Interactive documentaries

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INTERACTIVE DOCUMENTARIES

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Introduction

This chapter introduces interactive documentaries (also known as i-docs) in digital and audiovisual anthropology. Interactive documentaries allow an audience to actively engage with an interface in order to experience the content. For example, opening Miranda Dahlin's *Exiliados: Mexican Asylum in El Paso* (Dahlin 2020), one lands on the home-page of the web-documentary. Let me describe my navigation experience.

I see a river landscape while a soundscape plays in the background. A button invites me to follow the story. I click on it, and the next image is a video of the USA–Mexico border highway. I hear what the road sounds and looks like, then text appears on the screen. It tells of the militarisation of Mexico during the US-backed War on Drugs. When I click on "next," three drawings of people appear over the landscape photo of a canal. By clicking on any of the drawings, I can access new pages that tell the stories of these people. In the space of three clicks, I have engaged with a photo, a sound recording, a video, a text and three drawings. There is no fixed order in which I have to access the content. I can click on the images or go back to previous pages according to my interest. In the new page, lines of text simulate a conversation with the people in the photo. If I click on a question, a sound recording provides the answer. As I interact with the clickable interface, I learn more about the War on Drugs' violent effects on both sides of the border.

Just as drawing, photographing and filming help ethnographers develop ways of seeing the world that are affected by these techniques (Grasseni 2007; Berger 1972), interactive documentaries explore a novel type of vision (Weidle 2019), and offer new affordances to ethnography (Favero 2013). Grasseni and Walter (2014) note how multilinear, multimodal systems of annotations, display, storage and sharing provide novel challenges to the understanding of visual engagements and

their epistemological grounding. *Interactivity* and *immersion* in documentary allow for new ways of seeing, reframing the role of the audience. In anthropology, from the Writing Turn of the 1980s, through observational filmmaking, to interactive documentaries, the co-production of meaning has characterised discussions on the ways anthropological knowledge is produced. I look at how interactivity in new media differs from the types of engagement written and linear media foster, and how it structurally affects the production of new media.[1]

Interactive documentaries offer different perspectives and create space for multiple accounts of reality. They allow us to reconsider the way ethnographers can address and represent entangled social relations. Multilinear narratives allow the user to choose their own pace and path through many different perspectives. Multivocal narratives disengage from a linear narrative predicated on single ways to connect events and people. Rather, in multilinear narratives, people and events are linked through multiple relations that the user can explore. Documentary scenes do not acquire meaning from their position in the sequence of the film, but they stand by themselves and show different aspects of people's life, which can be combined by the users. These relations become the focus of interactive documentary-making, as users need to learn to interact with media through these links. Following different examples of multilinear interactive documentaries, I look at how different roles for the users can be drawn into diverse styles of interaction, and how these roles affect diverse ideas of agency.

Subsequently, I consider how interactive documentaries can create novel explorations and interpretations of space and places. By looking at technology of Expanded Realty (XR) I consider different types of interactive spatial representations that can enrich documentaries, but that also present new ethical and production challenges. On the one hand, immersive explorations of faraway places can bring the user into the middle of actions and environments. On the other hand, the interactive representations of certain places can bring to life new offline and online interactions between people interested in those places.

Interactivity and immersion

What does 'interactivity' mean? Interactive documentaries emerge from the hypertextual affordances of new media (hypertextual links allow users to move from one document to another in digital media) and their experimentations in visual ethnography storytelling. The result is a mix of different perspectives and different possible interactions.

At first glance, interactive documentaries are a vast collection of new media. *Elderscapes* (Mayer et al. 2016) is a web-documentary allowing the user to click and choose the story they want to discover among a selection of inputs. Every link brings up new paths to follow, each describing an aspect of being elderly in India. *Awavena* (Wallworth 2018) is a documentary that users play via VR sets, to immerse themselves in a 360° exploration of an Amazonian village, following the initiation of Hushashu, the first female shaman of the Yawanawá. The film allows

the user to look in every direction to contemplate the environment constitutive of Hushashu's shaman training. The 360° view of the forest works well to represent the shaman's holistic approach to the environment. *Pirate Fishing* (Ruhfus 2012) involves a first-person game that familiarises users with the issue of fish stealing in Sierra Leone. One has to watch for clues in a simulated international investigation. *Augmented[archive]* (Behkalam 2011) is an open-ended footage archive, which users collaborate to create. From web documentaries to VR headsets, installations and algorithms, interactive documentaries offer a disparate set of devices and mediations that often have little in common.

Interactivity can require little effort – such as scrolling a webpage with a mouse – or it can need a more systematic engagement – for example, moving through a river map or clicking on specific GIS-referenced points. Rodrick Coover's work offers both examples. An example of the former is *A Harvest in Burgundy* (Coover 1999), a collection of photos of a wine harvest in Burgundy. Four lines of information run parallel on the website. By scrolling horizontally, the images and text change. The user can keep on scrolling or stop to contemplate the images, in an ethnographic and philosophic reflection. Coover's *The Chemical Map* (Coover 2013) is a GIS project recorded in the Delaware River Estuary. The map details the presence of heavy pollution across the river while also providing information about contamination and Coover's personal sensory fieldwork experience. Coover (2011) finds in the digital format the possibility for mixing different modes of experience and representation. Seemingly opposite modes of visual engagements – such as continuity filming and montage editing – coexist in interactive documentaries through digital poetics that layer, link and juxtapose media together.

This blurring of boundaries extends to the role of the user (Coover 2011, 200), since the active engagement of users in unravelling the documentary content is a constant feature in digital documentaries. Definitions of interactive documentaries revolve around the role of interactivity in new types of storytelling, wherein the user takes a more active role. For Galloway et al., a documentary is interactive if interactivity is at the "core part of its delivery mechanism" (2007, 330). For Aston and Gaudenzi, interactivity "is seen as a means through which the viewer is positioned within the artefact itself, demanding him, or her, to play an active role in the negotiation of the of the 'reality' being conveyed through the i-doc" (2012, 126).

