and Land's (2005) 'threshold concept' refers to a concept that may be problematic and difficult to grasp but is fundamental to understanding and mastering a subject. A good teacher focuses on threshold concepts rather than overwhelming their students with too much information.

[24] Marchand uses the term mathematical perceptual sensibilities (2018).

embodied assessment of temporality and volume when he quenches the metal in water or exposes it to fire: Mohammed explains that the forged tool must be left "not too long, but long enough to retain the shape we want to give it". This sense of measure also serves to assess the potential risks of injury and to ensure the successful completion of the final object (MVI_2591). Without Mohammed's pedagogical work that the VEI encouraged, the importance of this question of measure would have escaped us, not only because of its elusiveness and conspicuousness to the expert and invisibility to the lay person, but also because it corresponds to a complex ethical behaviour that underlies the acquisition of skills and the subjectivation process. In a social context where 'heroism' and 'technical ego' are not cultivated because it is frowned upon to show off, the self-discipline that Mohammed displays on a daily basis is minimised by formal or normative phrases: "that's just how it is"; "it's part of my job"; "I've been doing this since I was a child". However, this work on himself shapes him as a responsible family man and good Muslim, with a sense of duty and engaged in a network of actions on the self: "you have to earn a living".

Like anthropology, image-making is fundamentally relational and collaborative, since filmed participants play an important role in the production of knowledge. It is not only a question of recognising the agency of the technical visual dispositive (which includes our presence) on the participants. In line with artists and art theorists (Aumont 2020) and anthropologists who use visual approaches (Ramssusen 2015; Gowlland 2018) it is important to highlight the agency and gaze of the people filmed or photographed as they act on photographers and viewers, expressing intentions and feelings, even in catastrophic or hegemonic situations (Azoulay 2008; 2016).

During the video shooting in the smithy, Mohammed sometimes watches us out of the corner of his eye, but he is too focused and preoccupied to think about anything other than the different stages of production and our disruptive presence. At home, in the calm domestic space where the responsibility for hosting guests falls mostly on the women, he is more relaxed. In addition, the implementation of the technical dispositive has prepared him for the interview, during which, smiling, perhaps flattered to be the centre of our attention, happy to have an audience that appreciates his work, but also proud of his craft and expertise, he happily plays along. Far from being problematic or artificial because it is foreign to his daily experience, by placing him in the rewarding position of a teacher, the VEI gives Mohammed legitimacy in speaking in a space-time created by the technical dispositive. Indeed, in other situations without a camera and with only Myriem and Amine as his audience, he does not seem as motivated. Furthermore, here, Mohammed controls and chooses what he wishes to talk about.

This becomes clear during the VEI, when we return to a few snippets of religious and cosmological information that had emerged during breaks in the smithy. His refusal or lack of interest in these questions reminds us of the limitations of the VEI and of any recorded or public interviews[25]: certain information, including professional secrets, cannot be disclosed publicly, or is disclosed differently depending on the audience (Martinelli 1996). His silence on the jnûn and his medicinal knowledge could also be a

[25] A semi-structured interview, based on a questionnaire sent by Myriem, was also conducted by Hamza in a Taznakht café.

response to the taboo of naming non-humans or to the pressure exerted by national religious orthodoxy on so-called "non-Muslim" beliefs and practices.

Nevertheless, Mohammed reminds us that the Prophet Dawud (David) gave human beings the tools of the smithy (tongs). His conclusion is enlightening: "it is God's will to have given blacksmiths this source of income and this profession" (MVI_2591). He repeatedly points out that his expertise (his mastery of fire) depends on his moral conduct and therefore on God's will (MVI_2590). He does not claim to be the sole master of the smithy and its art. He suggests that he shares this power with other entities that participate in the manufacturing process. The agency of fire, in particular, is significant. When asked about the importance of physical strength (MVI_2594) or effort (MVI_2591), he replies that what matters are skills (*snaat*) or the fire: "Strength lies in fire; it is fire that controls" (MVI_2591). According to him, the blacksmith's ethics involve respecting the rules: "every profession has its rules, and becoming an expert requires respect for [the fire and its demands] and piety (*tslim ness*)". This respect is evident in his refusal to speak pejoratively about the fire when our question suggests that it is a difficult element or material. "Fire is a blessing from the Prophet Dawud, who enabled humans to control it. The proof is that fire heals, and its sparks only burn superficially." Indeed, the back of his left hand, the closest to the hearth, is marked with burns. But the incorporation of smoke, air and heat when he forges also transforms his senses and his emotions. He does not feel the pain of burns, which he interprets as divine benedictions, a perspective that is in line with the medical-magical practices of the women of the region. It should be noted that, unlike him, his younger brother, also a blacksmith, protects himself from burns by wearing protective clothing, including gloves, which indicates a different relationship to fire and his profession.

