Making & Doing

Activating STS through Knowledge Expression and Travel

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A SHIFTING INCUBATION
From Exhibiting Academic Migration to Staging Interactions with Academic Refugees

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This results in the practice to test every artwork for its use by the apparatus, but never the apparatus for its use by the artwork.

—Brecht 2003, 14

In August 2005 Caritas Austria, an organization that runs shelters for asylum seekers, circulated the following letter on our behalf:

In case you have been working as a scientist before you became an asylum seeker in Austria, we would like to ask for your attention. Maybe you are interested to participate in the following exhibition project. In the course of the Austrian EU-Presidency next year we are planning an exhibition project called "x06—Visions / Versions of European Research" that will take place in Vienna in June 2006. It is sponsored by three Austrian ministries and organized by Science Communications. This exhibition project consists of about 12 different modules, concerning the relationship of "Science and Society", displayed in multi-media installations and presented in different places in the city of Vienna during the show. One of the modules we plan concerns the situation of scientists that became asylum seekers.

In the run-up to the exhibition x06, we plan a project of approximately 6 months where we will try to provide office space at Viennese Universities to up to 10 scientists who live in Vienna as asylum seekers. Since it is not possible to employ scientists on a regular basis, they are provided with access to an academic environment. During the exhibition x06, we want to display their experiences and work in an "Office for Scientific Flotsam and Jetsam" and organize events to discuss the situation of all participants in the public.[1]

When the exhibition opened a year later, there was very little to see. Instead, an ever-changing group of fifteen to twenty-five asylum seekers and refugees[2] with academic backgrounds were present themselves to interact with visitors, tell their stories, debate refugee politics, or simply chat. Why did we shift from the promise of exhibition to interaction? In this chapter we discuss the dynamics of what happened during the making of the exhibition in terms of what we call incubations. We describe incubations as a process that aims to "invent the social" under pressure,

as opposed to describing or criticizing it (Marres, Guggenheim, and Wilkie 2018). Incubations thus depend on methods to open up routinized procedures and situations. Such pressure, as we develop in this chapter, prompts the project to shift in fundamental and unforeseen ways. Notably, media and methods shift to the extent that the project moves away from recognizable and established STS methods and becomes radically performative and interactional. Following on our previous statement on the general logic of incubations (Guggenheim, Kräftner, and Kröll 2018), in this chapter we focus on the ability of incubations to encourage such shifts and the necessity to see them as a way to learn and expand the repertoire of what STS can be rather than to see them as a problem.

After expanding the notion of incubation, we describe the following shifts: First, the very focus of the exhibition shifted from migrants to refugees. Second, the space and location of the exhibition shifted from being mobile and at the periphery of Vienna to the center of the city, which created the preconditions for the subsequent shifts. Third, the originally intended methods of representation shifted from us interviewing the refugees to them interacting with exhibition visitors. Fourth, because of the shift toward interaction, the objects in the exhibition shifted from being documentary objects about the refugees to being provocations for interactions. Finally, our roles shifted from being curators and researchers to being managers and social workers.

The chapter is based on interviews with two participants in the project; our memories of the project; a large number of emails among ourselves; reports written for our clients as well as the exhibition catalog, which contains texts by the members of the Office for Scientific Flotsam and Jetsam (OSFJ); and an interview with the curators by the members. This is not a proper ethnography, because we lack the data to do this. Instead, we offer a post hoc reconstruction to explain the practical logic of these shifts as a specific kind of STS making & doing.

INCUBATIONS: INVENTING THE SOCIAL BY ENCOURAGING A PROJECT TO SHIFT

To begin with, let us clarify what we mean by incubations and how this relates to other ideas of making & doing STS. In a previous publication we defined an incubation as "a socio-technical device that uses situational, social and time-based pressure to invent the social and represent it with a wide variety of media" (Guggenheim, Kräftner, and Kröll 2018, 65–66). Let us stress here that this is an approach not only to represent the world but to consciously interfere in the world in order to make it anew, but without having a specific goal in mind of what this new sociality should look like. We have suggested that incubations need, first, suitable setups; second, some form of pressure to make situations malleable; and third, carefully designed products in adequate consumption contexts. In this chapter we trace the genealogies

and affinities of this approach and then highlight why interrelated shifts of media and methods are crucial.

Incubations follow the call by Law and Urry to "enact" the social, an acknowledgment that all existing "theories and methods are protocols for modes of questioning or interacting which also produce realities" (2004, 395). For Law and Urry, this meant being attentive to the performative effects of methods; it did not imply a call for different methods. Others contributed observations of the inventiveness (Lury and Wakeford 2011) and messiness of methods (Law 2004).

More narrowly, in STS, and specifically in studies of public engagement of science, such calls have been used to counter the idea that public engagement practices are fixed, an idea premised on a view of citizens as blank slates (Lezaun and Soneryd 2007) rather than being "emergent and produced—as sites in which both publics and their views on technology are . . . ultimately intertwined" (Selin et al. 2017, 636). "Experiments in participation" (Lezaun, Marres, and Tironi 2017) are a further step to understanding participation as a performative practice in which STS researchers may actively intervene.

