



Framing the Virtual Reality Documentary

GENRE DEFINITIONS, POLITICS OF CANONIZATION
AND THE CHALLENGING OF THE DOCUMENTARY TRADITION

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Abstract

Documentary-making has always adapted dynamically to the affordances of new technologies. This thesis focuses on a new corpus of virtual reality (VR) documentaries, whose appearance calls for contemplation of the aesthetic and political implications of VR technology in the context of their impact on the ‘documentary tradition’. It suggests steps in the conceptualization of the VR documentary practice, understood as a new medium that draws from – and builds upon – traditional documentary conventions.

First, through a comparative case study of the cinematic (2014) and VR (2016) versions of the documentary *Notes on Blindness*, the author claims that VR documentaries appropriate many of the documentary genre’s rhetorical and aesthetic tropes for ‘authentic’ representation of lived experience – yet they also carry separate meanings and call for different representational structures. Next, it is argued that in order to strive for a more in-depth understanding of the VR doc, it is necessary to form typologies and canonizations (as for any earlier genre). Hence, drawing from the theoretical analysis of processes of ‘canonization’ and ‘typologization’ in earlier media contexts, the thesis explores questions of power structure and dynamics between the agents responsible for canon-creation with regard to VR documentaries. The author proposes a more procedural understanding of canon as something that is practiced rather than ‘set in stone’.

The final part of the thesis addresses a widely accepted typology of seven documentary ‘modes of representation’ proposed by Bill Nichols. The author revisits this influential taxonomy in order to suggest how it could be adapted and extended to acknowledge the specificities of VR documentary practices. While Nichols summarizes all interactive forms – which also apply to VR documentaries – in a new mode labeled ‘interactive’, the author argues that a more nuanced rethinking of all the categories is necessary to make them productively applicable to VR content. This more thorough adaptation of Nichols’ framework concludes that while VR documentaries can be said to adopt four of Nichols’ seven modes – albeit in a revised manner – the medium calls for an in-depth reconceptualization of three of his modes: “expository”, “observatory” and “interactive” modes are updated into “interactive exhibiting”, “interactive immersive witnessing” of VR docs and “responsive” and “social” modes of interaction.

KEY WORDS

Virtual Reality Documentary, Empathy machine, Documentary, Modes of representation, Canon, Canonization, Typology.

ABBREVIATIONS

VR (Virtual Reality), VR docs (Virtual Reality Documentaries), i-docs (Interactive Documentaries), RW (Real World), CGI (Computer Generated Imagery), IM (Immersive Journalism), PI (Place Illusion), Psi (Plausibility Illusion).

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Introduction

Documentary film has (for the most part) presented itself as a reliable medium for the delivery of information and reflections on contemporary society. The ‘documentary tradition’, which “relies heavily on being able to convey an impression of authenticity” (Nichols 2017, xii) is rooted in observationalism – the idea that by purely observing the outer world, one can produce universal knowledge and truths about the ‘real’ world, uniquely protected from suspicion, capable of capturing ‘naked’ evidence and fact (Nichols 2017, Plantinga 2005). However, if our discussion of documentary-making only revolved around this problematic promise of perceptible and universal truths, its more abstract representations – ideas, emotions, ideologies, expressive desires and other sensibilities – might remain out of focus. Such aspects are highlighted in more recent documentary discourse, which is rediscovering John Grierson’s classical definition from 1930s of the documentary practice as the “creative treatment of actualities”. This understanding opens the door for new forms and fresh perspectives that might be regarded as more artistic or poetic.

Documentary-making has always been dynamically adaptive to the possibilities afforded by new technologies (Hight 2008). To represent sociopolitical, historical and autobiographical issues in more engaging, interactive and immersive ways – and make them more relatable to new audiences – contemporary documentary-makers are increasingly turning to animation, digital game formats, 3D modeling, 3D scanning and photogrammetry. According to Mandy Rose from the Digital Cultures Research Centre, the ‘immersive turn’ that the appearance of these forms entails, “is illustrated most dramatically by the rapid uptake of VR as a medium for non-fiction” (2018). Thus, a new corpus of virtual reality applications emblemizes this changing media landscape, providing new technological opportunities (with the increasing accessibility of VR headsets) and means of expression for the documentary experience. VR docs are often intuitively taken as a continuation of the cinematic documentary tradition – they are mostly created by film practitioners, presented at film festivals, and reviewed by film critics. But crucially, they are in fact a transition to a new medium of moving-image documentary practice, which inevitably challenges traditional documentary traditions

and theories as it carries them forward. Therefore, I argue that VR docs, as a new platform for nonfiction storytelling, demand new ways of conceptualizing aesthetic and political implications of VR technology for the ‘documentary tradition’.

This thesis suggests steps in the conceptualization of the VR Documentary practice, understood as new medium that draws from – and builds upon – traditional documentary conventions, fused with the affordances of VR technology such as 360-degree vision and embodied interaction via headtracking and gesture-based controllers. I will claim that VR documentaries appropriate many of the documentary genre’s rhetorical and aesthetic tropes for ‘authentic’ representation of lived experience, while also – owing to the different qualities of VR experience¹ – carry separate meanings and call for different representational structures.

RESEARCH QUESTIONS AND SUB-QUESTIONS

Main question: In what ways do new VR developments challenge aesthetic and political aspects of the ‘documentary tradition’?

- SQ1: What role do questions of political economy and institutionalization play in discussions about categorizing and canonizing VR documentaries?
- SQ2: How does canonization, specifically in the case of VR documentaries, need to be re-interpreted, e.g. in terms of ‘process’ rather than ‘object’?
- SQ3: How can Bill Nichols’ classical framework of documentary representation modes be adapted and extended to analyze VR docs?

In order to develop responses to my research questions and to further investigate if VR documentaries may be read through Bill Nichols’ traditional classification of “distinct cinematic modes” (2017) of cinematic documentary representation, I will apply two methods: **narrative interviews** with different parties involved in framing VR documentaries as a new genre and **comparative content analysis** of early VR documentaries.

¹ Sense of presence, immersion, positionality of the user, interactivity and narrative agency – according to Mandy Rose (2018).

METHODOLOGY

All parts of my thesis make use of findings from **three narrative interviews** I conducted at the beginning of my research process (April 2019), either as context or primary sources². I decided to talk with carefully selected experts in the fields of both VR and documentary for two main reasons. Firstly, the literature which addresses the combination of the two fields is still sparse. Investigating this topic is more about searching for answers, than researching those established in prior work. Secondly, I treat ‘documentary’ as a “travelling concept” (Bal), in the sense of travelling from different domains: creation, curation, new media studies. Thus my interviews aim at retracing the travels and unpacking different meanings of documentary. I believe that this concept accumulates by travelling, and my aim was to combine critical perspectives into a joint analysis, a larger meta-perspective on the discourse that currently surrounds the field of VR documentaries.

In an attempt to get a well-rounded account that can be said to adequately reflect on my research question, I chose a sample of experts representing the different areas of academia, curation, and production (according to Bill Nichols, these three fields, plus the audience, form the evolving definition of what counts as a documentary):

1. Prof. William Uricchio (MIT Open Documentary Lab)
2. Mr. Casper Sonnen (director and curator of IDFA DocLab)
3. Mr. Gabo Arora (award-winning VR creator)

By asking my respondents a set of similar questions regarding my main research interests, I aimed to examine the interplay between their different perspectives and narratives on the VR documentary in theory and practice. I believe that such an approach was pertinent in order to gather a nuanced account of how VR docs are currently understood by the state-of-the-art and based on what premises.

² The transcriptions of interviews can be found in three appendices to this thesis: Interview with Caspar Sonnen (Appendix 1), Interview with Gabo Arora (Appendix 2), Interview with William Uricchio (Appendix 3).

In order to gather the different perspectives of my interviewees in a deeper and less filtered way, I chose the method of ‘narrative interviewing’. This is a research practice which presents an active version of how the interview participants (both me as a researcher and chosen interviewees) operate. In this scope, according to Jaber F. Gubrium, the author of *The SAGE Handbook of Interview Research: The Complexity of the Craft* (2012) – the respondent’s agency is recast as “artful, collaborative and suffused with discourse” and thus s/he can produce knowledge, subjects and authority. Instead of conducting a standardized interview, which is based on a controlled, asymmetric conversation dominated by the researcher, I adopted Eliot Mishler’s discussion of “empowering interview respondents” (1986), by bringing them more fully into the picture, and making them equal partners in the interview dialogue. Rather than modeling the interview as a form of ‘provocation and response’, where the passive interviewee is merely a source of single answers to the formalized questions asked by the researcher, I suggested an encounter that might be viewed as more fruitful than an interactional realization. I invited my respondents to tell their own stories freely, thereby lessening the interviewer’s control over the interview.

In Chapter Three, I will apply Nichols’ framework of ‘modes of representation’ to the analysis of VR docs. While I consider Nichols’ framework extremely relevant for the analysis of VR documentaries, I will argue that it is insufficient for a full account, and thus it requires an update in the context of this new medium.

To suggest my new perspectives on Nichols’ framework, I **compare** Nichols’ documentary case studies that exemplify his different modes to the chosen VR documentaries of parallel rhetoric. This will allow me to better examine which parts of his framework can be applied well to VR docs, and which parts call for rethinking.

STRUCTURE OF ARGUMENTATION AND THEORETICAL FRAMEWORK

Chapter One is devoted to outlining an initial conceptualization of the “VR documentary”. First, I explore the theoretical assumptions about the VR documentary and its definitions, emerging from both the documentary film and the VR discourse. Implementing Paul Virilio’s theoretical perspective on the ‘disappearance of reality’ and the ‘crisis of

perception' (*The Vision Machine*, 1994), and his critique of technologically mediated experiences³, alongside Bill Nichols' discursive framing of 'documentary' (updated ed. 2017) and Janet Murry's definition of 'immersion' (*Hamlet on the Holodeck*, updated ed. 2017), I examine how VR applications transcend existing theories of documentary film. Next, through a case study of *Notes on Blindness* (both a documentary film and a VR experience)⁴, I demonstrate how VR docs, through ambivalent and sometimes playful disposition between creativity and 'reality', are challenging the documentary tradition and its claim to 'unmediated' representation.

In order to strive for a more in-depth understanding of the VR doc, it is necessary to form typologies and canonizations (as for any earlier genre). Calling these applications 'VR documentaries' plays into the politics of canonization, in which the curators, academia and makers try to implement their own framing of the concept. In fact, multiple canons already coexist – though not always explicitly – both in a top-down and bottom-up manner, competing to define the field. **Chapter Two** aims to better understand the mechanisms and politics behind these processes.

Emphasizing that 'canonical works' showcase different types of modes of representation and that they are later "chosen to be reworked, alluded to, satirized, become privileged points of reference [...] (to be) given homage to or rebelled against" (Staiger), I will assert that canon-creation is also necessary for the development of a typology. Hence, drawing from the theoretical analysis of processes of 'canonization' and 'typologization' in earlier media contexts – Janet Staiger's article "The Politics of Film Canons" (1985) and Howard Becker's book *Art Worlds* (updated ed. 2008) – this chapter explores questions of power structure and dynamics between the agents responsible for canon-creation with regard to VR documentaries.

To demarcate a departure from the politics of film canons (as theorized for example by Staiger), I will conclude by proposing a more procedural understanding of canon as something that is practiced rather than 'set in stone'.

³ The analysis is based on my final paper for the "New Media Theories" course.

⁴ The analysis is based on my final paper for the "Body, Mind, Method" course.

The final, more speculative **Chapter Three** of the thesis, addresses a widely accepted typology of documentary cinema proposed by Bill Nichols in the 1980s. Although a few of improvements have been suggested in the literature since then (for example in his last edition from 2017, Nichols adds an “interactive mode” next to “observatory”, “expository”, “participatory”, “poetic”, “performative” and “reflexive”), in principle his historically derived and structurally argued types, distributed on a spectrum from expository to performative modes of presentation, are still readily acknowledged to this day. I revisit this influential taxonomy of documentary modes of representation in order to suggest how it could be adapted and extended to acknowledge the specificities of VR documentary practices.

While Nichols summarizes all interactive forms – which also applies to VR documentaries – in a new mode labeled ‘interactive’, I will argue that a more nuanced rethinking of all the categories is necessary to make them productively applicable to VR content. As an extension of Nichols’ work, I will first contemplate whether (and which of) these modes may be applicable to VR documentaries. I will then suggest my own initial typology of VR documentaries’ modes of representation which is based on my comparative content analysis. My claim here is that while VR documentaries can be said to adopt four of Nichols’ seven modes – though in a revised manner that I will discuss – the medium calls for an in-depth reconceptualization of three of his modes. I will therefore suggest to update Nichols “expository”, “observatory” and “interactive” modes to “interactive exhibiting”, “interactive immersive witnessing” of VR docs and “responsive” and “social” modes of interaction.