These examples demonstrate the heuristic value of the VEI for studying the processes of subjectivation of a blacksmith based on his discursive reflections on his expert practices, practices that transform iron as well as himself. This method gives us access to a rich description of his perspective on his relationship with the dispositive of the smithy, complicating our understanding of the governmentalities that frame the processes of subjectivation, far from a dualistic vision opposing control over/submission to the materials.

3.2 The blacksmith's involvement in various networks of actions

In order to highlight how power relations constrain bodies not in a global way but in terms of possibilities and impediments to action, Foucault suggests that we focus on networks of actions. He shows that all human actions are not only socialised (responding to norms) but also social (dependent on other members of the group) and that power relations are always situated and contingent. In this sub-section, we analyse information obtained through both traditional observation and VEI to reveal the gendered, generational, professional, racial and class power relations that exist in Mohammed's society, as well as those that emerge from the postcolonial relations that bind us to him.

The long period of time spent during fieldwork and the successive visits allow us to reconsider our ethnographic data in light of new information gleaned in the field,

sometimes by chance, in order to understand the social dynamics within which the socio-technical dispositive of the smithy is embedded. These social relationships may escape researchers or be misinterpreted when viewing the film alone, since the film is always coloured by the filmmaker's analytical perspective. Thus, after the publication of the first article on the smithy, a visit to film the making of a pair of carpet scissors forced us to reconsider our conception of the blacksmith's expertise, which we had confused with the power he exercised over his assistant's performance. Mohammed had chosen the wrong day for our visit, which turned out to be the day when his younger brother was in charge of the hearth. Depending on the day, the positions of head blacksmith and assistant are interchangeable. In this case, both Mohammed and ourselves needed to solicit Abdallah's cooperation, and it was Mohammed who took on the role of assistant. This incident highlighted the fact that the assistant can also be an expert: the prerogative of controlling the hearth and the assistant's work is temporary and not linked to technical superiority but, as we discovered, to economic power: the ownership (even shared) of a smithy. The assistant, who often remains outside the framework of the camera and who we had only filmed when he helped and was resting, acquires a certain significance. In this position, he works on himself to adapt to the head of the smithy of the day. He focuses his attention (MVI_2591) to respond appropriately and accurately (MVI_2588) to the blacksmith's embodied performance and his interjections, but he also anticipates his needs and is responsible for preparing some important stages in the manufacturing process. Above all, as Mohammed recalls with emotion during the VEI, an inattentive or clumsy assistant can ruin several hours of work, committing an irreparable mistake. His emotion informs us about relationships of sociability, collaboration, trust and dependence. This situation shows how power circulates between the actors[26] (Foucault 2001) and how power dynamics are redefined in action.

[26] Michel Foucault suggests viewing power "as something that circulates […which] is never located here or there, is never in the hands of certain people, is never appropriated like wealth or property. […] In other words, power passes through individuals; it does not act upon them'. A little further on, he clarifies: 'the individual is not the counterpart of power; he is, I believe, one of its primary effects" (Foucault 2001:180).

Figure 5 *Abderrahman, Mohammed's assistant on that day, checks one of the bellows' engines*. Photo by Marie-Pierre Julien, 2022.

Furthermore, each subject inscribes their performances in different networks of actions, as shown in the following anecdote, which tells us about gender relations in Mohammed's family. Although he had previously downplayed the importance of physical strength (emphasising instead the power of fire and the importance of technical skill), when his older sister, who was present during part of the VEI, tells us that she helped her father until Mohammed was old enough to take over, he invokes "the necessary physical strength" to explain why women are not blacksmiths. His father-in-law, more diplomatic with regard to the gender of the researcher asking the question, considers them "too busy with other activities to be able to devote themselves to blacksmith work".