One way of intervening has been to focus on actor positions and relationships as emergent. Doing so, as Teun Zuiderent-Jerak points out, implies that STS scholars "can intervene in controversies in ways that do something different than re-iterate actor-positions" (Zuiderent-Jerak 2016, 74). Adolfo Estalella and Tomás Sánchez Criado thus call for "experimental collaborations" to renegotiate actor positions (Estalella and Criado 2018).

Experiments in participation are linked to a focus on "material participation" (Marres 2012) or "material deliberation" (Davies et al. 2012). STS researchers with this focus are often understood as moving away from the seemingly restrictive and exclusionary medium of text and toward "multimodal reinventions" (Dattatreyan and Marrero-Guillamón 2019, 221). Projects have brought together artists and STS researchers (Calvert and Schyfter 2017; Sormani, Carbone, and Gisler 2018), and STS researchers have worked with methods and material practices from the arts (Hatzius and Wakeford 2015), design or "critical making" (Ratto, Wylie, and Jalbert 2014; see also Wilkie and Plummer-Fernandez 2015), and architecture (Calvillo González 2018). What these approaches share is that they use objects and devices purposefully to elicit, change, and provoke novel forms of the social.

These projects often start and end with particular media and particular devices. This can amount to a reversal of the usual logic of STS, in which devices replace texts as the a priori medium of an intervention. There may even be elaborate sequences of methods and devices designed to elicit specific versions of citizens (for an instructive example, see the table in Selin et al. 2017, 640). They tend to read the analytic point of STS that objects and technologies literally "build the social" as an instruction for action through designed devices (Calvillo González 2018, 41). Instead of observing the power of design to shape the social, they harness this power for the uses of STS. These

projects usually focus on a finished, clearly delineated object that sits at the center of practice and attracts and creates a public, such as bots (see Wilkie and Plummer-Fernandez 2015), or records the world, such as sensing devices (see Gabrys 2014).

Incubations follow more closely the original observation of Law and Urry of enacting the social as "modes of questioning" (Law and Urry 2004, 395)—that is, as an ongoing *practice*, a method and theory. Incubations, then, share assumptions of participative action research and participative design (Andersen et al. 2015; Binder et al. 2015; DiSalvo et al. 2011). However, participative design research usually begins with a normative position that takes certain end states (mostly broadly Marxist and socialist ideals) as goals and then devises methods to achieve those goals. Incubations however, do not start with such preconceived notions of a good society but, again, follow an experimental logic: "What it is to do good, what leads to a better life, is not given before the act. It has to be established along the way" (Mol 2008, 75).

To experimentalize notions of the good means to take seriously the ways in which methods and devices change how different versions of the social emerge. The goal, then, is not to deploy specific devices to create defined versions of the social but to explore new devices and methods to be able to explore new social formations. In incubations, new materials and methods are intentionally made to emerge together with and in conjunction with new formations of the social.

The project we discuss here is particularly suited for exploring how such an experimentalization of methods and media develops. In our project, a sequence of shifts led to new versions of researchers and new versions of refugees, along with the deployment of new objects and methods.

The focus on shifts highlights a crucial problem for STS researchers and identifies difficulties of doing incubations. STS is well versed in accounting for science in the making by not falling for post hoc rationalizations of actors. Yet projects of making & doing, such as those cited earlier, tend to produce well-elaborated points about how certain devices and objects that were developed by STS scholars contribute to ongoing theoretical concerns of STS, as if these devices were always designed to contribute to these concerns. This logic can be attributed to the fact that indeed many such projects were designed to contribute to specific STS concerns from the outset. It can also be attributed to the fact that such accounts, because they are autoethnographies, tend to streamline the development of a project to indicate such contributions.[3] We have done this ourselves for the same reasons (Guggenheim, Kräftner, and Kröll 2016, 2018). But here we attempt a reconstruction that pays attention to the sequential development of a project and its shifts. We advocate a particular method that allows for such shifts, and we attempt to understand what these shifts do to a particular project.

These shifts were possible only because of the way we set up the project and actively allowed them to happen. When John Law describes empirical research as a "mess" (Law 2004), he asks social research to allow for this mess. But incubations

go a step further by asking us to attend to this mess in what we call "appropriate" ways—that is, by allowing the logic of the project to destabilize STS methods and media so much that they are no longer recognizable as social research. To attend to the logic of a project prioritizes both the contextual circumstances and the internal dynamics of methods and devices over disciplinary logic (this has been discussed as transdisciplinarity in a different intellectual lineage (Gibbons and Nowotny 2001). Note that this is different from situating the project or incubations in general as art, exhibition, or design projects, which would safely displace them outside of STS: to allow for shifts such as those described in this chapter assumes that incubations can move between these disciplines while becoming neither of them.