Chapter One: Framing the ‘Virtual Reality Documentary’

There is another world, but it is in this one.

William B. Yeats

INTRODUCTION

The term ‘virtual reality documentary’ has been rapidly emerging over the last five years⁵. It increasingly appears in creative and public as well as in curatorial (as film festivals premiere VR docs alongside traditional films) and academic discourse (as new media and documentary scholars look to define and study this genre).



Figure 1. A screenshot from the IDFA DocLab website.

⁵ For the first time in 2012, when the *Sundance Film Festival* premiered the VR documentary *Hunger in Los Angeles* by Nonny de la Peña. The full timeline is available at: <http://vrdocumentaryencounters.co.uk/vrmediography/vrmediography/timeline/>.



Figure 2. A screenshot from the YouTube website showing the Home (2016) VR Documentary by Efran Saadati, Rufus Norris and Toby Coffey.

Nonetheless, the precise, all-encompassing definition and understanding of this term seems to still be somewhat in the open, with no clear consensus.

During my interview with Caspar Sonnen, the director of IDFA DocLab (one of the first institutions in the world to add new media interactive projects to the film festival), he openly conceded that, despite being generally “happy” with the term ‘VR documentaries’, he “really [doesn’t] know what that means”. Sonnen’s critical perspective on the VR documentary shortens to the characteristics of “something that is more spatial and more interactive than film” (2019), which is in line with Janet Murray’s argument that “VR is not a film to be watched but a virtual space to be visited and navigated through” (2016).

To give another example, in his article “VR: Between Hope Hype and Humbug” (2018), Prof. William Uricchio writes:

A heavily marketed alternative reality, VR evokes much while specifying little, referring variously to a bundle of quite different technologies or the latest must-have media gadget [...] It promises the ultimate in realistic entertainment – and a contested set of psychological effects. (n.p.)

Thus for him, the notion of genre in VR is just as ambiguous and indeterminate as the underlying technology. Also in accordance with this ambiguity, the Motion Brothers' "VR Glossary" website does not offer a specific definition of VR documentaries.

Since the central phenomenon I address in this thesis lacks a clear definition, the present chapter will be devoted to outlining an initial conceptualization of the "VR documentary" – to serve as a starting point for my further considerations of its typologies and taxonomies.

I begin by unpacking the terminologies VR docs combine. I will first explore Bill Nichols' discursive framing of 'the documentary tradition' (2017) alongside theoretical assumptions about the VR documentary and its definitions, emerging from both the documentary film and the VR discourse. Next, I will examine how VR applications transcend existing theories of documentary film. In this part I will however engage more with a broad characterization rather than suggesting one definition of VR documentaries that best captures a particular form of nonfiction filmmaking. My purpose is to identify central tendencies of typical VR docs and to draw attention to the ways in which their techniques may be understood and analyzed.

Then, through discussing the influential adaptation of the documentary *Notes on Blindness* (2014) into a VR experience of the same title (2016)⁶, I will demonstrate and concretize how VR docs, through ambivalent and sometimes playful disposition between creativity and 'reality', are challenging the 'documentary tradition' and its claim to 'unmediated' representation.

I examine the above concepts in the light of John Grierson's definition of a documentary film as the "creative treatment of actuality" as well as Aston's and Gaudenzi's characterization of interactive documentaries.

⁶ Both works are based on John Hull's unique testimony of loss, combined with visualizations, in an attempt to uncover the interior world of blindness. In the traditional documentary version, Hull's words are lip-synched on screen by actors, whereas in the VR version, the interactor is put in the shoes of the blind protagonist.

DEFINING THE 'DOCUMENTARY TRADITION'

Nonfiction film, often equated with documentary, is a media form that proclaims to provide information and reflection on contemporary society. It has a long tradition rooted in observationalism: the idea that, purely observing the outer world, one can produce universal knowledge and reveal real, historical truths. According to Nichols (2017), the three central assumptions and qualifications that a documentary must inherit are as follows:

- Documentaries are about reality; they're about something that actually happened.
- Documentaries are about real people.
- Documentaries tell stories about what happens in the real world.

That being said, the genre is constantly in flux and its boundaries are therefore blurred. Accordingly, in his *Introduction to Documentary* (2017), Bill Nichols argues that there is no precise way of thinking about the documentary genre:

Rather than regret the failure of documentary films to comply with any single definition, and rather than lament the ability of any single definition to identify all the possible types of documentary, we can accept this fluidity as cause for celebration. It makes for a dynamic, evolving form. Fluid, fuzzy boundaries are testimony to growth and vitality. The amazing vigor and popularity of documentary films over the last thirty five years is firm evidence that fluid boundaries and a creative spirit yield an exciting, adaptable art form. (Nichols 2017, 104)

Nonetheless, there is a set of qualities that distinguish this form of cinema. Documentaries use documents and facts to first interpret them and then provide viewers with stories, arguments and perspectives on the historical world. They convey impressions and often persuade viewers to stand for what they convey. They do so in an expressive and engaging way, most often by using 'rhetoric'⁷ as a form of speech to convince audiences about the issues raised. Reaching from the theories on rhetoric, for documentary film all these types of proof are relevant: ethos (ethical proof that generates an impression of

⁷ In the Western tradition, the uses of spoken and written language fall into three broad categories: Narrative and poetics (for telling stories and evoking moods), Logic (for rational, scientific, or philosophic inquiry), Rhetoric (for creating consensus or winning agreement on issues open to debate).

moral character or credibility for the filmmaker), pathos (compelling proof that appeals to the audience's emotions) and logos (convincing and demonstrative proof that uses apparent reasoning). Each proof strives to convince the audience of a documentary perspective's validity.

According to Nichols (2017), rhetoric is one of the "four foundation stones for documentary film" (99). The other three are: narrative storytelling, poetic experimentation (see Chapter Three, The Poetic Mode) and indexical documentation. Indexical documentation (any kind of recording or visibility of an image) is important, as the genre relies on the materiality of the 'trace' of real, historical world to construct a spectatorial 'trust' in the authenticity by showing an observational, 'real' evident⁸.

VR AND THE DOCUMENTARY IMAGINATION⁹: CHALLENGING THE DEFINITION

However, by citing John Grierson's classical definition that a documentary is a "creative treatment of actuality" (1930s), Nichols thereby acknowledges that documentaries can represent reality in many inventive and alternative ways. The 'actuality' part of this definition refers to the idea that documentaries depict aspects of a world that is real, as opposed to fiction films, which portray imagined worlds. The 'creative' part transmits the idea that a filmmaker always provides a subjective perspective on this cinematically captured reality. These capacities are particularly prevalent in times of rapid changes in filmmaking technologies, aesthetic norms and audience literacies.

The documentary's claim to generating knowledge by only observing reality is frequently problematized both by academic theory and practice. As Honess Roe claims: "Life is rich and complicated in ways that are not always available to observation" (2011). Multiple authors have indeed identified a shift in the field of documentary from the observation of

⁸ As early as in 1932 Charles Peirce defined the canonical semiotic analysis of the cinema that emphasized a need for an indexical element that will construct a spectatorial 'trust' in the authenticity by showing an observational, 'real' evident.

⁹ The concept of **documentary imagination** challenges not only traditional 'documentary observationalism', but rather distinctly contrasts with all its values and assumptions, and provides intriguing outlooks on the changing potentials of the documentary genre.

perceptible, universal truths to a focus on situated knowledge and invisible realities – as the classical observational documentaries truthfully, and without a filmmaker’s intervention in the events, depict factual information about the outer world, they seldom produce a full understanding of the reality. By ‘full’, I mean the embodied, affective, situated and factual or abstract forms’ knowledge that viewers can only learn from direct, experiential encounters rather than second-hand from experts. And, as mentioned in the introduction to this thesis, in the contemporary media environment, viewers are demanding a more immersive experience.

Interactive Documentaries (i-docs) – including VR documentary projects that are characterized in the next section of this chapter – deeply sustain this need by redefining the filmmaker-subject relationships and inviting viewers to co-create the storytelling process. As opposed to the observational mode of documentary, i-docs often rely on the filmmaker’s own voice to organize the film – the time and space is designed and stylized to emphasize its affective, embodied dimension. In this way, a film may discover alternative kinds of actively engaged, strongly personal truths of what it feels like to experience the world in a particular way.

I-docs challenge traditional concepts and ways of thinking about documentaries in classical literature, because even though they are about reality, real people, are observational, present themselves as truthful, or use animation as a representational strategy in a nonfiction context, they are often regarded as too creative or too imaginative to be classified as documentaries¹⁰. However, for Judith Aston and Sandra Gaudenzi (2012), any project that starts with an intention to document the ‘real’, and uses digital interactive technology to realize this intention, can be considered an interactive documentary.

Moreover, i-docs should not be seen as an uneventful evolution of documentaries in the digital realm, but rather as a form of a nonfiction narrative that uses action and choice,

¹⁰ For example by Charles Forceville of the Dept. of Media Studies, Universiteit van Amsterdam.

immersion and enacted perception as ways to encourage empathy, construct the real, rather than to represent it.

Hence, due to the ongoing explorations of the increasing levels of interactivity and shifts towards embodied experiences, the ‘documentary tradition’ is challenged by critical questions of documentary scholars and practitioners. However, I would argue that there is value in forgoing a precise singular definition in favor of a better understanding of the transformation of documentary genres.

CONCEPTUALIZING THE ‘VIRTUAL REALITY DOCUMENTARY’

What constitutes a ‘real’, ‘virtual’ and ‘embodied experience’ has shifted and changed within historical and cultural contexts. In *Dawn of the New Everything* (2017)¹¹, a recent book by computer scientist Jaron Lanier, who coined the term “virtual reality” in the early 1980s, readers may be surprised to discover no fewer than 52 definitions of VR. But the curiosity about virtual realities can be traced back to the 17th century and the dualistic philosophy of Rene Descartes, which describes the separation between the mind and the physical body. His famous maxim “I think, therefore I am” asserts that reality is primarily grounded in the immaterial realm of thought, rather than in the physical world (Chan 2014). This opens the door to the possibility of experiencing ‘a reality’ in the virtual sense. Later, Descartes’s ideas became highly influential in the Western culture, especially in the field of cinematography as well as other mediums and their ability of representation, that I believe are important to frame VR as a continuation and potentially a combination of older ideas, rather than something completely new and detached from media-archaeology.

For example, one of the first cinematic representations of immersion¹² in computer-generated virtual worlds was shown in *Tron* (1982) by Steven Lisberger, where the

¹¹ Link to the publisher’s website: <https://www.penguin.co.uk/books/110/1109194/dawn-of-the-new-everything/9781784701536.html>

¹² I will define the concept later in this chapter.

protagonist Kevin Flynn (Jeff Bridges) transcends his physical body and is reanimated in a computer-generated game.

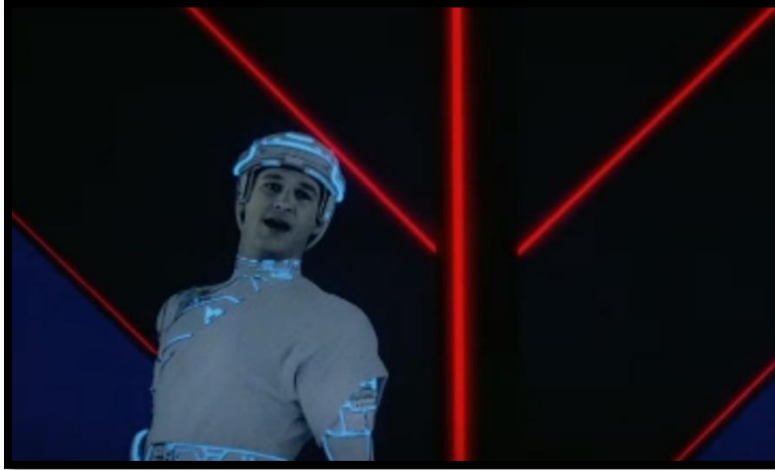


Figure 3. A screenshot from Tron (1982).

According to Melanie Chan, in the 1980s and 1990s¹³, “virtual reality was often represented as a ‘wondrous technology’ that could provide an opportunity to transcend the limitations of the physical embodiment” (Chan 1). Today, almost 40 years after this conception, we can argue that embodiment is actually a fundamental aspect of immersion in VR, rather than something to be transcended. Immersion, according to Janet Murray’s interpretation, often recalled by other researchers, is

a metaphorical term derived from the physical experience of being submerged in water. We seek the same feeling from a psychologically immersive experience that we do from a plunge in the ocean or swimming pool: the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all of our attention, our whole perceptual apparatus. (98)

In continuation of Murray’s metaphor – where the ‘ocean’ stands for freedom, the thrill of ‘letting go’, of overwhelming one’s sensory capacities – when experiencing multiple sensory aspects of VR, we (as spectators) jump into an ocean of distant reality, and thus we are able to sense its presence. Furthermore, as we are surrounded by the waves of

¹³ That is in the times when Paul Virilio wrote *The Vision Machine*, on which I will develop in the later parts of this chapter.

stories, we may achieve an effect of ‘realness’, because immersion reduces the impression of mediation in telling the story¹⁴.