Finally, Mohammed's production of tazzut/taska is embedded in a supply chain that connects makers and consumers. During the VEI, Mohamed showed us the tazzut/taska that his father had made. It was a very heavy tool, unlike the ones he makes today. He explained that he responds to requests from local weavers who prefer lighter tools. In recent years, he has added a bar perpendicular to the tines. Weavers requested this modification to replace the leather or thread straps they used to add to keep a regular spacing between the tines. In addition, Mohammed's methods of forging and selling are part of a wider network that includes other competitors, 'the welders[27]', mentioned several times in the interview. They represent a foil that demonstrates the value of the work of blacksmiths, who make solid tools that can withstand wear and tear for a long period of time (MVI_2590). Indeed, unlike planned obsolescence, durability and repair are included in the ethical design of the tazzut/taska: fifty years on, weavers can bring

[27] Their name, 'soudeurs', borrowed from the French, refers to a more recent profession using a post-colonial technique/technology.

their tools back to him, and once the tines have been shortened, they are as good as new. Unlike Mohammed, welders make weft beaters that are cheaper but less sturdy. Instead of a single forged piece, the elements are welded together, which is a less solid join. We were able to gauge the value of Mohammed's work from the admiration and envy of the weavers of Taznakht-Qazba, who pass down their forged tazzut/taska from generation to generation. Despite the competition they represent, Mohammed has never criticised the welders. He simply says that their tools are cheap and that "everything has its place and its price", demonstrating a moral behaviour dictated by a local norm that combines honour and modesty, politeness and restraint.

Figure 6 *The tazzut/taska forged by Mohammed's father. The burn marks on Mohammed's left hand are visible*. Photo by Marie-Pierre Julien, 2022.

Obviously, the ethnographic situation, centred on the making of the tazzut/taska, also involves social power relations specific to the village. Our presence creates a particular situation, conditioned by our identities as researchers foreign to the village and for one of us even to the country, purchasing an object and paying for a service. The subject, a blacksmith in his sixties, father, husband, older brother, grandfather, muezzin, shepherd, farmer, dealer, and veterinarian, is also subjectivised in this temporary relationship with these outsiders who come to film him. Furthermore, the ethnographic filming situation is both somewhat extraordinary, because we are filming his work in a single day (whereas he may make the beater over several days), and mundane for Mohammed. For our part, through the eye of the camera or while watching the film, we are captivated by his technical skills and expertise, the beauty of the tools used and made, the aesthetics of bodies in action, the red-hot iron and the glowing fire. We also think of the viewers with whom we share a cinematic imagination derived from Hollywood

cinema: the film magnifies bodies and technical gestures (Skvirsky 2020) in dangerous spaces that include hostile materials. Or we may be enchanted by the charisma and eros that O'Connor (2025) evokes in relation to glassblowers. We also wish to celebrate these expert craftsmen who are marginalised in local, national and global social hierarchies. And within a postcolonial and capitalist framework, our European perspective is undoubtedly coloured by the romantic - or, in this case, even orientalist - aura associated with craftsmanship and artistic expertise, and with the decline of craft skills.

In this network of actions, which we form with Mohammed, his assistant, his family and, potentially, the other blacksmiths in the village through the attention we pay to one of them, we are affecting local social relations. Our presence with cameras and a French woman gives Mohammed a certain status, or at least a distinction, in his relations with the other villagers. And this may be part of the reason why he is willing to play along. Our academic requests (to verbalise his work, to preserve his heritage) are at odds with his habits: our visits are concentrated into a single day and therefore require him to work quickly. Mohammed sees his actions as part of a contractual relationship of paid work in which he must deliver a finished object of the highest quality for posterity and for the film.

He creatively influences the filmic relationship, revealing a new dimension of his personality as a craftsman. He draws on the generative aspects of the VEI to construct a strategic image of himself. By manipulating elements of the interview dispositive and their affordances (his image, the filmmakers/researchers, the camera, the tazzut/taska, the research, his community, and the audience), he contributes to creating a technical dispositive for self-promotion. He presents himself as a representative of his village and region, an expert blacksmith but also a goldsmith who takes pain in decorating and finishing his works with art and care. He claims a place in the narrative of Morocco's national heritage. When choosing his answers, he probably has in mind the gaze of members of his community, but also the potential relationships he is creating with the wider audience of the film we will produce. Thus, his performance as a professional expert, which he executes in front of us, is also potentially aimed at an audience of buyers reachable on social media.