In the interactive documentary, the user's interaction helps them to dive into the experience. In her seminal piece, Janet Murray lists interactivity among the new affordances of digital media. On the one hand, the user can *interact* and have *agency* within a complex system that reacts to her inputs; and, on the other hand, the user can also *immerse* herself within the spatial representation of the digitally generated environments (Murray 2017). Interactivity and immersion are mutually reinforcing: "When we are immersed in a consistent environment, we are motivated to initiate actions that lead to the feeling of agency, which in turn deepens our sense of immersion" (Murray 2017, 216).[2]

New media are embedded in the tradition of experimental forms of storytelling (Murray 2017; Manovich 2002). Murray notes how interaction sits on a continuum

of storytelling experiments with narrative and experiential features that developed across media. Involvement is fundamental to anthropological knowledge. From the very start, ethnographic writing requires an effort of mind-travelling in order to "[i]magine yourself suddenly set down surrounded by all your gear, alone on a tropical beach close to a native village, while the launch or dinghy which has brought you sails away out of sight" (Malinowski 2002, 32), relating to the cultural and social intricacies of somebody other than oneself. Ethnographic writing bridged the experiences of anthropologists and audience, asking the latter to engage with cultural processes they had to actively try to understand without having been there. Anthropology's *writing turn* in the 1980s also made apparent the importance of the role of the reader in critiquing the anthropologist's work. If anthropologists were key in crafting and authoring the realities they wrote up in their ethnographies, the reader, in turn, had to test them, getting involved in the webs of meaning-making and interpretation (Clifford and Marcus 1986).

Similarly, in visual anthropology the role of the audience has always been central. David MacDougall identified the principal characteristic of ethnographic filmmaking in intercultural mediation (MacDougall 1969). The film stands in an interpretative space wherein the audience, the film's subjects and the filmmaker participate to create meaning (Chiozzi 1990). Following MacDougall, Lucien Taylor also indicates that the very stance required in bridging the epistemological gap between the audience and the film's subjects creates the basis for an active participation of the audience in making visual ethnography (Taylor 1996). For Taylor there is nothing passive in engaging with the images represented on the screen, garnering significance from them or even just losing oneself into the image. The hermeneutic experience of vision already requires an "interaction" between ethnographer, audience and the subjects or subject matter of the film. In new media, documentary interaction is not taken for granted but highlighted to the user.

How is the type of involvement required in reading a book different, then, from that of conversing with the input provided by computational media? The standardisation of hermeneutic and perceptual interactive practices becomes the prime novelty of how new media work. As Lev Manovich points out, it is the "objectification" of the interaction that catches the audience's attention in new media: "Mental processes of reflection, problem solving, recall and association are externalized, equated with following a link, moving to a new page, choosing a new image, or a new scene" (2002, 74). Once they are externalised these links allow the user to create new and different connections. For example, in Dahlin's *Exiliados* documentary mentioned at the outset, in order to establish a relation to the narration I had to click a button. For Grasseni and Walter, this consolidation of interaction "[opens] up an epistemic space in which links and sequences become thinkable and manageable conceptually" (Grasseni and Walter 2014, 3), and once they become the focus of attention they generate new types of engagement.

Peter Biella (2020) considers how early works of interactive media in anthropology aimed to create active participation both in the delivery of the documentary but also in the interpretation of the images. Alan's Macfarlane's *The Nagas:*

Hill peoples of Northeast India (1985–2001), Brenda Farnell's *Wiyuta: Assiniboine Storytelling with Signs* (1995) and Biella's own *Yanomamö Interactive* (Biella et al. 1997), an interactive rendition of Tim Asch and Napoleon Chagnon's *The Ax Fight*, were CD-ROMs that allowed the user to click on images and play videos from a database of media. These projects invited the user to independently research media as data – reflecting on ethnographic moments to create new knowledge about them.

Sandra Gaudenzi (Aston and Gaudenzi 2012) individuates different modes of interaction to understand the different structures that shape the participation and involvement of the audience. According to the degree of interactivity or immersion, an *experiential mode* involves a mixture of online and offline stimuli allowing one to explore the user's environment; a *conversational mode* implies the ability of both user and interface to respond to each other's input, as in a conversation; a *participative mode* builds on the Web 2.0, sharing and feeding back to add elements to the documentary; and a *hypertext mode* follows the hyperlink logic of clicking pre-existing options to navigate media archives.

Since documentary filmmaking has always responded to ideas of representation and reality (Nichols 2017; Suhr and Willerslev 2012; Favero 2013; Schneider and Pasqualino 2014), interactive affordances advance new ways by which the "real" is negotiated:

> While experiential i–docs can add layers to the felt perception of reality, to create an embodied experience for the participants, conversational i–docs can use 3D worlds to recreate scenarios, therefore playing with options of reality. Participative i–docs allow people to have a voice and to participate in the construction of reality, while hypertext i–docs can construct multiple pathways through a set 'reality' to provide a range of perspectives on a common set of themes or issues.
>
> (Aston and Gaudenzi 2012, 128)

In ethnography, new affordances can help us understand our relationship with the field and our research participants. To record and voice different perspectives, ethnographers might try to understand exactly how these differences take shape and what they sound like; restructuring social rules to reconstruct simulations and scenarios, the anthropologist might investigate whether people, in fact, abide by those rules, or renegotiate them. Reflections on user's participation in filming and composing might thus shed light on one's own participant observation.

Interaction

I consider now those documentaries wherein interaction creates a visible contract between the documentarist and the audience. Multilinear narratives and open media repositories involve the user in the decision of what gets displayed in the documentary. These documentaries rely on co-production – collaborations at the level of production and at the level of fruition. Jay Ruby finds that "cooperative ventures

turn into collaborations when filmmakers and subjects mutually determine the content and shape of the film" (Ruby 2000, 208), but interactive documentaries can problematise this collaboration further. These types of documentaries can expand the possibilities to enrich participation in the field, making and collecting media with one's interlocutors. They can also allow multiple interpretations and narrative paths in the interaction with the interface. The inclusive capabilities of new media allow collaborations at the level of production, collecting all sort of media that can be stored together in either media databases or curated archives. The co-production of meaning-making lies in the audience's open possibilities to choose their own path and create new relations between the images displayed. As some documentaries allow for feedback and user collaboration, these two types of collaboration can sometimes blur: people in the field get to use the documentary interface, while other users can leave a comment or participate in providing new media for the documentary.