From the viewpoint of an incubation, the problem is not to accept messiness and then describe it but to develop ecologies of methods and practices that allow projects to shift with the complexity of the world. Incubations ask us to allow methods and media to shift along with changes in a project, rather than simply to register mess. This also echoes the "ecological" stance that "it is not possible to properly understand any one collective of participation without understanding its relational interdependence with other participatory practices, technologies of participation, spaces of negotiation, and the cultural—political settings in which they become established" (Chilvers and Kearnes 2016, 52). But again, for an incubation, the task is to go one step further, to move from *understanding* this "relational interdependence" to turning the STS researchers and their devices and methods into active and experimental parts of it.

For us, writing these shifts is tricky because reconstructing the distribution of agency between various actors and actants throughout the project is difficult. This is, first, because we were busy doing the project rather than documenting it. From this limitation also follows that the goal here is not, as in a typical ethnography, to give equal voice to all participants but to elaborate the practice of incubation. Thus, the documentation necessarily overemphasizes our viewpoints and underplays those of other actors. Second, any memories and reconstructions have to contend with the danger of either implicating a false teleology and overemphasizing our powers or giving an equally false impression of drift and being at the mercy of constraints that were not of our making. The reconstruction reminds us of the dual logics of how engineers account for technology: If everything goes to plan, they attribute this to the superior logic of engineering. If something goes wrong, they insist on the "unruliness" of technology that escapes their powers (Wynne 1988, 148).

1. VISIBILITY THROUGH HETERONOMY: FROM MIGRANTS TO ASYLUM SEEKERS

In the first shift, the project moved from focusing on academic migrants in general to being more narrowly about asylum seekers. This shift may seem innocuous, but only because the shift happened *after* the overarching exhibition was accepted by the

contracting body could the project come into existence as the very unlikely incubation that it was. The shift allowed refugees to occupy a central square in Vienna where they could interact with the public, sponsored by and speaking in the name of a right-wing government. The project could produce a new formation of the social only because it was never planned to do so, neither by the contracting body nor by the project team.

How did we get license to work on a project with and about asylum seekers in the name of the Austrian state, which at the time was a coalition between the Catholic-conservative Austrian People's Party and the right-wing Alliance for the Future of Austria?

Although many interventionist STS projects start from a consciously chosen position outside hegemonic actors—and this is what we very often do ourselves—this was not the case here. Our beginning had a most unlikely starting point. When it was Austria's turn to take on the European Union presidency in 2006, a group of ministries[4] formed Innovative Austria and set up a competition to promote the Austrian innovation landscape through a program of public understanding of science.

Two of us (Kräftner and Kröll), together with Alexander Martos and Berthold Schütz from the research communication agency Science Communications, entered the competition with a two-part proposal (Guggenheim joined the project after the competition): first, and mainly, to communicate Austrian science to the public through a "long night of research,"[5] and second, to hold an exhibition.

For the competition entry, the exhibition concept was vague and did not contain any description of what would later become the modules. The reason we won the competition had less to do with the proposed exhibition than with the other, larger half of the project. It helped that we did not know what we wanted to do and that we could hide behind less "problematic" projects. We can only speculate, but if the sponsoring ministries had known the details of the exhibition, and specifically the module we describe here, they probably would not have awarded the competition to us.

 After we won the competition, we faced the fact that there was only a budget—approximately 1 million euros[6]—and a vague description, but no actual concept, no team, and no location.

Two important decisions shaped the exhibition, and they went hand in hand. First, in the initial concept paper, "Visions and Versions of European Research," we couched everything in politician-friendly terminology but pointed to the multiplicity and transnationality of viewpoints that we wanted to showcase. Second, we wrote that we would focus on topics that cross barriers between disciplines, professions, and stakeholders. The visions and versions became a sequence of ten modules, each a mini-exhibition that focused on one topic or controversy.[7]

Initially, for the module we describe here, we wanted to address the migration of academics across national borders through student exchange programs, fellowships, and visiting professorships. In the first of two proposals, we wrote, "'Brain Drain' supplies anonymous brains with faces and contrasts the motives of temporarily or

permanently emigrated researchers with images . . . about emigration . . . perpetuated by the media and science policy." We planned to combine this with a focus on "statistical migration." Neither of these proposals contained the term "asylum seeker," but both had a strong STS focus on the making of migrants through bureaucratic procedures and statistics, similar to current interests in STS (Dijstelbloem and Broeders 2015; Ruppert 2011). Similar projects underway in other European countries sought to bring migration—though not migration of academics—into public discussion.[8]

An accidental encounter with an academic asylum seeker in Vienna shifted our focus. Meeting him brought all the problems we would later encounter in our project to the fore: for him, being a professor was restricted to trying to reclaim a lost status rather than operational expertise, because these credentials could not be demonstrated in a radically different context. The tag "asylum seeker" silenced everything that made up his biography as an academic. We began to focus on giving a stage to this undiscussed migration of academics, thus shifting from the high end of academic migration to an invisible migration of academics. Shifting the topic toward refugees also moved the module away from a classical STS focus on the making of migration statistics, because academic refugees were invisible to and made invisible by the state.