Apart from embodiment and the feeling of immersion, a VR environment also involves interactivity¹⁵ with the virtual world. This spatial realism enables spectators to move around and view objects from different perspectives: When virtual reality is sufficiently ‘real’, users become immersed in their virtual experiences: the stimuli from virtual interactions dominate their perception and cognition (Chan). Therefore, instead of viewing an image with a defined boundary such as a frame, VR offers the possibility of moving beyond the frame and into the image. And that possibility shows one of the most significant differences between audio-visual practices and VR. Here, depicting the ‘real’ is no longer accommodated by aesthetics and the apparatus of the 2D screen. Thus, “we do not just see virtual environments – we experience them through the body” (Chan 135), as the cultural theorist Mark Hansen sums up the VR experience.

Furthermore, a VR system typically consists of a set of displays (auditory, visual and haptic) and a tracking system, which enables the spectator to position her/himself. When a head-mounted device is fixed close to the eyes, the head tracing ensures that the images on the right and left are updated according to the spectator’s head movements with respect to the designed virtual environment. Audio, however, is delivered via earphones. Thanks to these VR devices and techniques, the spectator has the illusion of being and moving within virtual surroundings, which – in nonfiction, documentary works – contain representations of real people.

Importantly, VR is not a single technology. The report “Virtually There: Documentary Meets Virtual Reality” (2016), prepared after the MIT Open Documentary Lab, lists three VR image creation methods:

- a) 360 video (a scene is recorded in all directions in order to create a seamless spherical image)

¹⁴ The concept of ‘immersion’ will be further unpacked in Chapter Three, *From ‘observational’ to ‘interactive immersive witnessing’* section.

¹⁵ The concept of ‘interactivity’ will be unpacked in Chapter Three, *The Interactive Mode* section.

- b) 3D capture (several techniques that collect data from the real world in order to create models of spaces, people, and objects in VR that may be rendered in ‘real time’ as the user experiences the VR piece; popular 3D capture methods for VR include ‘3D scanning’, photogrammetry and videogrammetry)
- c) Computer-Generated Imagery (CGI for VR creates images from computer graphics rather than capturing data from the real world)

According to the authors of the report, these techniques “can all generate pre-rendered experiences, but only some of them can create real-time interaction” (Uricchio, Ding, Wolozin, Boyacioglu 8). Furthermore, current explorations and developments of the multi-sensory, and increasing levels of interactivity, dispute a single definition of the medium.

VR in nonfiction context

However, for many years, VR technology had emerged mostly in the context of game industry and pornography – in her article “How VR Porn Is Secretly Driving the Industry” (2018), Katie Greene shows multiple statistics which exemplify that claim¹⁶. Only recently, these creative technologies are more often applied to the nonfiction context, exploring their potential in the field of documentary. Following the trend of a dynamic relationship between the audience and media content – as VR offers a new, powerful illusion of ‘being there’ within a scene (Nash 2018, 97) – journalists (for example from *The New York Times*, *The Guardian*, *the BBC*)¹⁷, NGOs (United Nations) and other institutions have become involved in introducing digital platforms to their projects. Seeking the public’s affective engagement, new forms are being constantly developed and introduced.

To give a simple example, I would like to recall Nonny de la Peña’s question that she asked at the beginning of her TEDWomen Talk in May 2015: “What if I could present

¹⁶ The statistics are available here: <https://www.vrfocus.com/2018/04/how-vr-porn-is-secretly-driving-the-industry/>.

¹⁷ In November 2015, VR in the news took a great turn with *The New York Times*’ release of over 2 million Google Cardboard headsets.

you a story that you would remember with your entire body and not just with your mind?”. During her long experience of being a journalist in print, broadcast and documentary, de la Peña always wanted her audience to intensely and authentically react to her evocative stories, as she believes it may make a difference and inspire people to care and act. That is why, as she said in the later parts of the TED Talk, she started doing journalism and virtual reality together, marrying her knowledge and skills with the love of technology. By employing VR to news-stories (both the 360 degree video and animated techniques), de la Peña creates a new type of sensory adventure, beyond traditional newsprint: the medium by which the information is transmitted, adds new, evocative, haptic and deeply affective dynamics that improve the ‘realness’ factor. De la Peña’s practice goes in line with Kool’s claim that VR technology and its possibility to experience the feeling of ‘being there’ enhances the engagement in the reality “as sensory information supplements the intake of the narrative” (Kool 5).

This digital revolution (or, in Peter Wintonick’s words, the “digital tsunami” [2013] over documentary-makers) – of inventing new forms of documentary tools, expressions, platforms, or formats, leads to a crucial – particularly for nonfiction VR – ‘sense of presence’. Crucial, as its purpose is less directed at the entertainment value, and more on bringing to light human-interest stories. In addition, presence “offers audiences a special subjective experience, rather than the edited third person experience afforded by television or film” (McRoberts 101). According to McRoberts’ article “Are we there yet? Media content and sense of presence in non-fiction virtual reality” (2017), the main four features of VR are:

- immersion,
- positionality of the user (how the user is situated within the virtual environment, and to what extent the spatial narrative addresses her/him directly),
- interactivity (the user’s ability to explore the virtual environment, to look and move around, and manipulate objects as we would expect in the real world),
- narrative agency (the system’s ability to engage the user in a role of co-constructing reality, where they have some ability to affect the story).

When used in nonfiction narratives, VR “offers the potential to offer new and unique insights of human experience” (McRoberts 114). In this context, it is not highly relevant whether the project is created in the technique of 360 degree video, 3D scanning, or CGI. The immersive turn, according to Mandy Rose from Digital Cultures Research Centre, “is illustrated most dramatically by the rapid uptake of VR as a medium for non-fiction” (2018). Indeed, in 2014, Nonny de la Peña was a lonely researcher and pioneer of exploring VR in journalism, but already one year later VR was emerging within the projects of other mainstream platforms. Today, VR documentaries are present at the biggest film festivals (for example *Sundance*, *IDFA*, *Tribeca*, *Rotterdam*).

This change (various forms of VR becoming a tool and particular interest to documentary makers, journalists and activists) is propelled not by the general technological development, but also by VR’s potential and claims to deeply affect the audience¹⁸ which is a fundamental aim of most documentary work. The notion that the experiential nature of VR can allow the spectator to meaningfully access the experience of another, and thus simulating stronger emotional responses to nonfiction narratives and issues they illuminate, began the discourse of ‘VR as the empathy machine’ (see the “VR: the ‘Ultimate empathy machine?’” section of this chapter). The best proof for that claim may be the fact that a large number of people have donated money after watching VR documentaries about Syrian refugees¹⁹.

It is nothing new that journalistic portrayals that use indexical, realistic imagery²⁰ (historically photography, then film, now immersive VR) have an influence and impact on people’s opinions and decisions in reality. Kool exemplifies this claim in his article (2016) by showing that the unedited portrayal of the Vietnam War had changed people’s views on the military, foreign policy, and their trust in the government.

Thus nonfiction VR that is based in immersive storytelling, offers its audience an opportunity to access worlds that are unreachable from their normal, everyday

¹⁸ Not only to entertain, for example.

¹⁹ This was the case of the VR documentary *Clouds Over Sidra* (2015) created by Gabo Arora and Chris Milk, produced by the *United Nations*. The official UN VR website: <http://unvr.sdgactioncampaign.org/>.

²⁰ I will introduce the notion of indexicality in the further parts of this chapter.

perspectives, and to experience how human beings are challenged by various, often dramatic circumstances.

Rethinking VR documentaries through Paul Virilio's 'disappearance of reality' and 'crisis of perception'

Nevertheless, some postmodern cultural theorists portray the logic of contemporary VR media not in terms of aesthetics or as new forms of perception, but as having a problematic issue with representing historical reality. Setting this critical terrain, Stephen Talbott (1995) claimed the problem with VR is that it has been entangled with the idea that computers can improve our lives, but that on the other hand social interactions may transform into technological ones – as if technological progress destroyed human relations, by fulfilling its goal 'too well'.

In *The Vision Machine* (1994) Paul Virilio writes:

The telescope, that epitome of the visual prosthesis, projected an image of a world beyond our reach and thus another way of moving about in the world, the logistics of perception inaugurating an unknown conveyance of sight that produced a telescoping of near and far, a phenomenon of acceleration obliterating our experience of distances and dimensions (4)

Virilio's metaphor of a telescope – thanks to which the distance between the observer/observed or subject/object is reduced – symbolically shows that the mediated and mechanic representation inundates the human scale of perception. Hence, according to his critique of technologically mediated experiences, this intimate connection between embodiment and technologies is destroying our ability to be fully present (in space) and to perceive the present (time), as the mediated perception does not share immediacy. In this view, Virilio follows Marshall McLuhan's theoretical tradition that the medium, rather than its instances, is the message (1964).

In the past, arguments concerning disembodiment in relation to space, time and speed, were also made in connection to the development of the steam train, the automobile, or the radio which transmitted sound over vast distances. And according to McLuhan the channel through which a message is transmitted is more important than the content or

meaning of the message. Moreover, this ‘channel’ or a character of the medium is an another message that can easily be unnoticed.

However, when the analogue media still claim a resemblance to actual objects and actual vision, the digital image is entirely abstracted and circulated at speeds that defy the human sensorium and haunt our perception. In fact, the sense of vision is in the heart of Paul Virilio’s theories. In *The Vision Machine* (1994) he discusses the concept of a camera as a prosthetic eye, operating as a medium device that changes vision. He claims: “Vision, once substantial, becomes accidental” (13) – an objective vision is replaced by a tunnel vision of recording. In his works, he outlines the descent of a visible and simultaneous ascent of the invisible of the reality, which mutates not only our perception but also the new modes of mediated representation. In the ‘old’ modes of direct representation, there was no distinction between notions of actual space and time. The case of indirect vision – the understanding through Virilio’s metaphor of telescope – involves the disappearance of “real-time” information. That simulation also models a new reality, and provokes classic questions of what is real and what is unreal, how it is (mis)represented, and if reality actually disappears.

Principally, the act of representation serves to illustrate a chosen person, situation or a phenomenon. When writing about a cinematic image, Paul Virilio asks “Do we represent the construction, or construct the representation?” (1991, 103), and hence he stresses that a cinematic ‘real world’ has to be disbelieved since it is only a simulated representation, a reproduction of ‘reality’. Consequently for him, mediation and representation are two different things: as representation ceases to evoke a real world of immediate perception, media serve to mediate, not between subjects and objects, but between subjects. Thus for Virilio, ‘Virtual Reality Documentaries’ which are based on construction of the real world, are deeply problematic in the core of their existence. The production of illusion that the spectators can enter and become a part of the virtual world is actually at the heart of VR works.

Debating with Paul Virilio’s conceptions, we must consider how technology may alter our sense of the ‘virtual’ and ‘real’ even more. For Virilio, our immediate perception – the ability to see, hear, or become aware of something through the senses and the way in

which something is regarded, understood or interpreted (as defined by the Cambridge Dictionary of English) – is allied with temporal and special continuity, and it is independent of our cognition²¹. Therefore, in line with Virilio's theory, mediated or mechanical perception “produced” by immersive VR systems does not share immediacy.

It can be argued, however, that the spectators of a nonfiction documentary assume a solid correspondence between the reality and its representation and their experience of media technologies involves verifying the encounter of a mediated presence.

This ‘reality claim’ and Virilio's concept of ‘disappearance of reality’ is closely linked to the indexical quality of the image (See ‘Documentary tradition’). Certain technologies and styles of VR documentaries seem to guarantee the authenticity of what we see, while others give rather only an impression of authenticity. However, when asked about the importance of the indexical element in VR documentaries, William Uricchio argued that he is “a little bit cynical about it” (2019), as for him departing from realism (especially when digital pictures, data and numbers are used) can also help VR creators build the “truth claim”.

Nonetheless, as I demonstrated before, VR productions and VR devices are created at a rapid pace²². So the question is how has the academic focus on VR shifted over time? Furthermore, why do spectators seek to change the quality of their perception of the surroundings? And not only in the fiction-gaming context, but even more often in the nonfiction VR representation.²³

²¹ His phenomenology of perception derives from Husserl, who also shares the dilemma of the relation between perception, memory and expectation.