In what follows I will consider in detail some characteristics of interactivity, as they arise between the documentarist, the field interlocutors and the audience.

Multilinear narratives

Some interactive documentaries enable multiple ethnographic narrations. Users have to decide for themselves in which order to watch the documentary's content. The stories they weave are multilinear – namely, they do not follow a constrained[3] linear plot with a beginning, a middle and an end. Multilinear narratives allow the ethnographer to show how ethnographic knowledge is made. On the one hand, the user can explore relations among characters without the leading narrative that an ethnographer would give. However, the presence of the anthropologist in the field is still what weaves these stories together. Users can then trace the work of the ethnographer in these relations as both standing by themselves and being related.

In order to organise these stories, the strategies one follows to write, think, shoot and cut are different. This is why Aston and Gaudenzi (2012) caution against defining interactive documentary only in relation to its *delivery mechanism* (Galloway et al. 2007). Interaction brings about substantial changes in the very production of documentary, from media collection to editing. If interactive documentary links media and audience through interactions, the documentarists have to think carefully about how to make and weave these media together.

Learning new media and visual practice – such as working with new software, planning the shots and relying on specific hardware for playback – is then the result of constant attention to the development of interactions as part of documentary-making. Part of the task is to understand how to make the interactions work and what they come to represent. Franziska Weidle argues that "the linear process of researching-shooting – editing – screening […] shifted into an iterative back and forth between the field and screen" (Weidle 2019, 21).[4] She needed to develop a different methodology to engage with her new editing style. She learnt how to see and think different and coexisting connections between the elements in the field (2019). Going against linear media conventions implies a recalibration of the processes through which we

both see and envision our field. Multiple ethnographic narrations emerge from the process of thinking and editing without ordering media in a singular account.

By seeing these elements differently, the ethnographer can explore new ways for images and shots to stand on their own. For example, the filmmaker can think how her footage can relate to a photo, or to a text – rather than just to another video – and use the software to investigate novel meanings. This results in new trains of thought that can illuminate novel aspects of the encounters made during fieldwork. Juxtaposition might bring to the fore relations that were latent but that become more workable through their digital rendition.

Making space for the complexity of ways that relations are computed and put together, interactive documentary moves away from the audiovisual "thickness" of the linear documentary – the convention of meaning-making that characterises the editing of linear narratives. Instead, the software homes the filmmaker's focus in on what she calls the *dynamic density of relations* (Weidle 2019, 19), where meaning-making processes incorporate both the affordances of the software and the complex openness of social relations.[5] In order to act on this process, one can rethink the entanglements of relations and take them apart in their constitutive elements, each represented by multiple discrete elements in any possible media. For instance, in *Tajen Interactive* (Lemelson and Young 2017), a documentary about cockfighting in Bali, videos and text about a single event are divided into different sections. Each section in turn offers multiple options, which can be clicked according to interest. For Paolo Favero (2017) this operation helps ethnographic exploration. Not relegated to the linear storytelling of the film – and of the monograph – the collection of discrete and less authorial looks at the field helps the emergence of the sensual "thin" experiences – sensory or marginal elements that the ethnographer would usually relegate to fieldnotes or to memory. With the division of the interactive documentary into discrete media units, these "thin" experiences can be freely incorporated.

As interactive models can generate possibly infinite combinations – often based on the computational architecture of the hypertext – navigating platforms afford ever-novel connections that foster theoretical discussions about agency and authorship. Navigation enables meaning to be woven in the "in between" – between nodes, between platform and user, between author and code – by making things matter together (Miles 2017). By moving through the documentary, users are trained in this dynamic. The author and the user co-produce narrative in the multiple interactions that the author and the software lay out for the user to engage with. This training affects more than just how to move through a platform. In an interview, Florian Thalhofer, the inventor of multilinear editing software Korsakow, explains how this training mirrors people's experience of society, and allows them to reflect on society:

> Humans are developing increasingly complex societies, and this is only possible with better and better skills to understand multiple perspectives. Korsakow is a tool that trains those skills. I am convinced that Korsakow is a tool that trains the skills that are needed to imagine an advanced reality.
>
> (Thalhofer et al. 2018, 109)

These interactions are distributed through nodes. As Adrian Miles points out (2017), relations emerge in the choreography between the nodes of content and the possible lines between them.[6] Navigating through these nodes, users can weave new stories and author new meaningful connections. By virtue of interacting anew with these nodes, users juxtapose elements of the documentaries, finding new semantic connections through those juxtapositions. This agency over narration can engender previously unimaginable relations, both for the ethnographer and for the user. It can also help the user follow her personal inclinations in lending her attention to voices in the documentary. In multilinear documentary, the possibility of enhancing the presence of multiple points of view allows multiple threads to form novel relations and allows users to follow stories that – depending on the interactive documentary – can get to unprecedented length.

However, multilinear navigation can also offer a different approach to authorship over relation. Aston and Odorico take up Bakhtin's idea of polyphony to describe the narrative based on multiple consciousness threads that enrich rather than absorb each other (Aston and Odorico 2018, 1). The active role of the user, and the central role of the documentary infrastructure, questions also the user's positionality and her relation to the voices she accesses. Polyvocal narrations can allow the user to prioritise her experience in making connections in exploring stories. The user adds her perspective to the documentary by following her own motivations in directing the story.

By establishing an authored and fixed – although numerous – set of possible interactions, the ethnographer can guide the audience in tracing the relations between social actors. In turn, to effectively replicate these social dynamics, attention to the interactive affordances of multilinearity can prompt the ethnographer to thoroughly investigate how social complexity is in place in the field. In doing so, the ethnographer learns about the ways that ethnographic knowledge is the result of constant entwinements in the first place. Multilinear paths reflect the slow process of establishing and learning how to navigate social relations while also studying them. Anthropological insight and ethnographic images are the result of a constant mutual interaction between the ethnographer and the research participants – an interaction that allows one to understand how each person contributes with their partial and situated knowledge (Haraway 1988).