At the beginning of the exhibition, we established an advisory board composed of senior academics, curators, and industry people. We presented a long list of modules to the ministries, and they urged us to abandon OSFJ. They thought the shift of topic undermined the very idea of how Austria wanted to represent itself to the EU. But we had negotiated with the ministries that the advisory board would decide on the selection of modules. The advisory board strongly supported the OSFJ module and the contracting ministries did not dare contradict the advisory board. Within its organizational context, the project could come into existence only because of its lack of definition at the beginning and was allowed to shift because of being protected by the advisory board. It was the radical lack of autonomy that allowed the project to gain the prominence that it eventually had. We could not have created the project were it not for having won the competition. Only because we decided to restrict our autonomy further through an advisory board could we defend the module against suspicious ministers. The pressure to abandon the project strengthened the belief that this module should occupy a central position within the overall exhibition and that it would give the other modules that centered on issues such as gene doping, peak oil, and environmental management a very different meaning.

2. THE SHIFTING OF THE SPACE: A LOCATORY FOR AN INTERVENTION

The second shift delineates how the project finds a physical location and, by finding a physical location in the center of the city, creates the conditions for putting face-to-face interactions at the center of the project.

A textual STS does not need to think about its spatial location. Texts are mobile and have no defined home; they encounter their readers wherever a copy of a text happens to be. The situatedness of STS is usually enacted in writing, describing a place for an unrooted medium. An exhibition, however, is located, and its spatial accessibility and local context is a fundamental feature of its situatedness. Unlike writing, whose dissemination is difficult to predict and control, situating an exhibition in public space is always a decision between integration (blending with the environment) and intervention (sticking out) that relates the exhibition to its specific locational context (Kwon 2004, 56–99). As a place of intervention, an exhibition is a "locatory," a "place where specific knowledge-claims can be made, which are not possible in other places" (Guggenheim 2012, 111). A locatory in this specific case, we add, is a place where new interactions can emerge and new identities are formed that would not be possible in other places.

Once we had settled on the concept of ten modules, the question was where to position them. Initially, before we had shifted to asylum seekers, we planned to locate a module at the airport of Vienna, where it would be met by migrants of all kinds. Restrictions at the airport made this unfeasible. A later memo speaks of "book-busses in the countryside, busses of public transport, a truck, mobile homes." The modules, then, would themselves become mobile, a form of flotsam themselves. Finally, killing off the idea of mobile modules, we decided to locate each module next to a different station of the underground line 1, which runs right through the center of the city.

This module needed to be in the center of the exhibition. The lack of a suitable and available preexisting space in the center of the city next to a stop of line 1 prompted us to settle on a shipping container. The relative mobility of a container would enable us to put it anywhere we wanted—and were allowed to—and it would allude to global transportation.[9]

Karlsplatz is the main underground interchange, where four of the five underground lines intersect. On the square sits the Charles Church and next to it the Technical University. We convinced city officials to allow us to place the container between them (see figure 3.1). The prominent location also meant that our container would be seen by thousands of people, including tourists visiting the church, students and academics working at the university, and random passersby and visitors in the square. The exhibition of all ten modules was held during six weeks in June–July, free to the public, and seen by some fifteen thousand people.

While we were shifting the location of the module, we were still thinking in relatively conventional ideas of a documentary exhibition. But the location created the conditions to move the module away from being a documentary to being a place of interaction. The choice of location became an intervention regarding *the location of refugees* in the city.

3.1   The container next to Charles Church; the Technical University is just outside of the frame to the right (the banner on top reads "Office for Scientific Flotsam and Jetsam").

3.   SHIFT: FROM ETHNOGRAPHY TO PERFORMATIVE INTERACTION

The third shift was the most crucial and most radical one. Setting up the OSFJ *created* a new social entity. But this entity did not have its own, suitable form of representation. Over time, our methods shifted from preproducing ethnographic materials to ultimately relying on live interactions in the exhibition. This move was primarily a shift of medium, from documentary media such as video interviews to face-to-face interactions. But it also established a different agency of the refugees. Importantly, this shift was only possible because of the previous shifts detailed earlier and because the project was set up as an exhibition.

Before assembling the group, we had planned to represent their biographies with qualitative interviews, possibly recorded on video. This would allow documenting their trajectory from academic to refugee. Academic refugees, like all refugees, are determined in public by their status as refugees.[10] They are forced to live together in refugee homes, despite their differences in class, age, ethnicity, religion, country of origin, language, and so on. Refugee status is pressed on them as the only publicly visible classification at the expense of all other classifications. The members of the OSFJ came from Sudan, Côte d'Ivoire, Chechnya, Ukraine, Georgia, Libya, Palestine,

Kyrgyzstan, Somalia, the Democratic Republic of the Congo, Afghanistan, Iraq, and Iran. Most did not speak German, and many did not speak any of the languages that we spoke (English, German, French, Spanish, Italian, Portuguese). They were doctors, engineers, agricultural scientists, social scientists, and linguists, among others.