²² According to statistics, “the VR industry is growing at a fast pace with the market size of virtual reality hardware and software projected to increase from 2.2 billion U.S. dollars in 2017 to more than 19 billion U.S. dollars by 2020. Another forecast projects revenues from the global virtual reality market to reach 21.5 billion U.S. dollars in 2020. Mobile based virtual reality head-mounted displays are forecast to account for about 75 percent of global VR display sales by that time, as the number of mobile virtual reality users worldwide is forecast to grow to more than 130 million” (source: <https://www.statista.com/topics/2532/virtual-reality-vr/>).

²³ For example, every year the IDFA festival has been showing more and more VR documentary projects. The list for 2018: <https://www.idfa.nl/en/selection/106920/doclab-competition-for-immersive-non-fiction>.

CASE STUDY: NOTES ON BLINDNESS

Trying to define how VR fits but also extends existing documentary characteristics I will now turn to the award-winning documentary *Notes on Blindness* (2014) directed by Peter Middleton and James Spinney. It is an interesting example because it plays with two options of representing reality – the feature documentary was later, in 2016, adapted to an immersive virtual reality (VR) project of the same title. Notably, I decided to use the example of *Notes on Blindness*, because – as I gathered from the interviews – this VR project is regarded by all my respondents as “canonical”, which is important for the second chapter of this thesis.

Both works are based upon John Hull's²⁴ unique audio diary²⁵ of loss of sight, as well as on BBC interviews with Marilyn, Hull's wife. These sources are supported by metaphoric visualizations and textured sources in an attempt to uncover the interior world of blindness. In the traditional documentary version, Hull's words are lip-synched on screen by actors (the film blends the features of 'real' and 'performed' within the documentary framework), whereas in the deeply embodied VR, the interactor is put in the shoes of the blind protagonist and taken into different kinds of sensory experiences.

²⁴ John Hull (1935-2015) was Emeritus Professor of Religious Education at the University of Birmingham and Honorary Professor of Practical Theology in The Queen's Foundation for Ecumenical Theological Education, Birmingham. In 2012 the Royal National Institute of Blind People (RNIB) granted him a Lifetime Achievement Award for his contributions to the literature on blindness. His writings in education, theology and disability have been translated into a dozen languages. (source: <https://spckpublishing.co.uk/touching-the-rock>)

²⁵ Later published as a book, *Touching the Rock. The Experience Of Blindness* (1990). According to the publisher, the book is a unique exploration of that distant, infinitely strange 'other world' of blindness. Hull writes of odd sounds and echoes, of people without faces, of a curious new relationship between waking and dreaming, of a changed perception of nature and human personality. He reveals a world in which every human experience – eating and lovemaking, playing with children and buying drinks in the bar – is transformed.



Figure 4. Left: Original photo of John Hull; Right: the actor Refe Beckley depicting Hull in the documentary film.

The feature film is composed of three chapters, each exploring a central theme of the diaries. The first focuses on the role of the visual in memory and the construction of the self – John describes blindness as “the borderland between dream and memory”. The second investigates Hull’s struggle with acceptance of his state and the question of whether he would ever be able to truly find peace with blindness – the viewers see a number of painful instances of John’s panic-induced asthma attacks or the physical manifestation of his sense of isolation. Finally, the last chapter is a celebration of sensation – Hull’s first glimpse of the advantages of being blind and his nuances of nonvisual perception.

Throughout the diaries, John recounts his vivid “technicolor dreams” and the “last state of visual consciousness” which he compares to watching films. That is why, in order to distinguish Hull’s description of blindness, the filmmakers chose the very poetic and aesthetic approach. This is evident, for example, in the scenes where the sound of rain is presented as visions of surging waves dragging the protagonist into the depths of the ocean.

According to the filmmakers, the VR version of *Notes on Blindness* “adds layers to the feeling of the perception of reality by creating an embodied experience for the spectators” (Middleton, Spinney 2016). Although this project is also based on John’s sensory and psychological experience of blindness, “the interactive experience complements the story world of the feature film” (Middleton, Spinney 2016): each scene addresses a memory, a

short moment or a specific location from John’s audio diary, and by utilizing positional audio and real time poetic computer-generated animations, it creates a deeply immersive experience in a “world beyond sight”.

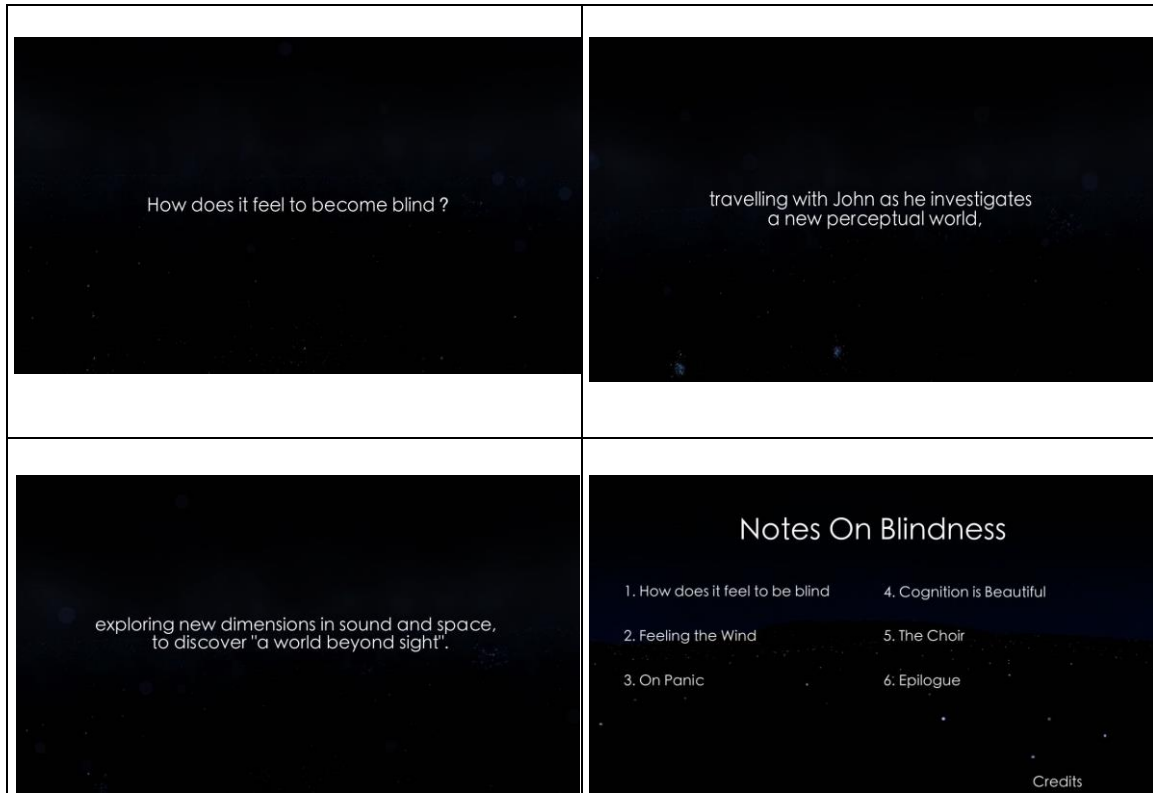


Figure 5. Screenshots from the VR version of Notes on Blindness (2016).

This version of artistic form of expression invites the spectator to experience a ‘hybrid space’ where the distinction between the virtual and the physical becomes blurred. The VR documentary tends to play on spectators’ enacted perception, while encouraging them to move in space. As the spectator maneuvers through an interface that is physical (although augmented by the digital device), the embodiment and situated knowledge are constantly enhancing new situated meanings – for example, during subsequent parts of this experience the spectator gradually ‘loses’ sight, which creates a feeling of confusion. In one significant part, the spectator at first hears Hull’s description of a rainy and windy weather, and then, as the visuals turn into blackness, the sounds of wind blows are added, making the spectator turn their body towards the sound source. Thus in that sequence, rather than being told about how blindness feels to Hull, VR allows an embodied idea of

the experience being described. This creates an experience that challenges the enacted perception of the world (Aston, Gaudenzi, 2012) and poses questions about the media's ability to faithfully capture the reality of another, and broadcast it to an audience.

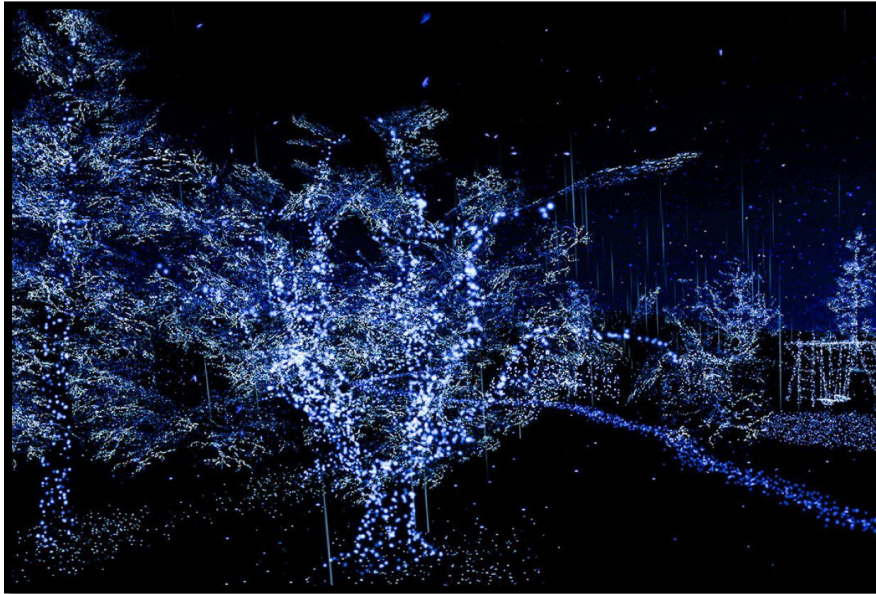


Figure 6. A screenshot of one of the sequences of the Notes on Blindness VR experience (2016).

However, according to the VR creators, their most important intention for this VR is to raise emotional empathy, a mirrored somatic response to Hull's emotional state, by achieving the perception and cognition of a blind person (2016). The spectator is meant to empathize with the VR experience and John's testimonies in order to understand his emotional choices. Empathy, in this way, where a spectator's and creator's emotional states switch places via the artifact, could provide access to Hull's mind and state.

To pave the way towards exploring different types and avenues in which embodied aspects of the VR documentary spectatorship in cinematic and VR documentary, I will start by introducing the field of 'sensory studies' and the theoretical perspective of the 'cinesthetic subject'.

David Howles: The sensory turn of cinematic experience

An academic tradition, started by Marshall McLuhan (Scolari 2009) and later supported by other cinema theoreticians, states that the 'material base' of the medium not only

determines the way we perceive what it shows us, but also defines the nature of the medium itself. That perspective, albeit contested by some as being overly deterministic, puts technology in the central position of analyzing the cinematic experience.

By embracing this line of thought, cinema could be reduced to a device. I will now examine a different approach to the study – the one that focuses on the spectator, whose senses, reflexivity and practices, I will argue, are activated by the medium. This framework identifies cinema as a mode of seeing, feeling, and reacting – no longer tied only to a ‘machine’.

David Howles, Professor of Anthropology at Concordia University and general editor of four volumes of *Senses and Sensation. Critical and Primary Sources* (2018), states that sensory studies²⁶ “involve a cultural approach to the study of senses and a sensory approach to the study of culture” (2003). The ‘sensory turn’ or stronger ‘sensory revolution’ is closely connected to the pictorial turn, which in the humanities and social sciences had exposed the visual communication in contemporary culture. This, according to Howles “created a space for exploring how not only vision but all the senses function as signifying systems independent of their representation in language” (n.p.).

In this section I will adapt Howles’ concepts as I believe they provide valuable perspectives to understand *Notes of Blindness* and also add nuance to the notion of VR documentaries in general.

In his essay *The Expanding Field of Sensory Studies* (2013), Howles proposed a set of eight concepts that highlight a series of topics for further research in the developing field of sensory studies. I would like to distinguish three, which I believe, are key assumptions for this chapter’s line of argument:

1. The senses are not simply passive receptors. They are interactive, both with the world and each other.
2. Perception is not solely a mental or physiological phenomenon. “The perceptual is cultural and political”

²⁶ The term ‘sensory studies’ was first used in 2006 by David Howles.

7. "The senses are everywhere". They mediate the relationship between idea and object, mind and body, self and society, culture and environment."
(Howles n.p.)