Kate Nash indicates that looking at the ways in which interaction allows one to position oneself vis-à-vis what the documentary depicts constitutes the discursive dimension of documentary interactivity (Nash 2014). She is interested in the kind of relationship that interactivity establishes between the argument of the documentary and the audience's actions (Nash 2014, 58). Simulations of point of view can contribute to the discourse about reality that the documentary wants to make, by training the user in the kind of choices that the protagonist of the documentary has to make. For instance, Nash considers how in the documentary *Asylum: Exit Australia* (Verheggen 2011), the choices that the user makes enact the reality of refugees' choices when they escape from their countries. Interactive choices represent ways to reflect on the complex situations the documentary presents to the user.

Reflecting how different discourses can inform interactions, one can also interrogate how interaction works in documentary. Sectors such as marketing, entertainment and healthcare have increasingly used contests, scores and reward levels to build user engagement and loyalty. This process is commonly known as *gamification*. The meaning of this term shifted from game design to the use of game mechanics in politics, business and in marketing (McCormick 2013). As Ian Bogost (2011) points out, *gamification* is a rhetoric that invests the least-complex characteristics of game design – such as levels and score boards – with the potential of ludic engagement. This level of involvement does little to shift users' perspectives over the issues at stake here.

Proponents of different theories about the role of games in developing critical thinking (Michael and Chen 2006; Bogost 2007) focus instead on digital affordances, which rely on "the uncertainty of complex systems instead of embracing simple answers" (Bogost 2011). For example, role-play and computational simulations about global climate change offer more complex and deeper involvements in issues of environmental sustainability and political action by confronting the user with embedded dilemmas (Fleischmann 2020).

For fieldwork, interactive documentaries do offer a way to train oneself into the serendipitously positioned encounters that dot the field. By navigating the documentary, users might reproduce these moments, as research participants introduce the ethnographer to new contacts. This is important to understand how fieldwork works. People depicted in the documentaries become key in creating paths through the platform. They are not just a repository of knowledge, they will also influence the subsequent content creation and interactions to mirror the experience of the field. For the user, access to documentaries changes according to the user's progress and exploration choices in unravelling the stories the documentary features.

Rather than positioning the user outside of the process that takes place in the media – with the liberty of creating free database associations (Grasseni 2014; Miles 2014) – these documentaries represent simulations of epistemic creation that centre on the informed decision-making that people in the documentary have to make. An example of such a documentary is *Journey to the End of Coal* by Honkytonk Films (Bollendorff and Ségrétin 2008). The user follows the paths of a journalist investigating the lives of coal miners in China. The user watches clips and photos alternate on the screen while a soundtrack plays in the background. By deciding which way to continue, the user reads texts that reproduce the conversations the journalist had during her journey and decides which path to follow accordingly to what triggers their attention or what they feel it is sensible to do.

This type of interaction brings the responsibility of choice to the audience in a specific way. The audience must take decisions embedded in a reproduction of the investigative journalist practice. The user has to impersonate the journalist well to see the documentary unfold. If the choices the user takes represent reckless or bold behaviour for the journalist, she inevitably ends up meeting the local political representative who invites her to promptly leave the region. Decisions have epistemological consequences and train the audience into a specific kind of

interaction that is generative of field reality. The documentary does not reproduce unmediated access to film- and image-making, but shows the difficulties that accessing knowledge – either visual or verbal – presents in the first place.

This example represents some of the individual choices the researcher makes in order to access the field. However, another possibility might focus on how to depict the process of choice-making itself. An interesting example is Maple Rasza and Milton Guillén's *The Maribor Uprisings* (Guillén and Razsa 2017). Rasza and Guillén aim to document decision-making and demonstrations in their documentary. In *The Maribor Uprisings*, the interaction that is at the core of the exploration mirrors the way people make choices while they are in larger groups. As such, the documentary problematises the concept of the "user." Shown only to groups, the interactive documentary is played to and by a group of people that has to decide collectively which path to follow. As a common choice has to emerge; people in the audience cannot select their own single documentary path without consulting with the other members of the audience.

The documentary shows the protests that followed the increasingly draconian rule of the municipal enforcement in the city of Maribor. After the documentary introduces the audience to the background to the protests, the images of the protest start. The audience is asked to choose where to stand in the protest: are they going to stay at the margins with the more peaceful protesters, or are they going to head into the thick of it? A choice is taken after the audience has discussed their preferences for each step of the documentary. Since the screening is not going to be held twice for the same collective, each decision forces them down the chosen path, with no possibility for rectification. Choices mark the path and the experience, making interaction a statement about political participation through choice-making. The documentary interaction challenges the audience to think in terms of their participation at the demonstration, but also about the processes of collective decision-making that characterise direct action.

The documentary prompts the audience to make choices that preclude the narrative from going different ways. The audience has to stick with their decisions and see them through to the end, with few possibilities of changing the path they set in motion – similarly to how the protesters depicted in the documentary had to face the legal consequences of their demonstration.[7]

To make an interactive documentary with stable paths that do not repeat themselves requires planning. In multilinear documentaries such as *Journey to the End of Coal*, paths can be designed and programmed after filming and photo-gathering is done. *The Maribor Uprisings*, however, presents a different approach to filmmaking, since the documentary focusses on one protest from multiple and partial perspectives, making the film require a collective effort too. The documentary required the collaboration of multiple cameramen and the attentive collection of found footage from sources other than the filmmakers themselves. While the final design was concluded only after shooting and image-gathering, careful planning and constant communication allowed the filmmaker to anticipate how the demonstration might evolve and how to film it.

Openness

Participative practice also introduces the open-ended aspect of interactive documentaries. Drawing on the affordances of a dialogic internet, new media help spread media-production and media-sharing among multiple actors, creating participatory media archives. The collective aspect of documentary-making thus also becomes a participative production. The multiple points of view that interactive documentaries can embed also prompt ethnographers to consider the co-production of their research and the involvement of their research participants.