How could we encourage and support them to represent themselves, through working as a group, when the only thing they shared was that they were forced to live in a refugee shelter and answered our call there? An important first step was to organize an actual office, in which they could work independently of us. We rented an unused café, around the corner from the exhibition team's offices. This was a first step to give the refugees space to develop their own projects outside the pressures of the incubation. It gave them a sense of purpose unrelated to the regular meetings we had. But it did not solve the problem of how to bring the group into the exhibition and how to turn their status into a matter of concern.

There was no shared object that could be externalized as an object of design and around which various audiences could be assembled, such as in the case of hybrid forums (Whatmore and Landström 2011). Work at the intersection of STS and design has highlighted the role of devices (Lezaun, Marres, and Tironi 2017; Wilkie and Plummer-Fernandez 2015) for the "collective articulation of issues" (Dantec and DiSalvo 2013; DiSalvo et al. 2011, 186). But such an externalized object did not exist. Rather, it was the members themselves who were the object of the exhibition, the matter of concern, and the personification of the issue at the same time. Expertise was located in personal experiences, similar to feminist health projects of the 1970s. But as the accounts of doing and writing such practices make clear, such work was highly skilled and developed over a very long period of collaborative research (Murphy 2012; Wells 2010).

We understood that some members of the OSFJ were reluctant to be interviewed—not least because being interviewed is related to the process of becoming a refugee. At this point, we shifted to the idea of them interviewing each other.

As Guggenheim put it, "I believe the interviews would be more interesting. Not: an ethnographer interviews a poor refugee, but rather an exchange of ideas and opinions. This would also make the camera less voyeuristic."[11] However, this simply compounded the confluence of person and issue and proved too ambitious, as already foreseen by Kröll in response: "There are inhibitions (communication among each other, technology, etc.). . . . There are also personal reasons (other than language and culture) why some do not talk to each other."[12] Interviews may have worked partly as a group-building exercise, but they did not work as material that could be used in an exhibition. Filming also brought the problem of anonymity to the fore. Some expressed their wish to be named, and others did not want to be.[13]

After a year of the members of the OSFJ working under precarious conditions, shuttling back and forth between a refugee shelter and our office, without even sharing a language, we learned that there was no straightforward method to produce

the materials we initially envisaged. The longer we worked on the project, the more representing the members became a chimera, something weird and distant and out of tune with the operations of the OSFJ. The more we worked together and the more complex the stories of the members became, the less able we were to represent these stories. Without producing data in any meaningful sense (we did not take any notes of these trials), the data took a life on their own, which increasingly did not fit any display format that we could collectively imagine. Yes, we could interview some of them and put long interview excerpts as texts on the walls. But how would this work as an *exhibition*? We finally decided to abandon any attempt at narrative representation.

How then to incubate a topic whose main actors were both researchers and researched, but without a single object or device around which they could form a collective and without any medium and method of representation that worked? How to include actors whose only shared definition is that they are excluded?

Very early, we thought about how to connect the modules and how to deepen their topics without resorting to explanatory text. We decided to work with what we called "module carers." These were project members who cared for each module during the running of the exhibition. Most were students in STS, the social sciences, or the arts. Each carer would be a mixture of museum attendant, technician, and exhibition guide. We trained them to know about each module's topic, so that they could interact with visitors as guides through the objects and controversies on display.

For the OSFJ, we realized, we could turn the members of the OSFJ themselves into their module carer. This would not only give them a visible position but also solve the problem of representation. Module caring could become a way for them to tell their story, to meet visitors interested in the module and to hang around with their peers and other module carers. As Paula,[14] a member of the OSFJ and a trained medical doctor, put it in an interview, "Because I am an asylum seeker nobody talks to me. No one knows who Paula is and what she does. She is just an asylum seeker with dark skin, who does not fit in. But there we were as people. . . . I am seen as someone who is *here*."

Turning the members into module carers also changed the role of the latter: instead of being someone who involves visitors in discussions about the works of others, the module carer herself became the exhibition. For the visitor, the visible distinctions among an absent narrator of the exhibition, the present exhibition guide, and the exhibition subject collapsed. This, in turn, challenged the narration of the exhibition, because any stable narration vanished. No one had control over the story that emerged from the module. The story depended on whoever was working as a module carer on any given day and that person's interactions with the visitors. The story would also change along with the changing experiences of the members as asylum seekers and how their interactions with the visitors played out. It also changed us as a collective. We curators became ever more insignificant as authors. Members

stopped being resources in the background and became devices to spur interactions. The module itself became the medium to change their existence. The exhibition did not turn them into an issue over which they had control; it made them literally move themselves and the issue into the center of the city, a shift that would not have been possible if this were not an exhibition.