All the above concepts stress that relations among the senses – their interactivity, their mediation between the body and mind, and the human's cultural perception – deserve great attention to be examined, as senses may cooperate, oppose, be hierarchized or equal, fused or separated, and be felt simultaneously or sequentially. These views are closely related to the main questions of this chapter – what is the sensual experience of movies and specifically non-fiction VR: is it only seeing and hearing, or perhaps also the embodied experience of touching, moving, tasting and smelling? What exactly does the cinematic image do to the body? And furthermore, how does VR technology change the spectator's perception?

There are lists of qualities that determine the VR experience. The one I found particularly accurate in terms of examining the parameters that determine the quality of the VR experience is that created by Mel Slater from the Institute for Brain, Cognition and Behavior at University of Barcelona (2009), which comprises the following eight categories:

- the graphics frame rate (how long it takes to graphically render a presently visible portion of the virtual environment),
- the overall extent of tracking (apart from head tracking, how much of the rest of body movement is tracked),
- tracking latency (how long it takes before a head movement results in a correct change to the image displayed),
- the quality of the images (how great are the brightness, spatial, color and contrast resolutions),
- the field of view (how great the visual field of view is, compared to what is possible in normal vision, and to what extent the displays surround the participant),
- the visual quality of the rendered scene (to what extent objects appear geometrically like those they are supposed to depict, and how realistic the illumination is),
- the dynamics (how well the behavior of objects conforms to expectations),

- the range of sensory modalities accommodated (and within each sensory modality, the fidelity of its displays).

In the *Notes on Blindness* VR experience (2016), all of these qualities – especially the beautiful visual graphics and dynamics – were highly present in the experience. The best proof for that claim would be the fact that this project is the most prominent title in terms of festival appearances and awards received (2019)²⁷ – it got 3 awards and appeared at 8 festivals. By comparison, the second most prominent VR documentary *Home* (2016) also got 3 awards, but was present at only 3 festivals.

Furthermore, I would argue that discussing Howles’ concepts and Staler’s list in conjunction is valuable as the list refers to concrete technological affordances that enable sensory stimulation as conceptualized by Howles – especially in terms of a rich range of sensory modalities that are accommodated in the VR *Notes on Blindness* experience.

Vivian Sobchack: ‘cinesthetic subject’

However in her essay collection *Carnal Thoughts: Embodiment and Moving Image Culture* (2004), Vivian Sobchack deploys a new perspective of humans’ engagement with the technological mediation:

(The film experience) mobilizes, confuses, reflectively differentiates, yet experientially unites lived bodies and language, and foregrounds the reciprocity and reversibility of sensible matter and sensual meaning. Our fingers, our skin and nose and lips and tongue and stomach and all the other parts of us understand what we see in the film experience. As cinesthetic subjects, then, we possess an embodied intelligence that opens our eyes far beyond their discrete capacity for vision, opens the film far beyond its visible containment by the screen, and opens language to a reflective knowledge of its carnal origins and limits. (84)

In the third chapter *What My Fingers Knew*, Sobchack uses the term ‘cinesthetic subject’ to portray a film spectator (not VR), whose encounter with the film absorbs multiple senses in the creation of meaning. She argues that it is possible to be ‘feeling touched’ by movies – in the literal, not figurative sense. Moreover, this ‘feeling’ leads to

²⁷ The dataset is available here: <http://vrdocumentaryencounters.co.uk/vrmediography/vrmediography/>, in the “Film festivals and awards” section.

understanding the differences that exist between images and bodies, imagination and practice, the body as an individual's 'home' and the rest of the world.

And indeed, I too, as a 'cinesthetic subject', had a strong sensual experience of watching *Notes on Blindness* in its traditional documentary form. Beyond John Hull's touching words and story, the carefully adapted sensibilities of the film's cinematic aesthetics enhanced the perception of his blinded reality. The distinction between the color-palette of the photos before and after Hull had lost his last vestige of sight, the uncanny camera angles and movements that give off a sense of confusion, and the mix of his recording with powerful music alongside natural sounds and follies in the audio-track all ease the spectator's leap into Hull's sensorial and emotional world and allow him to empathize with the experience of coping with blindness.

One could argue that such use of expressive cinematic techniques and special effects makes the film more fictional and less "actual". For example, in one scene Hull confesses that as he was becoming blind, his motion perception had changed, so that instead of walking he felt as if he was swimming in his house, and the film depicts Hull's house as being completely filled with water. But I would argue, following Nichols, that documentary cinema is a representation rather than reproduction of reality, and that such aesthetics and effects intensify the film's representational affectivity, and hence the spectator's ability to effectively imagine Hull's inner reality.

VR: the 'Ultimate empathy machine'?

The discourse around empathy that has become pervasive in connection with VR nonfiction started after "The birth of virtual reality as an art form" (2016) TED talk given by filmmaker Chris Milk. In this talk, Milk started "experimenting" with film as a medium with modern and developing technologies to build the "empathy machine" which can allow the viewers to better understand people and worlds completely alien from our own. Here, what is worth addressing, the term 'empathy machine' is a rhetorical construct with a political purpose, i.e. to signify that VR is allegedly able to 'produce' emotions like a machine produces a commodity.

During his long practice Milk realized that VR films involve deeper emotional reactions than the films he had made the traditional way. He claims that when faced with the vividness of these reproduced realities, spectators feel a powerful sense of empathy with the characters with whom they share a digital setting. After directing along with Gabo Arora the aforementioned *United Nations'* film about a Syrian refugee camp (*Clouds Over Sidra*), Milk stated that VR could affect and change the minds of people by perceiving and empathizing with humanity. He said:

through this machine we become more compassionate, we become more empathetic, and we become more connected. And ultimately, we become more human (...) we found a unique, direct path into your senses, your emotions, even your body" (Milk 2016).

However, Milk's claims are challenged by many. Firstly, the desire of filmmakers to create empathy and the experiential enjoyment of empathy of audiences is not originally a VR concept. Joshua A. Fisher from the Georgia Institute of Technology argues, "VR is not necessarily doing anything new" (Fisher, 2017). Secondly, as Kate Nash discusses, the "belief in the connection between immersion, empathy and a moral orientation towards distant others" (2017) is problematic, because the nature of nonfiction VR as any other factual media does not provide the responsibility to actually experience what a documentary's witness is experiencing. Lastly, as William Uricchio admitted during his interview (2019), there is an audience looking for the 'empathy machine', however those he would call "marketers and social change" or "promoters". For him, the concept of the 'empathy machine' is a return to the 'effects theories'²⁸ (from the 1930s and 1940s) that are often akin to Nazi propaganda and advertising and the idea that media can change people. Notably, Uricchio's Nazi reference also inevitably has political implications, whether he intends them or not.

Nonetheless, even if the discourse on the "empathy machine" is problematic, VR – also in the case of *Notes on Blindness* – produces a deep feeling of being involved in the events, rather than just observing them on the screen. The distinction between 'experience' and

²⁸ For example, the 'hypodermic needle model' that suggests that media can 'inject' emotions and sentiments into the passive populations and thus the audience is immediately affected by these messages and cannot escape from the media's influence.

‘consciousness’ however should be made in terms of engaging with the subjects of documentaries. Surely the spectators of *Notes on Blindness* cannot really experience what Hull went through when losing his sight. But, if they can maintain a distance and stay critical towards their affective responses and empathetic feelings, they can get another – next to the cinematic – insight into the subjective experience of the other.

CHAPTER ONE: CONCLUSIONS

Notes on Blindness is a good example to show how immersive experiences can redefine the idea of cinematic storytelling. Both versions aim to produce a strong documentary experience by activating the spectator’s imagination and empathy, but they do so in very different ways: the cinematic version guides the viewers, using carefully crafted imagery and sound, through Hull’s history, whereas the VR version is designed to digitally immerse spectators in the sensory environment of the blind protagonist.

From my perspective, both works can be said to have achieved, to some extent, the goal of enabling a stronger relation and ‘understanding’ of the state of blindness. Yet although Middleton and Spinney seek to document and then design representations of a unique aspect of the reality of being blind for their audiences, the rhetoric around their VR experiences, which presents them as reality, is problematic.

A VR documentary claims its mediations as true representations of a lived reality, even though it really does transform bodies into mutable wire frames or animations. These experiences refer to the already mentioned “creative treatment of actuality”, but these designed and emotionally charged experiences are constructed and dramatically interpreted. Undergoing processing by this interpretative mechanism is, in fact, the only way in which such imagery can come to be presented as “empathic actualities” (and this goes for VR as much as for traditional cinema). Thus here, I would agree with Joshua Fisher that this complicates the claims of empathy made by VR filmmakers, because the user does not empathize with John Hull in reality, but with a designed reality of a creatively treated representation (4) which also goes in line with Paul Virilio’s radical critique that VR is a mechanism that disrupts representation.

The filmmakers' claim that they had produced the VR version in order to eliminate the errors of our perception by creating an embodied experience for the spectators and to trigger empathy for Hull, is – as my previous analysis has shown – highly questionable. Firstly – following Howles' and Sobchack's theories, which address the traditional versions of films and their pursuit of the spectator's sensual perception and experience – the traditional cinematic medium already provides the spectator with a strongly embodied and empathetic experience – and while VR's capacity to induce the same may be greater, there is no deep qualitative difference between the two. Secondly, I find that the empathic 'actuality' of the VR version does not establish a direct correlation between the spectator's experience and that of Hull, but rather, that s/he experiences emotional and cognitive empathy with a VR directors' perspective: with their attempt to interpret and represent Hull's reality from the point of view of having sight. This understanding stands in stark tension with the VR project's premise of putting the spectator directly into Hull's shoes, and with its declared premise of eliminating perceptual faults and distance.

On the other hand, I am unable to fully agree with Virilio's radical critique, that VR is a mechanism that disrupts representation. For me this medium – as I strived to examine when taking the example of new forms of the documentary genre – may only supplement or augment the reality by enabling the embodied experience through possible movement, vibration, interactivity and nonlinearity of time, which may change our immediate perception, but gives more time to reflect on present objects, places or issues. After all, these representative virtual realities are designed to have a profound emotional impact on the users. And for this reason, claims to full understanding through empathetic experience need to be taken with a grain of salt.

Although Paul Virilio's theories and main concerns raise awareness of possible problems of distinguishing between original, authentic objects or social interactions and the 'degraded copy' of the real, he cannot be regarded as someone who is against technologies or information revolutions. His 'aesthetics of disappearance' of reality, due to the technological establishment of new created hyper-reality, only emphasizes the transformation of the real world which should generate uncertainty about how far we can

go virtual, to the point at which we agree to combine both – ‘real’ and ‘virtual’ worlds with here and now. Certainly it is important to draw attention to the potential to lose perspective in the way that VR spectators would feel that they actually experienced being blind (in the case of Hull’s story) or visited the refugee camp in Syria (*Clouds Over Sidra*), and thus a critical distance and reflection on VR experience is necessary.

To conclude my findings from Chapter One and to further develop the conceptualization of VR documentaries as well as their ability to challenge the ‘documentary tradition’, I define “VR documentary” as a documentary that can be experienced through the VR system including a set of auditory, visual and haptic displays and a tracking system. Additionally, a VR doc can be presented through the three techniques that are mentioned in the “Virtually There” report: 360 video, 3D scanning and CGI.

Chapter Two: Typologies and Canonizations

Grouping, classifying, and finding typologies are long-honored and traditional pursuits in the acquisition of knowledge.

Janet Staiger (1985)

INTRODUCTION

As Chapter One demonstrated, VR techniques and terminologies are in constant flux, reflecting the changing state of the medium itself. Therefore, VR (and hence VR-docs) may be uncomplicated to characterize, but remains troublesome to define in a strict manner. Essentially, one of the purposes of the conference “Virtually There. Documentary Meets Virtual Reality” (2016), organized by the MIT Open Documentary Lab, the John D. and Catherine T. MacArthur Foundation and The Phi Centre, was to make an attempt at classifying and defining current VR techniques “in order to clarify their directions and lay out their affordances” (Uricchio, Ding, Wolozin and Bayacioglu, n.p.).²⁹ This second chapter of my thesis has a similar intention: I argue that a clear classification or typology of different types of VR documentaries will lead to a deeper and more comprehensive understanding of the field.

VR documentaries, just like cinematic ones, adopt various techniques, address numerous issues and display multiple sets of styles or forms. Moreover, documentary filmmakers and VR creators steadily come up with new, alternative approaches, be it adopting previous forms or abandoning traditional ways. Prototypical works that first implement such innovations are often imitated by other works, without the intention of copying them exactly. They may thus form alternative representational modes that serve as ‘litmus tests’, which challenge traditional practices. Therefore, before attempting to create a possible typology of VR documentaries (see Chapter Three), I will first revisit Bill Nichols’ framework of ‘modes of documentary representation’.

²⁹ The report was written and published after the conference; their typology of VR techniques is mentioned in Chapter One, ‘Virtual Reality Documentary’ section.