To this effect, Sandra Gaudenzi sees the new documentaries as "living documentaries" that are bootstrapped as final products, but entertain an ongoing productive relation between the documentarists, the subjects of the documentary and the audience over time (Gaudenzi 2013). Interactive documentaries can and do work as media repositories that people can contribute to. As they represent infrastructures where media can be collected, people are called to co-create meaning not just by accessing the documentary, but also by participating in media acquisition (Favero 2013). In a number of cases this approach has been seen as a tool for focusing public attention to the subject of the documentary, leading to political action to coalesce around the uploading of documentary materials. These archives are not just open to the contribution of the people, they also aim at involving interaction in broader projects than just the documentary (Green et al. 2017), as in the case of *Highrise*, Kat Cizek's documentary which developed into a community project for the improvement of the residential area around a highrise in Toronto (Cizek 2010).

Green et al. point out how whilst the dynamic of the dialogic internet already reconfigures authorship into "diverse forms of multiple and decentralised authorship" (2017, 6318), the authored mediation of the interactive narratives is still cloistered by the structural agency the interactive documentary predisposes. Attempts at creating infrastructures that invite the user to contribute to the architecture of the documentary (Green et al. 2017) might involve the fieldwork research participant taking an active stance in collaborating not just with content, but with the design of the interactions.

Moreover, this openness also reshapes the temporality of the documentary. Open to contributing to and enriching a media repository, the interactive documentary can become the meeting point of multiple efforts over time. The openness to witnessing change mirrors the ethnographic attention to collecting, reflecting, questioning and reshaping impressions from the field. Interactive archives, social media collections and blog entries can work with the temporary status of ethnographic knowledge. The painstaking recording of the qualitative experiences that form part of note-taking and participant observation provide a model for the kind of archiving that generates new insights at every theoretical re-contextualisation that the new entries force upon the analysis of ethnographic writing (Clifford and Marcus 1986).

Judith Aston's early work with anthropologist Wendy James' *Voices from the Blue Nile* (James and Aston n.d.) highlights how James' forty-year long fieldwork provides

a polyphonic and diverse account of changes in the Blue Nile Region. The long temporality of her research joins the different moments in which the experience of local people has been recorded, and that in which the documentary users access it. According to Aston, although the anthropologist retains authority in the task of contextualising the voices collected in the documentary, she does not have final authority over the use of the archive (Aston and Odorico 2018). As the material in the archive grows, judgement has to be redefined and re-contextualised among anthropologist, documentary subjects and users.

The reliance of the documentary on an interactive infrastructure also brings an important aspect into view. If the analytical tools that served as the basis for ethnographic writing and documenting are always up for reassessment and improvement (Clifford and Marcus 1986), that is even more true for interactive visual ethnography. The interactive documentary is not only open to novel theoretical and stylistic critique, it also is prone to technological obsolescence. Many interactive documentaries on the web were designed using digital tools that are either not currently readable or will not be read by future digital interfaces.[8] Interactive documentaries are prone to bit rot, server migrations, dead links and software incompatibility. Differently from finite texts and time-based media such as films, interactive documentaries have to be tended and routinely maintained. The temporal aspect of the maintenance well reflects the open-ended nature of the interactive documentary.

From the perspective of its design, this forces the ethnographer not only to reflect on the topic and the interaction to implement in the documentary, but also on how to render them compatible and durable with the devices that might support them. Browsers might not be able to read the piece in the future, the software that produced the documentary shifted affordances, the app that hosted the documentary is not there anymore – all these concerns are part of the preparation entailed by the design of interactive ethnography. To brace for this peculiar precariousness means anticipating what might happen once the documentary is published, out there to be interacted with. It stretches the shorter temporality of documentary-making into documentary-taking-care-of. The interactive documentarist has to take care that her work will remain accessible by the user and operate in a way that favours their involvement. Planning ahead might render this operation easier.

However, the contrary might also be cherished. Code obsolescence highlights the finitude of the documentary experience, integrating the platform and the code of the writing as part of the more-than-human entanglement that produces the ethnography. As such, the choice to commit to a specific code and interface might be a statement about the technology that had rendered it possible. As in experimental media, the decaying materiality of the media is chosen to show something that is not there (Pasqualino and Schneider 2014), bearing witness to the affordances that generated it. The interactive documentary can be archived to be opened as a temporary experiment, or a construct that made sense in certain specific conditions for media fruition.

As such, the built-in limits of the digital structures, and their possible breakdown, become yet another affordance to consider in the methodology one might employ when designing an interactive documentary (Box 7.1).

BOX 7.1   MULTILINEAR STORYTELLING

Think about a situation you are familiar with. In order to create multilinear storytelling, think about the different subjects that can constitute your narratives – e.g., actions, people, places, etc. – and the appropriate media to depict them – e.g., sound recordings, motion pictures, still pictures, drawings, etc… How can you orchestrate subjects and media together so as to better tell stories? Some specific examples are given below.

Exploration of a place

- Think about a place you are familiar with.
- Make a list of what you find interesting about it.
- Go to the place and take three videos, three still pictures and three sound recordings.
- Place the media files in a folder in your computer and open them at random.
- Once you have played through the files, write down your first impressions:
  - What stories are you telling? How does the exploration of the places work?
  - Is your narrative covering all the interesting points you previously listed?
- Once you have played all the files in different orders, go back to the same place and take more videos, still images and sound recordings. Play with your narrative once again, including the new media you have gathered.
- What kind of place does your storytelling generate?
TIP: Go to another place and do the same, then play everything together.

Polyvocal narration of an event

- Work in pairs. Each of you brings a camera and a friend who consents to being filmed.
- Think of an event that takes place in a public space: a concert, a festival, a fair, etc…
- Before you go, make a list of what you know will happen: how is the event structured, where does it take place?

- At the event, each cameraman follows their friends, and records their experience.
- When you come back, store the clips on your computer. Name your files to indicate the friends' names and what happens in the clip.
- With your partners, play through the clips, each time discussing which clip to see next.
- Which decisions inform your choices? Do you alternate between friends or do you follow only one of them? Are there juxtapositions that you can make that you could not make editing together the piece in a linear narrative?

Non-linear diary

- Take a picture of a friend every day for a week. Ask them how they are feeling at the moment you take the picture. In a text editor, place one picture per page, and write the sentence they used to describe how they felt. Print the pages. With your friend, shuffle the pages. In turns, pick one page, look together at it, and reshuffle.
- Reflect with your friend about their week. What does their week look like? What new nuances does their week take on when you change the sequence of the days? Does talking about it modify their experience of the week?