4. SHIFT: FROM EXHIBITS TO PERFORMATIVE OBJECTS

The fourth shift builds on the third shift toward interaction. All modules depended on module carers to connect exhibition objects and visitors. However, in the OSFJ the carers would have a different relationship to the exhibits. The interaction between carers and the visitors would be the center, and any object would be at the periphery of this interaction. Thus, once interaction rather than representation became the purpose of the module, the role of objects within the module began to shift as well. Objects would not need to be equipped with the power to be self-explanatory or even intelligible without being part of an interaction. There would be no need for contextual information. Objects would become either infrastructure or triggers for interactions.

Our idea of an exhibition was based on an understanding that has emerged through working at the interstices of art and STS with various media and their "alien agency" (Salter 2015). The members of the OSFJ did not share these ideas about exhibitions. None of them had experience in this field, and many imagined exhibitions as visual art hung on walls. The shifts recounted in the previous section earlier were problems of representation and recording and relatively easy to understand for the members. After abandoning documentary materials, we still had a container, which needed to be somehow designed as an exhibition. Because we did not want to override them with a complex translation of their situation into an installation, we turned back to the most basic elements of their lives.

From the beginning, the BA, MA, and PhD certificates of the members occupied a special place in the project. Certificates are one of the few objects asylum seekers hold on to. More than money, they are promissory objects that preserve and transport status to a new place. But as soon as refugees arrive in Austria, they realize that these documents are devalued. Certificates of asylum seekers are ignored by state bureaucracies. Once granted asylum, their certificates are often not recognized. Even if they are, they are unlikely to be given much currency on the job market (for Austria, see Eggenhofer-Rehart et al. 2018; for an overview, see Martin et al. 2016).

As one member put it in an essay for the catalog: "At home [in Somalia] I worked for international and local organizations as University teacher, journalist and teacher of journalists. . . . . Despite my qualifications I could only work [in Austria], humiliated, as a builder." Documents endowed with all the signs of the state and all the technologies of making a document official suddenly lose their power in a world that seemingly is built around the power of precisely such acts of official certification.
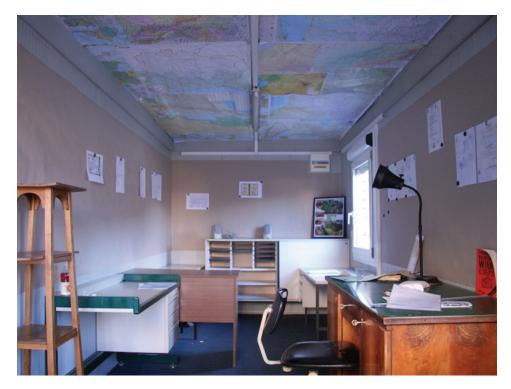
3.2 Cartoon by Vaheh Abram, a member of OSFJ.

The humiliation of having to work as a builder is compounded because academics are more than anyone else living with a *belief* that such certifications represent skills and knowledge that can be translated into jobs and money (see figure 3.2 for a cartoon referring to that topic by one of the members).[15]

This belief is reinforced by the design of certificates. Each of them is not merely a piece of paper conferring a qualification to a person through a text but an elaborately designed claim to official power, through the use of ornaments, fonts, seals, and signatures by important people.[16] We decided to exhibit copies of these certificates both to demonstrate how these performances of visual officialdom become worthless and to make them potential starting points for a discussion between module carers and visitors.

First, in a move that was echoed by Whatmore and Landström (2011), we decided to use objects to spur conversations. We asked our carers to bring in objects that they wanted to have in their office. These included a white doctor's coat, brought by a member to represent her inability to practice her profession,[17] and a Somali-to-German dictionary of medical terms that one of the members had compiled to help other refugees.

Second, we wanted to turn the office into an actual, usable office, not only to make a statement about the precarity of the working conditions in refugee camps for the members of the OSFJ, but also to allow them to use the exhibition as an actual

3.3   Inside the container.

office and meeting space.[18] Thus, we brought in secondhand office furniture that would allow people to sit and talk as well as work.

Finally, one of the members had the idea to include maps of their origin countries. We bought a map for each country and used it as wallpaper on the ceiling (see figure 3.3). The final effect was disconcerting: the room was a usable office that looked like an office in a building circa 1980, except for the maps on the ceiling and the copies of certificates. But it worked extremely well throughout the exhibition, precisely because it did not focus the attention of visitors on the visible but only provided starting points for discussion.

5.   SHIFT: FROM THE OSFJ TO RESEARCHERS WITHOUT BORDERS

Once we focused on refugees, our module also began to shift away from being solely an exhibition. Although the previous shifts can all be reconstructed post hoc as inventing the social as a form of representation, this final shift literally created a new social entity. The OSFJ became an independent formal organization that would connect refugees and academic organizations. But ironically, the new organization became a provider of a form of documentation that the project initially had set out to abandon.