As I have mentioned before, the creation of typologies is often linked with searching for ‘exemplary works’ that set a fixed characterization of a type or mode of representation. These works are regarded as ‘canonical’, ‘reference points’, ‘masterpieces’, ‘landmarks’ or ‘moments’. Each mode is comprised of examples that we can identify as prototypes or models, providing an exemplary expression to the most distinctive qualities of that mode. Other filmmakers aim to draw on such prototypes as they “inflect with their own distinct perspective” (Nichols 2017, 113). In that respect, to pave the way towards creating a possible typology of VR documentaries in the next chapter, in the second part of this chapter I will discuss the notion of canonization and the venture of canon-creation. I will analyze the role of canonization through the theoretical perspective of Janet Staiger’s ‘Three Different Politics of Film Canons’ (1985) and the findings from Howard Becker’s book *Art Worlds* (2008), and try to address the questions of who selects works to be a part of a canon and why; what criteria they should use; who needs canons, who is responsible for their creation, why they are important for the art world, whether a canon of VR documentaries already exists (here I will also use the findings from the interviews) and, finally, what kind of a ‘canon’ it should be regarded as.

Next, by placing an emphasis on the fact that “canonical works” show different types of modes of representation³⁰ and that they are later “chosen to be reworked, alluded to, satirized, become privileged points of reference, pulled out from the rest of cinema’s predecessors. As ideal fathers, these select films are given homage to or rebelled against” (Staiger 4), I will conclude that canons also contribute to making typologies (understood as systems for arranging things in groups) of works. This thought is bestowed in the introduction to the book *The Shifting Definitions of Genre: Essays on Labeling Films, Television Shows and Media* (2008) by Lincoln Geraghty and Mark Jancovich. Its authors claim that while many critics have disproved the notion of a canon in film, literature and other cultural works, “most studies of genre still seem to operate around canonical texts” (1). In other words, even though the canon was often supposed to be only a group of great works of art that represented ‘the best that has been created in the world’, genres are

³⁰ Importantly, my research is not based on genre studies (although citing Uricchio from my interview “genres emerge from the canon”) but on a typology of modes of representation within the documentary and VR documentary genre.

usually examined in terms of key works that are either claimed to be the artistic high points, the markers of key shifts within historical development, or taken to represent pivotal features or tendencies within the genre. Moreover highlighted works composing a canon are more likely to be seen, experienced, and – ultimately – remembered and preserved as they are most often exhibited by various institutions. In this scope however – coming back to Janet Staiger’s notions – a canon enables investigation of how art pieces become influential. What I will argue however is that when examining canon creation, different connections become visible: political, social, economic structures and technical. A canon is therefore also an instrument of power and a means for selection.

In the third part of this chapter, “From ‘object’ to ‘process’”, I will critically reflect that this normative understanding of a canon is problematic from a contemporary standpoint, and claim that a core function of a canon is not only to select and highlight the most important or influential works, but also to perform as a galvanizing starting point for the institutional field. A canon is thus never a finished list, but functions as a toolbox, always in flux, so that alternative canons can be made.

TYPOLOGIES

In the aforementioned report “Virtually There” (2016), the authors state that for the purpose of VR projects, they differentiate VR works based on different technologies (360 video, CGI, 3D scanning). Other institutions that research, exhibit or work with new media also make their typologies, like:

- “Moments of Innovation” by MIT Open Documentary Lab & IDFA DocLab which makes typology of different media qualities;
- “Docubase” by MIT Open Documentary Lab, which presents documentary new media (including VR) projects that may be differentiated by ‘language’, ‘country’, ‘year of production’, ‘topic’, ‘technology’, ‘technique’ or ‘festivals’;
- or “Within” website, a company that presents innovative, entertaining and informative story-based virtual and augmented reality³¹ and divides the

³¹ *Within* brings together immersive experiences from the world’s finest VR creators – from gripping tales set in worlds of pure imagination to documentaries taking the viewers further inside the news than ever before. Founded in 2014 with the goal of expanding the potential of immersive storytelling, *Within* creates, acquires, and distributes premium AR and VR experiences across web, mobile, console and headsets. With their deep expertise in multi-media

experiences into ‘experimental’, ‘horror’, ‘documentary’, ‘animated’, ‘music’ and ‘new releases’:

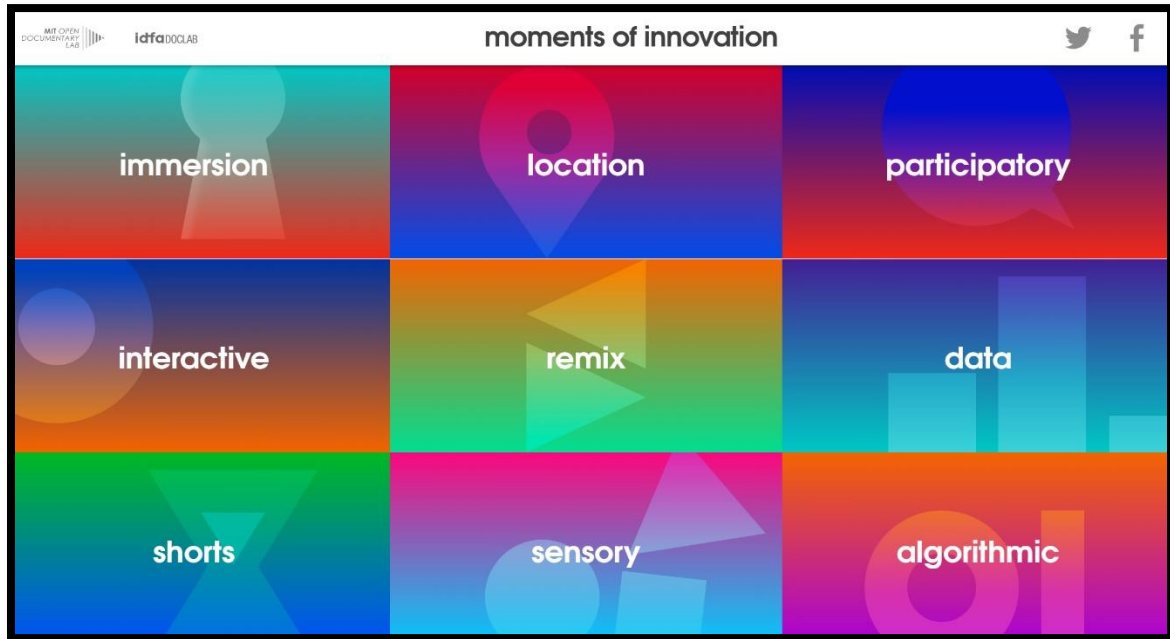


Figure 7. A screenshot from the Moments of Innovation project's website.

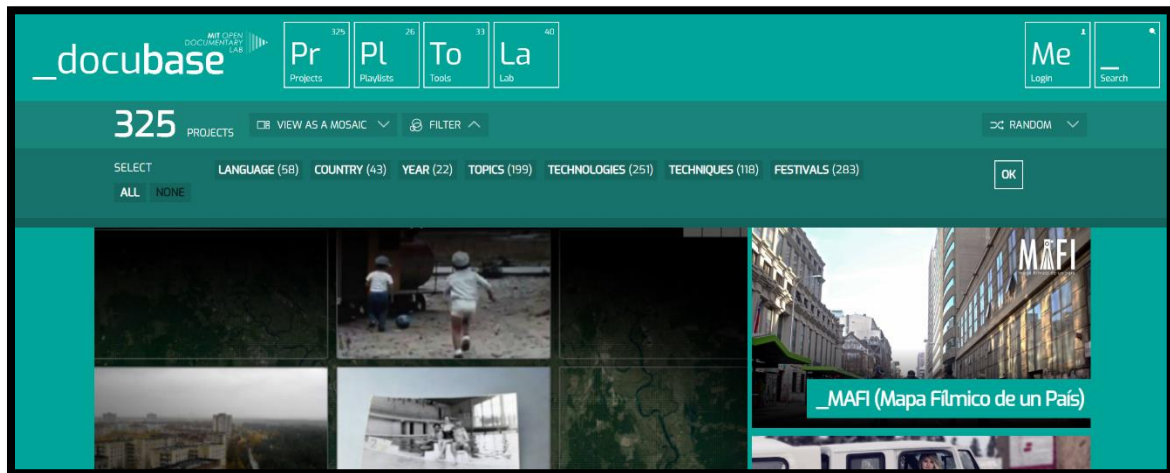


Figure 8. A screenshot from the MIT Open Documentary Lab website.

narrative, *Within* creates tools, formats and proprietary software to differentiate its original content and enable future immersive media creators (from the official *Within* website).

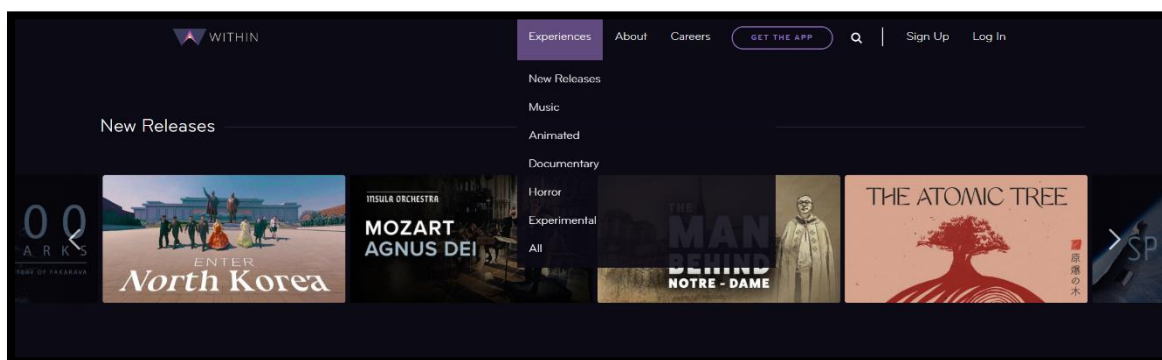


Figure 9. A screenshot from the Within website.

Surely, the affordances and interface rhetoric (Stanfill) are also used in above examples to implement these taxonomies.

NICHOLS' MODES OF REPRESENTATION AND THE POLITICS OF TYPOLOGIES

Genre study considers conventions that characterize various groupings. And if considering a documentary (or VR documentary) as a distinct genre – like horror films, westerns, or romantic comedies – this means that documentaries contain certain rules or conventions (see Chapter One) shared by other documentary projects. However, importantly, as Carl Plantinga writes in his article “What a Documentary Is, After All” (2005), “the category ‘documentary’ embodies a wide range of films in the various moving-image media” (105). Indeed, documentaries do not have the same, fixed artistic expressions and neither do they represent reality in the same ways. What actually counts as a ‘documentary’ remains open to debate among filmmakers, institutions and audiences. Therefore, when defining what the ‘documentary genre’ is in general, it is helpful to distinguish between different types and modes of documentary.

As argued by Platinga (2005), of the various possible categorizations in this scope, the most influential conceptual mapping is in the work of Bill Nichols, who proposes seven modes of documentary representation³². His typology of modes, refined and revised over

³² Although a number of improvements have been suggested in the literature since then (1980s), in principle his historically derived and structurally argued types, distributed on a spectrum of modes of presentation, are still readily acknowledged to this day.

the years, is adopted and adapted by film theorists and critics as a useful tool for analysis. For William Uricchio, for example, Nichols' project delimits "essentially rhetorical categories which work in other media forms like VR, photography, literature or maybe even like theater" (2019).

According to both Nichols and Plantinga, these modes had emerged at a particular time, some have come into or fallen out of favor, and all are subject to the vagaries of fashion and critical practice. Yet films continue to be made in each of the modes (and as I will claim in Chapter Three, VR documentaries as well) and so they remain a viable way to chart the documentary terrain. I will argue that any attempt to characterize a documentary must take into account various kinds of aforementioned subgenres.

In his book *Introduction to Documentary* (2017)³³, Bill Nichols, an American film critic and theoretician known for his pioneering work on the contemporary study of documentary film, differentiates documentaries according to seven different types of cinematic documentary films: 'observational', 'expository', 'reflexive', 'poetic', 'participatory', 'performative' and 'interactive' (I characterize every mode separately in Chapter Three, however, following this paragraph I briefly present the 'common use' for each mode). Those modes, according to Nichols, define "the look and the feel" (107) of a documentary film. They also establish a loose framework of how filmmakers may set up conventions a given film could adopt – although the characteristics of a given mode give structure to a film, they do not dictate every aspect of its construction. Furthermore, they provide specific expectations that viewers anticipate to be fulfilled. Importantly, according to Nichols, most works "display characteristics of multiple models and modes. Filmmakers are under no obligation to choose one and only one model or mode" (108). The typical features of a given mode give structure to a film, but they do not determine every aspect of its organization – after all, there are no laws and only a few genuine rules when it comes to creative expression. However, to conclude, these modes refer to formal

³³ For the purpose of this study, I used the revised and updated edition from 2017. Importantly, the last mode, "interactive", is described in Nichols' works only from the 2017 edition. Before that Nichols wrote only about six other modes.

strategies of documentaries but also to potential interpretive frames that can be applied to them.