Expanded Reality

Much of the sensory experience in the field is linked to knowledge of the place and to the possibility of being there while learning about it (Basso 1996; Feld and Brenneis 2004; Stoller 1989). Connecting one's own research to the geographical specificities of the field is important not only to contextualise the research, but also to reflect about the importance that places have for the research participants. An important aspect of new media affordances for ethnography resides in the multiple possibilities to engage with places.

Web-based documentaries can allow users to explore different locations that can be geo-localised on interactive maps. Thanks to HTML5 frameworks, these documentaries can incorporate information about those places, surrounding the location with metadata that the user can choose to elicit. Maps and places become generative elements that produce a referenced emplacement for the documentary. These elements become other discrete parts of the trans-media storytelling that the anthropologists can use to engage with ethnographic interactive storytelling. An interesting example is Issa Touma's *Notes from Aleppo* (2019). In the documentary, the user follows the Lebanese photographer Issa Touma as he travels to his home after the conflict. The documentary shows the resilience of the families living in the city

during the war. The interactive geographical map allows the user to place the stories in the city of Aleppo – mapping out people, conflict and the photographer's journey back home. The geo-localisation of his videos and photos allows the user to accompany the author in his explorative resettling in post-conflict Aleppo.

This section covers, then, those affordances that offer combinations of digital and analogical environments. The term Expanded Reality (XR) has emerged to cover the growing software and hardware innovations that allow exploration of the combination of digital representations and reality. Expanded Reality includes technologies of Virtual Reality (VR) videos and headsets, 360° videos and Augmented Reality (AR) applications. These interactive strategies provide the means for a thorough involvement: immersive experiential journeys through XR, and emplaced documentaries to allow the users to interact with their environment. In order to better understand the immersive experience that XR involves, allow me to get back to immersion once again.

Transportation and absorption

According to Gordon Calleja, immersion is a polysemic term that has been used to define both the beguiling of our attention, our being absorbed with the medium and the ability of media to transport people into different places (2011). This academic distinction allows Calleja to consider immersion as a multidimensional experience that can offer many facets for consideration. For instance, when we think about a virtual reality reproduction of places, we can consider how much of what we see moves us towards *immersion as transportation* as much as *immersion as absorption* (2011, 26). If immersive documentaries want to bring us somewhere else, our attention must be spirited away, too.

Since their introduction, VR headsets have aimed at the reproduction of a controlled space wherein users can be immersed and perceive places as if they were actually there. These technologies allow the user to see 360° videos that play around oneself as the point at the centre of what is shown; they allow the user to see CGI constructs in the virtual environment; and they allow the user to move around in predetermined reconstructed spaces and interact with digitally scanned versions of the objects and spaces. All the different types of representations that compose VR offer the sense of "being within an apparently frameless 360 degree space" (Rose 2018b, 135).

However, transportation might be more problematic. Maddy Rose describes VR technology as a technology of seeing that stands at an uneasy intersection with a technology of corporeality (2018a). The attention to vision replaces the synaesthetic quality of its embeddedness in the corporeal, abstracting the act of seeing from the act of being in places "and from the act of having a body."[9] The removal of bodies affects the user as much as the ethnographer. In the cinematography that 360° filming recreates, the ethnographer's body is either absent or in front of the camera. The handheld convention of corporeality yields to a "fly on the wall" gaze (Weinberger 1994). The gaze of the person is pinned down by the camera's tripod.

In this context, the lack of framing might let the viewer's sight wander aimlessly about (Westmoreland 2020). Indeed, observational ethnographic cinema has argued for the epistemic opportunity that the wandering sight affords to the viewer (Taylor 1996). However, in the context of XR, such opportunity seems to counter the sort of engagement that observational cinema would like to foster in the audience. The person is pinned down to a perspective point that, although they are free to look around, can easily feel like distance as much as proximity.

As absorption remains part of what transportation aims to achieve, XR affordances build on strategies for involvement in the exploration of the documentary. Immersion is achieved through multiple immersive affordances – the feeling of being visually there is sometimes coupled with hooks for being emotionally there and feeling proximity not just in geographical terms. The XR documentary *Common Ground* (Emerson 2019) adopts shifting strategies to involve the user within the narrative. The documentary explores the history of the biggest housing project in the UK, its demise and the lives of the residents. The strategies for involvement that the documentary uses are multiple. The user can move around in a virtual reproduction of a 1970s living room, or they have the possibility of watching 360° interviews about current residents' stories of the block. The former allows for an exploration of the details that composed the material aspects of everyday lives of the housing complex, from newspaper titles, to programmes on the television, to the kettle going on the stovetop. The latter brings the user to witness the stories of the current inhabitants, and to listen to their complaints about their evictions.

Both interactions allowed for different kinds of immersion in mediated representations of different 'real' experiences. In the first example, moving about in the living room let the users' focus shift from one element to another, simulating a material interaction with objects. In the second case, the forced stillness of the video interviews' viewpoint anchors the wandering eye and forces attention onto the emotional aspect of being there with another person. The eye-level recording of the 360° videos helps maintain immersion through personal proximity.

This ability to transcend into other lived spaces creates a sense of proximity that is both geographical and emotional. However, such proximity does not come without ethical concerns. Kate Nash warns of the risk of "improper distance," whereby 360° videos reproduce the colonial gaze upon the emotions of the distant others (Nash 2018). The ethnographic care for research participants should be incorporated by the filmmakers in ways that allow the user to be critically conscious of the mediation of XR. Authorial choices of how to film and how to engage with research participants can help in creating this consciousness, as can ways for the audience to think about the mediation itself.

On the one hand, Mandy Rose finds that authorial attempts to employ cinema-verité performative engagements[10] help in creating a "reflective position on the viewer [and] a close attention to the point of view of those who are there" (2018a, np). Engaging directly with the people in front of the camera breaks the convention

of the "fly on the wall" and helps to redefine the sense of mediation that XR conveys. On the other hand, riding on the limitations and shortcomings of the medium, new types of visions can be developed. For Westmoreland, disembodiment can be turned to one's own advantage in places that the ethnographers cannot reach. Mark Westmoreland and Sabine Luning secured the camera to the shoulder of a research participant for their documentary *Broken Ground*, about mining in northern Ghana (Westmoreland et al. n.d.). The proximity to the miners' action and body not only reproduces the immersive "improper distance," but also a "variety of perspectives that accentuated both sensual proximity and critical distance" (Westmoreland 2020). These examples lead to different ways of engaging with filming that go beyond the mimetic boundaries of both the documentary genre and the XR affordance.