As we became aware that involving the members in documenting their status and biographies might be both difficult and not what they might think was the most pressing issue, we considered how we could document their situation by changing it along the logic of the exhibition. Even if the certificates were worthless, the members still had skills. We decided to set up a kind of exchange and training scheme, in which we would pair refugees with relevant academic organizations. We thought we would document the workings of this training scheme in the exhibition. We quickly found a small number of professors who were willing to help and host people. But in the event, most members went not to universities but to para-academic organizations, hospitals, and companies. The mentoring program was mostly run by Kröll and included searching for a suitable place for each person. The incubation, and Kröll's job in particular, shifted from being an observer and curator to also being a manager, social worker, and lobbyist.

For bureaucratic reasons, this process proved to be incredibly slow. Because of the varied discipline, language, and professional skills of members, we had to look for tailor-made arrangements. No legal framework existed, and no existing organizational setup could be used for all of them. There were numerous bureaucratic obstacles, such as the problem that asylum seekers, who could not be employed, did not fit existing organizational categories and could not be insured. These problems delayed placements until after the opening of the exhibition and made documentation for the exhibition impossible, which exacerbated the documentation problems within the exhibition referred to in the previous shifts.

Attempting these placements also allowed the members of the OSFJ to emancipate themselves from our project. They did not need to identify with the complexities of the exhibition or the demands of a collective they did not choose to be part of. When we discussed the option of founding a new association in order to continue the visibility of the interests of asylum seekers with an academic background, some of the participants expressed a concern with representing themselves as "scientific jetsam and flotsam." Together, we finally agreed on the name Researchers without Borders for the new association.

The mentoring program could become permanent and independent of the pressing timelines of the exhibition. It also allowed us to set up a network of alumni of the OSFJ that would have the means to come together once their status had been regularized.

Eventually, we would write letters to the asylum authorities to bolster our members' claims to be integrated into Austrian society: "Since 2006 Miss X is a member of the association 'Researchers without Borders.' She has participated in various activities of the association including weekly German conversation groups. Miss X is an active member and contributes with her organizational and communication skills to various events." Being a member of an organization that was founded to compensate

for the active exclusion of asylum seekers by the authorities became proof of being an integrated asylum seeker.

Not documenting members' biographies and subsequently inventing new ways to interact with audiences for an exhibition led us to document members' lives in the most prosaic and bureaucratic ways for the authorities. This may be the most surprising aspect of the project, once we accept it not as disconnected but as part and parcel of a trajectory of an incubation. When we began the project, we thought that as STS scholars we would document the knowledge practices of how states make migration. The knowledge that we collectively gained about the situation of refugee academics did not become a theorization or documentation but was operational in a way that was both unforeseeable and surprising. It created a new kind of STS making and a new kind of academic refugee who documents herself by being herself in public. By being herself in public demonstrates the right to become a citizen.

CONCLUSION

To conclude, we would like to highlight a few points that allow us to situate an incubation as a form of STS making & doing and why it is so unlikely and difficult to make it happen. As pointed out before, all shifts are connected to each other. For narrative convenience, we have separated these shifts. But the development of the project meant that changes of the topic led to changes of the location. This in turn led to changes of how the group understood itself and to changes of our role and of the media and methods used.

First, the incubation depended on the organizational possibility that these shifts could happen at all. The incubation needed funding that would allow us to make these shifts. Under normal funding rules for research projects, it would be impossible to begin without knowing what the project would be and then to continue to radically change the project along the way. It is even harder to imagine research funding made on a promise to do research, only to abandon that research in order to allow asylum seekers to interact with the audiences and to start building a nongovernmental organization.

Second, the incubation implies that we as curators would be able to do these shifts. We needed to have the time and the institutional freedom to do so, without the fear that we would be lost without proper training or disciplinary guidance. We could do this only because we were not accountable to university departments or funders that would demand an academic contribution to a field.

Third, we needed the skills to make these shifts or, at least, the lack of fear that we did not have these skills. *STS* making & doing sits here in tension with establishing STS as a distinct *academic* discipline (even in its activist versions), which is based on a set of teachable methods, and the affordances of incubations. Incubations are demanding precisely because such definable skills are needed, but another

set of different skills that are *unknown* at the start of the incubation are needed as well.