Modes:	Common use:
1. Expository mode	Provide an account of a subject through a commentary of images or illustrations
2. Poetic mode	Create an aesthetically pleasing experience in relation to some aspect of the historical world
3. Observational mode	Follow and observe social actors as they go about their lives
4. Participatory mode	Feature engagement between the filmmaker and subjects to draw them out in revealing ways and to develop a story or perspective
5. Reflexive mode	Draw attention to conventions, assumptions and expectations underlying documentary films
6. Performative mode	Stress a filmmaker's embodied, expressive engagement with an issue, situation or event
7. Interactive mode	Structure a web-based, interactive experience to enhance our understanding of the historical world

Figure 10. Table of Bill Nichols' modes of representation based on his book Introduction to Documentary (2017).

I would argue that Nichols' seven different types of documentary representation ("observatory", "expository", "participatory", "poetic", "interactive", "performative", "reflexive") are particularly influential for two reasons: firstly, they show how a typology (which tangibly informs the discourse around the genre) can be made, and secondly, because it can be used as a tool for examination if it is applied or, if necessary, adapted to VR documentaries.

Mixing modes

According to Nichols, new modes are established for three reasons. Firstly, documentary filmmakers respond to limitations set by other modes by searching for alternative ways to represent reality. Secondly, creators react to influential, prototypical or canonical films – they want their new projects to be different from, better than or more like these films. And finally, filmmakers are influenced by technological developments and possibilities (see Chapter Three) as well as by institutional restrictions or initiatives – many of which aim to better relate to changing audience expectations.

Certainly there are films that primarily center around one mode in their organization. However, according to Nichols, once the modes are established, they usually overlap and blend together in a given project. A film may incorporate elements of the expository, participatory and observational modes, for example, regardless of its chosen framework (diary, report or biography). To demonstrate this, recall my case study of *Notes on Blindness* (2014). This documentary contains aspects of: 1. the expository mode – the viewer is provided by the narrator with information on how it feels to be blind; 2. the poetic mode, as a few scenes use allegories of how a blind person feels (expressive cinematic techniques and special effects when the film depicts Hull’s house as completely filled with water); 3. the reflexive mode, as viewers may empathize with the subject; and 4. the performative mode, as what we see is a re-enactment of genuine situations. Essentially, as Nichols writes, “filmmakers are under no obligation to choose one and only one model or mode” (108).

This practice of mixing modes holds true for many films, however “it does not mean that the categories are inadequate so much as that filmmakers frequently adopt a fluid, pragmatic approach to their material, blending different models and modes to achieve a distinct result” (Nichols 110). According to Nichols, filmmakers who are familiar with previous works and aware of the basic typical features of different modes usually exhibit fluidity in their ability to utilize a wide range of conventions and techniques to create a style and voice uniquely of their own.

CASE STUDY: THE TYPOLOGY OF THE IDFA DOCLAB

Yet the need for classifications and groupings does not originate primarily from academia – as the first part of this chapter may suggest. To give a non-academic example, I will recall the findings from my interview with Caspar Sonnen from IDFA DocLab, who said at the beginning of our conversation:

One thing that is very good to mention is that we of course need to classify and make typologies for our audience, but also for ourselves and for the artists that submit to us. (Sonnen 2019)

“Of course”, as Sonnen explained in the later part of the interview, because it’s clearer how to talk about the projects and how to work with them. It is especially vital for such an organization as IDFA DocLab, as they present a wide, multi-directional spectrum of art projects, always striving to exhibit “most innovative, more new media” (Sonnen).

According to Sonnen, originally IDFA DocLab had one competition (treated as a categorization): *Digital Storytelling*, which was open to “everything that was not film”. But after five years, when VR technology was beginning to ‘explode’ in the industry, the organization decided that other (not VR) non-film documentary projects need to be distinguished, because VR appeared to take much of the attention and thus Internet-based, not headset-based interactive art, which to a certain extent had a much longer tradition, at least in the public eye, than VR. Therefore, DocLab made a split: from that point they divided the program into *The Digital Storytelling* competition and *The Immersive Nonfiction* competition. In Sonnen's view, this distinction allows IDFA DocLab to better follow the course of how the industry develops and grows.

Importantly for Chapter Three of my thesis, these two competitions are not divided into VR and ‘non-VR’. As Sonnen sees it, in *The Digital Storytelling* competition the audience can find stories told on devices that are available and accepted by consumers, and which can be experienced outside of the festival as well as during the festival. *The Immersive Nonfiction* on the other hand, is a competition for projects which are more experiential, more sight-specific, created more for dedicated hardware or specific technologies that people are not yet familiar with “in their living rooms” or in their everyday.

During our interview, Sonnen stressed that their classifications are not only about technology, but also about how a story is told. Giving the example of room-scale³⁴ experiences that were part of *The Immersive Nonfiction* competition in 2018, Sonnen admitted that the IDFA team was currently contemplating if in the next edition in 2019 these kinds of specific installations, which challenge the ‘nonfiction’ element, should perhaps be regarded as *The Digital Storytelling* or even as another new category only for that particular interactive experience, “as the borders of an experience slip”.

Moreover, Sonnen stresses that DocLab tried to make sure that a diversity of types of experiences and works is available: from serious to playful; from short to long; from collective to individual; from linear to performative. Diversity, in this sense, could also be explicitly addressed as a potential function of canonization.

Additionally, IDFA DocLab runs a website on which all the projects that were presented during the festival since the 2007 edition are listed. Surprisingly, there is no information on the website about the two categories that Sonnen recalled in the interview (*The Digital Storytelling* and *The Immersive Nonfiction*), but rather a somewhat messy and random group tagging of themes and platforms that the projects are sorted through.

³⁴ Room-scale (sometimes written without the dash) is a design paradigm for virtual reality (VR) experiences which allows users to freely walk around a play area, with their real-life motion reflected in the VR environment. Using 360 degree tracking equipment such as infrared sensors, the VR system monitors the user’s movement in all directions, and translates this into the virtual world in real-time. This allows the player to perform tasks, such as walking across a room and picking up a key from a table, using natural movements. In contrast, a stationary VR experience might have the player navigate across the room using a joystick or other input device. (Wikipedia 2019)

“in the process of negotiation and gatekeeping” that will enable it to gain canonical status, which will later help this field to be better recognized, developed and respected.

Shanken’s central notion is deeply shared by LIMA³⁵, a platform for media art, new technologies and digital culture in the Netherlands. For them, media politics and media activism are crucial aspects that should lead to include digital art (including VR projects) in the art canon. In the discussion “Canonization as an Activist Act”³⁶ that took place in Amsterdam in 2018, the members of LIMA stated that although canon formation has been subject to criticism (I will elaborate on this in the latter part of this chapter), it is also an important art – as well as a historical instrument, since it provides appreciation and visibility to works and helps with creating typologies.

That is why LIMA, in collaboration with experts from the digital culture field, have created *The Digital Canon* of the Netherlands. This canon is composed of the twenty most prominent and influential works made between 1960 and 2000 on Dutch soil by the artists who lived or worked here over a long period of time:

³⁵ LIMA is the platform in the Netherlands for media art, new technologies and digital culture, where the discipline is actively questioned and where the field, and its position in society is reflected on. LIMA represents artists and supports them in the presentation and development of new work. LIMA also preserves the memory of Dutch media art through its digital repository and conservation services. LIMA is an international pioneer and center of expertise in the fields of archiving, preservation, and distribution of media art. In collaboration with museums, artists, academies, and universities, LIMA researches and develops services and tools for makers and institutions, as well as methods and practices for dealing with digital art thoughtfully and sustainably. Our approach is anchored within a sizeable multidisciplinary network, both nationally and internationally (source: <https://www.li-ma.nl/lima/about>).

³⁶ The title of the discussion of *The Digital Canon?!* working group members (Josephine Bosma, Martijn van Boven, Sandra Fauconnier, Jan Robert Leegte, Gaby Wijers) led by Annet Dekker (Amsterdam, 2018). The whole transcription: <https://www.digitalcanon.nl/#page57>.

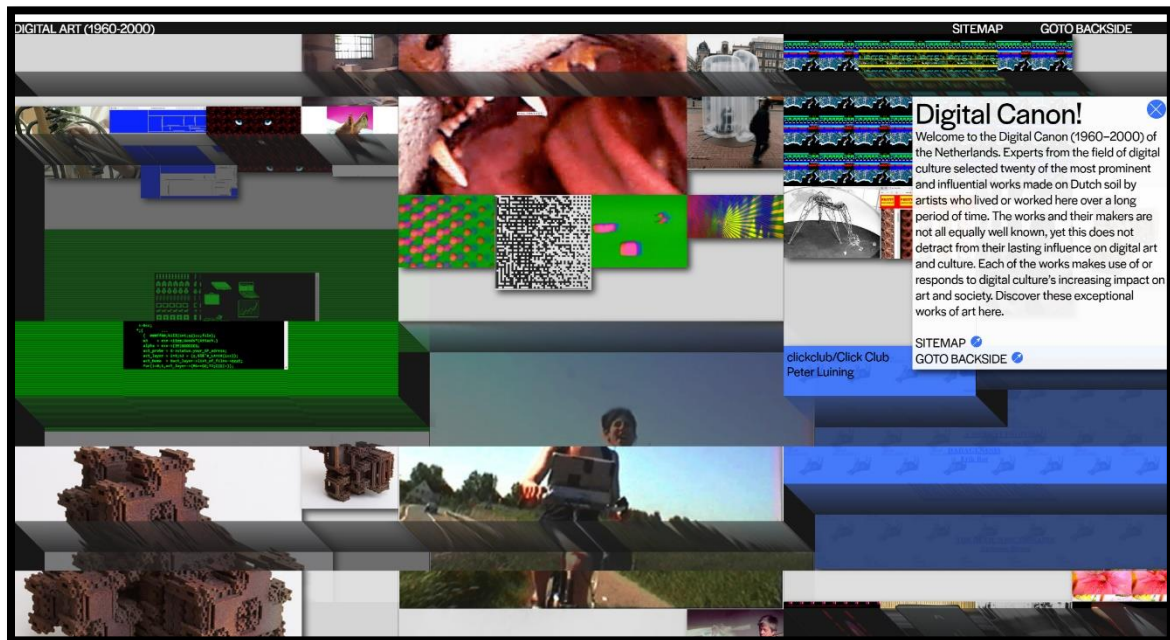


Figure 12. A screenshot from The Digital Canon website.

According to the authors of *The Digital Canon*, “the works and their makers are not all equally well-known, nevertheless this does not detract from their lasting influence on digital art and culture. Each of the works makes use of or responds to digital culture’s increasing impact on art and society” (“Canonization as an Activist Act” discussion, 2018).

On the one hand this project allows us to question the act of canon-formation itself: who selects the works, and why? On the other hand the question is whether a canon is a valuable tool to make such statements. LIMA’s criteria for addition of works to the canon were:

The work:

- 1) has artistic value (substantive depth, conceptual depth) within the field of visual arts
- 2) is artistically innovative (at the time)
- 3) is also relevant outside the domain of technology
- 4) is also relevant and interesting for foreign countries, not just for the Dutch (digital) art field
- 5) is unique and/or has a pioneering role (does not follow an existing type of aesthetics nor repeats artistic strategies that are already used by others in a similar way)

- 6) has a national/international pioneering role
- 7) is exemplary for the development of digital culture (in the Netherlands)
- 8) will be remembered: ‘that was very special’
- 9) has made a valuable contribution to the visual arts
- 10) belongs to the ‘technical’ avant-garde
- 11) is a link to older works or new works (by other artists, or within a maker’s oeuvre)
- 12) can be regarded as the beginning of a new technology in its time; the start of a new genre
- 13) visualizes a particular cultural, technological, physical or philosophical fact by its unique use of technology
- 14) falls under the broad definition of digital culture, as used by Creative Industries Fund NL
- 15) reveals the aesthetics of a technological phenomenon in image and sound. (LIMA n.p.)

Therefore the list of the most important characteristics of works which could enter a canon would be: ‘artistic value’, ‘innovative’, ‘relevant outside technology’, ‘interesting for foreign countries’, ‘unique’, ‘pioneering’, ‘exemplary’, ‘is a link to other works’, ‘regarded as a new genre’. Inspired by *The Digital Canon*, its list of criteria and the discussion around canon-formation as an activist act, I will now turn to Janet Staiger’s pivotal article *The Politics of Film Canons* (1985) as well as to findings from the interviews I conducted with experts in the VR field – Casper Sonnen (IDFA DocLab), Gabo Arora (VR artist) and prof. William Uricchio (MIT Open Documentary Lab) – to analyze whether a canon of VR documentaries already exists, and – if so – who is responsible for its creation.