Emplaced documentary

Immersion by transportation is not the only way to explore spatial affordances of new media. Much effort goes into building documentaries that allow users' interactions to be emplaced in a specific location.

Judith Aston considers techniques of emplacement as valid ways to create "shared experiences with elements of face-to-face and site-specific experience at their core" (Aston 2017, 57). Emplacement projects work by creating a strong link with a place through participative and collaborative strategies. These documentaries are as much *of* the place as *about* the place. Interactive documentaries allow one to explore locations through a constant collaboration with the people inhabiting them about the ways to represent the places; as Aston suggests, they can culminate in flash interventions in the guise of "temporary autonomous zones" (Bey 1991) as spaces for emplacement (Aston 2017, 57). These documentaries reach out to the users to create a discussion about a specific place, creating debate either online or offline (Aston 2017, 57). These types of documentaries offer interactions both in terms of the agency required in exploring the online places they build, and in terms of the interpersonal relations they seek to create by engaging with the places they describe.

A different approach to collectives and places is the *Augmented[archive]* (Behkalam 2011). A mobile app allows the user to upload and archive footage from the urban environment around them. By using GPS, users can only access videos that were uploaded close to their position. Born out of the Egyptian revolution in 2011, the app allows people to collaborate in the creation of public archives to remember and make visible images from the past. This type of approach can also be used to reflect what constitutes a "place." An interesting example of the mixed technique for involvement is the aural and spatial interactive documentary *Pilgrim*. This film (Hutchinson and Unseld 2018) reproduces the voices of trekkers on the Trail of Saint James, the pilgrimage route between France and Spain. The trekkers recount their personal decisions for walking the old pilgrimage route and explain what has enlightened them over the course of the long path. The user goes around with a mobile phone and headphones, following in their steps by listening to their stories.

Pilgrim mixes the tracks of the trekkers with the user's own walking. While listening through headphones, the audience is invited to walk along the path while listening to the pilgrims' stories. The GPS points inform the audio-player to mix the audio tracks and play the pilgrims' stories to the user. Her pace determines who she listens to, and whether she skips or shares her walk with a pilgrim. The result is an interesting mirror of the very interactions that the pilgrims have on the way of Santiago, where they decide to join their path with others or to move along until they find somebody they want to talk to. The aural-spatial interactions reproduce what the documentarist experienced, as walking together is an important practice for the trail's trekkers. By linking Saint James' path with the place they are exploring, the documentary redefines the boundaries of the place – an interactive bridge between the documentary and one's own environment.

These explorations of digital recordings and analogical walks can also prefigure new environmental perspectives. Creating a new sense of the place, these documentaries help in imagining novel types of experiences that the place could generate. For instance, Duncan Speakman's *Only Expansion* casts a prefigurative look at what the landscapes of the future could be (2019). Aiming at exploring the consequences of environmental change, the documentary emplaces the global change well within the place the user walks. By mixing the experience of places with aural immersion, the documentary dips the audience into an imaginative landscape as they walk through their city. The audience walks around with a bag and a binaural headphone set. The bag carries a mixing device incorporating sounds from the environment within the audio-track of the documentary. Walking follows the not-too-specific instructions of a booklet that sets the bewildering mood of the documentary as much as the pre-recorded sounds of environmental change. Around the audience, present sounds of the cities mix with ideas of new future topographies and ecologies. The headphones insulate the user within the immersive soundscape generated through the surrounding feedback. The interaction, then, lies not only in the directions the user chooses to follow but also in the digital mixing that the user receives and interprets.

Julia Scott-Stevenson (2020) describes *Only Expansion* as a way to think about how interactive documentaries can help to propagate ideas of natural cultural entanglement with the wider world. *Only Expansion* creates an ecology that is open to the contributions enacted through the audience's paths and imaginations. It does not reproduce fixed ideas of the nature/culture divide that come with conventional prefiguration of climate change and ecological destruction. Quoting Speakman's own understanding of immersion, she points to the tangled relations of the environment we already dwell in, to find "agendas of care, of attending to the environment we inhabit" (Speakman 2019, 5). By using the affordances' complexities, the documentaries can engender *bewilderment*: a sense of awe that connects us with the environment rather than othering it to self-contained nature (Scott-Stevenson 2020) (Box 7.2).

BOX 7.2   IMMERSIVE DOCUMENTARY

Requirements

- a 360° camera
- a 360° video editor
- a phone
- a cardboard VR headset

Point of view

Place the camera in the middle of the room, or in the middle of a circle of people.

- Agree on an action to perform around the camera – e.g., chatting, playing, walking – and on a signal to start and to stop it.
- Place the camera close to the centre of the group. Position people sitting or standing around the 360° camera. When everybody is quiet, start recording.
- Give your signal to start the action. Once a minute has passed, perform the signal again. When everybody is quiet, stop recording.
- Then place the camera in another position, or change your friends' arrangement, so that it will be closer to some but distant from others, and record a two-minute clip. Finally, do it again, with the camera further away from the group.

Once you can play the video, use your phone in the cardboard headset to do so.

- Reflect on the different points of view. Do they differ in terms of immersion? Do any of the points of view prompt a sense of proximity? What differences, in terms of feeling, do they entail?

Play around with the height of the tripod and try to engage directly with the camera (if you have not already done so).

- How does the perspective change? Does the audience's involvement change? How?

Transitions

Since users in 360° videos can follow multiple actions at once, editing and transitioning becomes trickier. 360° videos are a composition of different videos recorded from the front and the back of the camera. The 360° editing software "stitches" the videos together in a spherical image. According to Mark Westmoreland (2020), 360° can offer new insights on montage techniques, as editing can happen between scenes, but also along stitch lines.

Use the clips you recorded for the first exercise. Using editing software, piece the two clips together.