Finally, there is a performative irony underlying this chapter: it seeks to contribute to STS making & doing by moving away from the making and doing itself and accounting for it in a medium that was abandoned in the making & doing of the project we report on here. The logic of an incubation, as we have detailed previously, asks the project to allow for radical shifts to find a form and medium that suits the project. In this report, this logic is inverted and the project is forced to leave the form and medium that suited it, to conform to the logic of written STS. The report itself is temporally, spatially, and in its form far removed from the project. It also differs from the exhibition catalog, which contains articles by the members of the OSFJ, including their interview of the curators (Guggenheim et al. 2006). In this chapter, only the curators report on the project. This is so because the other members of the OSFJ have dispersed, do not have time, and most importantly, have neither an interest in nor the skills to contribute to STS discourses. It is not an oversight or a lack of collaboration or participation that they are only spoken about here. It is a direct outcome of the media infrastructures of STS that the project shifted away from. The radical difference between making & doing STS and accounting for making & doing in an STS idiom, however, should not lead us to try to render the making & doing itself more like the accounting for it. Quite the opposite; to create good incubations means to let them shift as far away from STS and its media infrastructures as needed and feel confident that the accounting for it is a second, separate act.

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NOTES

1. The text was written in English. It is reproduced here without correcting any grammatical errors. Other sources cited are translated from German to English by the authors.

2. We distinguish between "asylum seekers," or those who are applying for refugee status, and "refugees," or those who have been given refugee status by Austrian law. This difference has important consequences in Austrian law for access to financial support, housing, and the right to work. In the United Nations definition, "refugee" includes both groups.

3. But see Calvert and Schyfter (2017), Michael (2012), and Sormani, Carbone, and Gisler (2018) for actual ethnographies.

4. These were the Council for Research and Technology Development; the Ministry for Education, Science and Culture; the Ministry for Transport, Innovation and Technology; and the Ministry for Economy and Work.

5. Long nights of literature, art, poetry, or research are an established popularization format in European countries to showcase cultural production throughout a single night. In the Long Night of Research, universities and private laboratories in Austria and Germany open their doors to the public and showcase their research.

6. To the uninitiated reader in a university, this may look like a lot of money for a two-year project. But we had to pay for everything, including rent for our offices and exhibition spaces and ultimately for around seventy people—curators, project members, project managers, location managers, exhibition guides, and security—and all exhibition materials and printing.

7. The other modules were (1) International park: research at the edge; (2) Caring for body and soul/vegetative state: What is a body/a person?; (3) Stained perception: Is there life on Mars?; (4) Who with whom? Inheritance in action; (5) I've got something: Allergy playground; (6) Gene doping: A difference that makes a difference; (8) Peer reviews: The scrutiny of scientists' performance; (9) SPeak Oil: The end of petrol, or the refined soul; and (10) Self-Service: Luncheonette for advice and other experiments.

8. For a recent overview, see Berlinghoff, Rass, and Ulz (2017).

9. In hindsight, the choice of the container was too predictable. Containers have worn thin as symbols for globalization. Our container also referred to a previous project with asylum seekers in Vienna. In 2000, as a protest against the right-wing Freedom Party of Austria, the German artist Christoph Schlingensief created "Please Love Austria." He set up a container with a banner that read "foreigners out." In an imitation of the TV series *Big Brother*, a group of asylum seekers lived in the container and the audience could vote on who to deport next (Bishop 2012, 280–283).

10. The situation of the people we worked with was also notably different from the far better-researched situation of famous refugee scholars such as those who fled from the Nazis (Bentwich 2012; Coser 1984; Fleck 2007) or those who fled communist states during the Cold War. Many of these scholars had preexisting international networks to help them and could *comparatively* easily continue their work in other countries. Very often, powerful organizations helped them establish themselves as academics (Tournès and Scott-Smith 2017). Academic literature focuses on such cases in part because they allow discussion of the exchange of important intellectuals and researchers, rather than stories of "irrelevant" academics who would never feature as subjects of history of science and technology (Abramson and Dolunay 2017). Further, it is much easier for refugees who flee to countries with which they share a language and, usually because of a history of colonial dependency, a history of academia (for the case of Algeria, see Leperlier 2018; for a historical comparison of such cases, see Pries 2017).

11. Email correspondence from Michael Guggenheim to Judith Kröll, February 22, 2006.

12. Email correspondence from Judith Kröll to Michael Guggenheim, February 22, 2006.

13. Email correspondence from Michael Guggenheim to Judith Kröll, and from Judith Kröll to Michael Guggenheim, March 27, 2006.

14. All members of the OSFJ are given pseudonyms.

15. Here is a problematic aspect of the project: By stressing the humiliation through the loss of the power of certificates, we also buy into the power that these certificates have. We could ultimately be seen as endorsing the fact that other asylum seekers, who do not hold certificates, deserve to be ignored by the local job market. Obviously, this is not a position that we condone. We thought that we could accept this risk, given that the whole exhibition was focused on science and not on migration and the labor market.

16. For a study of how design builds authority, see Deville (2015, chap. 5).

17. This anticipated the recent trend of artists to exhibit leftovers of refugees—for example, Thomas Kilpper and Massimo Ricciardo's project "Inventories of Escape" (2015–2017) or Ai Weiwei's

"Laundromat" (2016). But these projects are ultimately voyeuristic and sensationalist because they divorce the objects from the refugees and leave the latter absent and voiceless.

18. We lost the room we had rented before the exhibition opened.

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