Finally, let us not forget that the camera can be an instrument of observation and surveillance of one another, contributing to the co-constitution of subjects through these social relationships, a work on oneself, where everyone temporarily accepts these constraints. Our intersubjective relationships are therefore a mixture of diverse expectations, economic strategies, social positions, future hopes, tensions and ambiguities.

Figure 7-8 *Mohammed enjoying his pedagogical role*. Photos by Marie-Pierre Julien, 2022.

To conclude on social relations surrounding the blacksmith profession in the Sirwa, we should add that Mohammed's sons, who attended secondary school, refused to continue in this thankless, difficult and little-recognised profession in contemporary Morocco. They are pursuing their professional ambitions in various Moroccan cities. One of them, in contact with representatives of the Ministry of Handicrafts in Casablanca, in a subordinate position (ethnic, racial, rural) in relation to them, sold them the beater forged by his grandfather and the 1980s carpet featured in the film, without realising their monetary value. Furthermore, we do not yet know what the consequences of the EMKP's intervention will be on the production of consumer desire in an internationally oriented heritage economy.

In conclusion

What can the socio-technical dispositives of filmed observation and video elicitation interview (VEI) bring to our understanding of the subjectivation of an expert blacksmith in southern Morocco? Video methods are well suited to the study of embodied motor skills, but we argue that they provide powerful ways of investigating subjectivation, both diachronically and synchronically. The video shooting dispositive, which involves filmed observation, in line with the tradition of Jean Rouch's filmic anthropology, is subjective, embodied and cognitive, and therefore inherently analytical. This analysis is grounded in the ethnographers' embodied, cognitive and social experiences, their specific anthropological subjectivities, and diverse identifications and histories. At the intersection of our objective scientific observation and subjective experiences in the smithy, our hypotheses regarding Mohammed's pre-reflexive as well as reflexive professional and cognitive habitus needed to be tested against the blacksmith's own verbal reflections. The VEI, because it fosters a higher engagement of our interlocutor, gave us insights into his ethical practices of the self within the governmentalities that organise the smithy. It revealed Mohammed's agency, his pleasure in engaging with this project, his pedagogical, analytical and communicative endeavour. It also gives us access to his vernacular conceptions of materials and non-humans. This socio-technical dispositive enabled Mohammed to control the narrative surrounding his expertise and his history, to build a more nuanced image of himself, or even to help create a self-

promotion strategy based on his expertise. This method is particularly suited to fostering the intersubjectivity and collaboration required between researchers and participants in order to co-construct scientific knowledge. Finally, by combining the VEI with long-term conventional field observation, we have shed light on the social relationships that govern the blacksmith's professional activity and subjectivation, within his village and beyond. In sum, this method enabled us to not reduce the study of Mohammed's subjectivation to professional skills and knowledge alone. Through a political approach to subjectivation that encompasses governmentalities and ethics, we were able to extend the potentialities of VEI to gain insight about power dynamics beyond the dispositive of the workplace/research.

But to what extent could the study of subjectivation enrich visual anthropology, or the anthropology of technology/technics, craftsmanship and knowledge? We argue that these branches of anthropology could benefit from an approach that explores subjectivities as processual, continuously negotiated, political, ethical, situated and historicised – hence the term 'subjectivation' – and as emerging from the socio-technical dispositive within which subjects operate. Thus, research dispositives, because they engage organisms-together-with-their-material cultures, subjectivise those being filmed and the filmmakers-researchers differently, leading them to think about and perform their work in distinct ways. This was shown by researchers who have been using video methods and the VEI since the 1990s (or even the 1960s in the case of Rouch and Dieterlen) to study (inter)subjectivities and identities in work practices, whether craft-based or not. Furthermore, beyond the research/workplace dispositive, visual methods when combined with other methods, open up the scope of study of power dynamics to encompass the wider context (local, national and global).

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