- First, edit them together in moments in which there is silence. First edit them together without any effects. Then, use transition effects: crossfade, fade in and fade out, etc…
- Reflect on the different transitions. What kind of experience do they introduce? How do they affect your sense of immersion?

Additionally, edit the clip together choosing a cut point in a moment when there is no tranquillity in the clips to cut and join them together.

- How do you decide when to cut? Where does an action end, and where does it start? What kind of experience of the edited scene do you have?

TIP: During the editing, sound is as important as the images in deciding where to cut to the next clip. Can sound help you?

Experiment with the medium. If the editing software allows it, singularly feed the six recordings that compose the spherical clip into it.

- Arrange them and mix their positions up until you are satisfied.
- Reflect on the patchwork you created. What place are you immersed in now? What relations between the videos are now visible?

Conclusion

In this chapter I have reviewed how interactive documentary represents an interesting turn in the possibilities for visual anthropology. During one's own engagement in the field, in the reflection after fieldwork and in planning one's own research, its new affordances grant new ground to enrich storytelling and sensory explorations.

Although forms of involvement are always present in any medium, new media render multilinear storytelling easier to achieve. Anthropologists can include in their stories multiple threads that would normally be excluded by linear narratives. These affordances can foster users' empowerment to engage with research participant's voices in a "murmuration" of novel juxtapositions (Miles 2017), or they can fasten their experience to perspective simulations. These types of storytelling reframe the editing techniques of temporal engagement, creating new timelines for media consumption, and new 'cut' links between relational objects.

Interactive documentaries help the ethnographer to craft explorations of places. Ethnographers can map out what makes the place they call "the field" from a descriptive, emotional, practical and sensorial point of view. New offline and online ways to interact with places help by fostering proximity and engagement. Hybridising online digital spaces and offline face-to-face interactions can bring people together to think about places and show how research with new media can build new spaces of cultural and political empowerment.

Immersive media bring us into the middle of ethical concerns about critical and uncritical ways to represent others. I have shown how to address the problems

related to the immediacy of immersion and the strategies to render mediation both evident and hidden in plain sight. Making immersive documentaries prompts anthropologists to reflect about how their presence in the field is visible[11] and how to frame the new types of vision that 360° and XR propose. Experimental and authorial approaches to immersion create both critical detachment and insight into the mediated reality of the lives of others.

Moreover, critical engagement with software helps new media documentaries reframe the way anthropologists involve research participants in storing, looking at and editing together the media they produce with their interlocutors. Collaboration takes new forms to inhabit and manage the making of ethnographic knowledge. Co-production adopts digital composite archival practices based in long-lasting relations, similar to the ones that characterise ethnographic encounters. The aware-ness of relations in the field, and the care that it takes to foster them, cross-pollinate in the curation and maintenance of interactive platforms. Interactive documentaries and collaborative productions, once established, require attention and problem-solv-ing to avoid technical hitches drawing them apart.

Interactive documentaries, then, offer promising practical and theoretical stand-points to rethink and reshape ethnographic practice. As with any new tool, it is up to the ethnographer to decide what interacts best with their methodologies and with their research participants.

Acknowledgement

Notes

1 Lev Manovich defines new media as "the convergence of two separate historical tra-jectories: computing and media technologies" (2002, 43). As all media now tend to be digital, the 'new media' terminology here stresses the computational affordances of media. According to Manovich, new media is characterised by numerical computation compos-ing modular units; the automated nature of actions; variable and composite possibilities for editing; and, finally, the fact that media now are computer files with a certain size, readable capabilities and compression standards.

2 For Janet Murray (2017), rather than a suspension of disbelief, immersion entails a process of *active creation of belief*, stressing the importance of the active engagement of the user.

3 Korsakow creator Florian Thalhofer describes the need to invent a platform allowing one to write multilinear narrative as a reaction to the inadequacy of linear storytell-ing to describe the moments that compose filmmaking encounters. Single linear visual narratives did not mirror the serendipity and the fragmented nature of ethnography (Thalhofer et al. 2018).

4 Franziska Weidle (2019) calls for attention to the actual media software as a crucial aspect of ethnography. Responding to Webmoor's call to look at what people do with code

(Webmoor 2014), Weidle finds that the invisible structures of interactive documentary of the authoring software are generative of both a new practice of visual ethnography and new ways of seeing (Berger 1972). Building on the concept of "enskilment" (Grasseni 2009) she explains how her experience with Korsakow changed the workflow and her attunement with what is filmable (Weidle 2019; Näser and Weidle 2017). Korsakow is open-access software that help documentarists to assemble and archive media, indexing them with semantic tags to guide their navigation. Users then play the interactive film, choosing the media to watch without abiding to a linear development of the documentary narrative. Clips are linked to each other by the tags, which indicate to the software the presence of a possible connection. The software follows these tags when it randomly proposes to the audience a choice of media to watch.

5 In Korsakow this methodology is facilitated by feeding Singular Narrative Units (SNU) into the software. SNU are the workable units that can be indexed and linked to the others. In other hypertexts and web-based multilinear narrations these smaller units account for each element of the documentary that can be accessed through hyperlinks.

6 Miles uses the metaphor of murmuration, the coordinated yet independent and multidirectional flight of small birds' flocks.

7 Fringes of the demonstrations got into fights with the police. People were identified by police cameras as participants to the violent protests and they were sentenced to prison.

8 While curated databases like the MIT Docubase collect and showcase links to experiments in new documentary forms, these obsolete documentaries might find a house in web archives – like archive.org – which are also developing repositories of old software.

9 Building on Anne Balsamo's work on disability and gender (1996), Mandy Rose makes a compelling point about the VR assumptions of able and male bodies as the standard in which to be embodied through immersion.

10 Jean Rouch's cinema verité is predicated on the explicit presence of the cameraman who interacts with the filmed subject. This method highlights how filming and being filmed are part of the same performance.

11 Edgar Gómez Cruz (2017) notes that the 360° cameras can be visual fieldnotes that can help the ethnographer to reflect on what it felt like for the ethnographer to be in the field. As the presence of the ethnographer is revealed by the camera, reflections about her became easier to formulate.

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