ADAPTING JANET STAIGER’S *POLITICS OF FILM CANONS*

In her pivotal article “The Politics of Film Canons” (1985), Janet Staiger, a theoretician and historian of American film and television³⁷, lists three different ‘politics’ that come into play when a film canon is discussed: *The Politics of Admission* (proving that film qualifies as art), *The Politics of Selection* (selecting works that will later be examined), and *The Politics of the Academy* (pursuit of furthering knowledge in “appreciation of cinema”).

³⁷ Staiger has published on the Hollywood mode of production, the economic history and dynamics of the industry and its technology, post structural and postfeminist/queer approaches to authorial studies, the historical reception of cinema and television programs, and cultural issues involving gender, sexuality, and race/ethnicity (source: https://en.wikipedia.org/wiki/Janet_Staiger).

These three approaches, according to Staiger, relate on the one hand to an invaluable goal of putting some order into the enormous number of films that are made – for her, “grouping, classifying, and finding typicality are long-honored and traditional pursuits in the acquisition of knowledge” (Staiger 9) – and on the other hand, to her notion that canon formation is involved with the political sphere (hence the names of different factors).

Taking Staiger’s understanding of a film canon, I will now analyze her text through the lens of a possible VR documentary canon conception. I argue that such a canon would help to later build a typology of VR documentaries by providing ‘canonical’ examples.

The Politics of Admission

This politics, according to Staiger, was established already in the early writings about cinema, asserting that the moving picture – a newcomer to the cultural sphere – is actually a form of art. In this scope, the established criteria of aesthetic experience had to be expanded to adjust for a new medium. And so, if a film could bring new styles by either incorporating or excluding previous artistic forms, it could thus be compared and included in the canon of art. Later, when cinema achieved the ability to articulate its own aesthetic, it could start a new category of art, creating medium-specific canons.

My research question, following Janet Staiger’s suggestion that “escaping from canon formation will be difficult to achieve” (4), is whether now is the time to ‘admit’ VR to the canon of arts? Would it enrich the field of contemporary art? Or, furthermore, does a canon of VR documentaries already exist, or are there already initiatives towards a canonization of VR documentaries?

Inspired by Staiger’s article, I asked my interviewees the above questions. Very interestingly, unlike other questions, on which my interviewees agreed with each other to a great extent (for example, in terms of defining the VR documentary and the general need for a categorization of VR works), here their answers were completely different. Although all my respondents admitted we needed canons, and that a canon is beginning

to emerge— moreover, they all recalled *Notes on Blindness* (2016) as “canonical”; they gave three different³⁸ answers to the question of who is actually responsible for canon-creation.

Casper Sonnen claims that a canon of broad interactive and digital nonfiction works (including VR) already exists – however, for VR specifically, there is only a body of work that we could see as the early landmark pieces, early classics and a few “timeless masterpieces”³⁹ – not yet a canon. To support this line of argumentation, both Sonnen and Uricchio mentioned in their interviews that IDFA DocLab created their own “100 top works” which are regarded as canonical, however they contained a whole spectrum of works, including also all interactive forms such as VR, robots, and all forms of non-linear documentaries. According to them, it is hard to clearly isolate VR as a different, purely distinguished technological medium, because the headsets, for example, for AR or XR are too similar today.

Unsurprisingly, professor William Uricchio, the head of the MIT Documentary Lab, which created “Docubase” and “Moments of Innovation” (see above), admitted that there was certainly a rationale for organizing, grouping, and classifying typical projects or new-media qualities. However, when asked whether a ‘canon’ of VR documentaries already existed, he recalled several projects (including *Notes on Blindness* (2016)) as “reference points”, not “canonical”, adding that they carried a status of exemplary projects that set values for future VR creators. Importantly, Uricchio added that ‘VR moments’⁴⁰ – often referred to in the discussion of canon-formation – are mostly connected to technological progress, not to the works itself that could change the course of field development. According to Uricchio, there was a boom for VR in the early 90s, and now it is booming again, as more and more money is invested in the industry. VR technology is therefore changing dramatically and rapidly.

³⁸ Especially for the “Politics of Selection” part.

³⁹ He listed *Notes on Blindness* (2016) and the entire body of work of Nonny de la Peña, which he called “foundational”. From 360 videos Sonnen mentioned *Strangers with Patrick Watson* (2014).

⁴⁰ In the sense of the important moments that changed the course of the development of the medium.

From another angle, asked if his *Clouds Over Sidra* might be regarded as “canonical”, Gabo Arora answered:

There is something very special about *Clouds Over Sidra* because I think it created something completely new with the form and created new sensations, feelings and possibilities. But when you asked about the canonical works, I immediately thought about *Notes On Blindness* by Peter Middleton and James Spinney – in its own way it was to me canonical. Because to me, it experiments with the form in very unexpected ways. (Arora 2019)

This statement clearly demonstrates that Arora agrees that, yes, there are canonical VR documentaries which provide new ways of experiencing the art. For Arora, additionally, there is this dialectic between documentary storytelling and technology, which goes in line with the Uricchio’s argument. New technology “gives wonder” (Arora) and thus the first works that use it are more prone to be regarded as “canonical” – simply because they show something new. Later works are inevitably “going to be slightly building on or imitative of what that means” (Arora).

Therefore, to summarize *the politics of admission* in the lens of VR, an early canon does seem to exist, but it is mostly based on technological novelties in the general new media spectrum, not as a separate cell. Notably, when asked about a “canonical VR documentary”, all respondents mentioned the *Notes on Blindness* VR experience (2016) as such.

What I also found thought-provoking was the varied terminology my respondents used during the interviews when describing their views on canonization. For example, to illustrate a canonical work, Sonnen used the word “timeless”, Arora “unexpected”, Uricchio “reference point” or “a landmark”. So, perhaps, if one were to publish an official canon of VR documentaries, they could use many criteria or qualities (such as the aforementioned) as potential admission.

The Politics of Selection

This kind of politics is much more connected to the core of the canon-creation endeavor. While it is utterly impossible to examine every work that is made, canon-creators have to first bring some works to the center of attention, others to the margins. The intention

is, of course, to select the works that are strikingly unique or superior. According to Staiger, at least three rationales for the selection exist: efficiency, a worthwhile goal of putting order, and evaluation.

These three motivations create a canon of “exemplaries” (Staiger 1985) – works that later serve to make a typology or grouping. However, for reliable practice, the selection should not be based on the ‘typicality’ of works, but – after evaluation – on their uniqueness and general enrichment of the artistic field. And the ‘evaluative selection’, in line with Staiger’s argumentation, is involved in politics the most.

These politics, in a nutshell, are about having the authority, influence, responsibility and control over the canon-creation. As canon-formation establishes tastes and preferences and provides recognition (and a kind of special treatment) to some works and artists – it is a great position to fight for. In order to analyze who is responsible for setting up value criteria for the choice of works, I asked my interviewees about their views on this topic, adding a particular question about who they think is the primary agent in the canon-formation landscape.

When asked if IDFA – which selects works to be later exhibited during the festival – has institutional evaluative authority to validate the established tastes and preferences (and hence plays a leading role in canon-formation), Sonnen answered that although he agrees that film festivals including IDFA and other institutions are partially responsible for canon creation, their influence “shouldn’t be overstated”. Sonnen, as a representative of an institution, stressed that “as much as he would love to take the credit” for canon-creation, he is sure that it should be given to the creators. He recalled two very interesting metaphors to support his argument. First, he said, claiming that the institutions are responsible for canon-creation, would be like stating that only because Lenin loved cinema did we get Dziga Vertov – and yet, clearly, we should not take away any artistic quality from Dziga Vertov and give Lenin the credit instead. Later Sonnen hypothesized that Caravaggio was a great artist only because of the Pope he painted, or that we should give the credit to the church because the painting was hung on its walls. I interpret Sonnen’s claim as his acknowledgement that an institution provides an insight and access to history and importance of specific disciplines and movements, exposing works that

have better chances of later being loved by the public. Yet Sonnen emphasizes the contribution of artists, who – according to him – play a principal role in the canon-creation process.

Nevertheless, as Sonnen stressed in the later part of the interview, artists alone cannot create a canon themselves. A lot depends on the possibilities to take part in festivals, but also, for instance, on the agreements with tech companies who will support the project – specific cameras, or specific headsets. What festivals bring, according to Sonnen, “is a level of independency, and a level of flexibility, a level of focus on art, and a dedicated, guaranteed audience that really looks at your work”.

The artist Gabo Arora, on the other hand, claims that it is actually the institutions who play a major role in this process. For him, film festivals (where VR documentaries have recently been exhibited), shape and impose a framework of limits and conventions for individual filmmakers, who later need to accept them. To quote Arora,

festivals obviously have the strongest impact I would say, and their sort of ‘cohort of curators’, who are the real tastemakers and supporters of working with artists [...] say they are motivated by privileging new voices and diversity. I think that’s a sign of the times but also it’s a sign of very, very progressive cultural curators, that without them and without festivals there would be no buzzers. (Arora 2019)

During the interview, Gabo Arora even admitted that his *Clouds Over Sidra*, which is repeatedly cited both in the academic and journalistic context and regarded as a point of reference for many, “would not exist” without Sundance or The World Economic Forum in Davos.⁴¹ That is why, reinforcing his argument, he affirms that he always wants his projects to be shown during the biggest, most recognized and respected festivals, because it helps him to create new projects (thanks to the recognition, interest and financial possibilities).

Prof. Uricchio, congruently to what Arora stated, albeit providing more explicit substance, argues that the people who take part in canon-formation are often “the people with money, or people with money and fame behind them” (2019). To prove his point,

⁴¹ In 2015, the VR documentary *Clouds Over Sidra* by Gabo Arora was ‘screened’ in Davos.

Uricchio mentioned numerous under-exposed VR projects, which often do not even have the possibility to ‘travel’ to take part in the biggest world-known festivals. Consequently, they will probably never be a significant part of the canon. Building up on his claim that the process of canonization produces an understanding of the complexity of cooperative networks through which art happens, Uricchio reintroduced Howard Becker’s ideas from the book *Art Worlds* (2008) in which – in Uricchio’s words – “Becker asks: what makes art, art?”. Becker writes:

A canonical art work would be one for whose doing all the materials, instruments, and facilities have been prepared, a work for whose doing every cooperating person-performers, providers of supplies, support personnel of all kinds, and especially audiences – has been trained [...] Imagine, too, a canonical artist, fully prepared to produce, and fully capable of producing the canonical art work. Such an artist would be fully integrated into the existing art world. (Becker 228, 229)

Uricchio (after Becker) argues that if aesthetic systems justify dividing art works into those worthy of display or performance and those which are not, that is mostly influenced by the institutions and organizations in which such displays and performances occur. Additionally, interpreting what Uricchio said, and Becker’s notions, the reasons why a piece of art is of value has to do with micro-elements such as how an artist gets his materials, who prepares (or in the VR documentaries sense – post-produces) these materials etc. There is a hierarchy in every element that counts for the final work. Moreover, according to Becker, social structures are important as well, as the canon “reflects the power”.

Taking into account everything that my respondents argued during the interviews, Staiger’s *Politics of Selection* clearly shows how the economic factor is also associated with canon-formation. To summarize, if a work is part of a canon, it will have its good place in the market, and a canon surely adds value to the work and the artist, it being a recognition of importance. But this political result of canons may also cause an economic repression of optional-making practices: nonstandard artworks no doubt have difficulty going through institutions or other controllers of distribution and exhibition systems.

The Politics of Academy

Canons affect not only the filmmaking agenda but academic investigations as well. Staiger's third *politics*, which is the closest to the aim of this thesis, is connected with the work of critical analysis, interpretation and application of reasoning to existing canons and processes of canon-creation. For Staiger, re-reading canonized works to make "new names" and "new methodologies" ratifies the choices. As she writes when describing *The Politics of Academy*,

revising criteria so as to include marginal works, criticizing present canonical works, constructing a radical other canon, or destroying canon formation itself – pose various theoretical and practical difficulties. (Staiger 18)

The history of art has proven that the canon surely has fundamental structures of power endemic to it, but that it is also quite flexible. Remediating exclusions, altering its narrative of stylistic progression, or admitting new forms of art (especially digital and VR nowadays), are one of many academic responsibilities regarding canon creation. This notion is strongly connected to the recognition that the existing canons of contemporary art are challenged both by the emergence of new media and by interdisciplinary approaches. And in that respect, far-reaching discussions, creation of new or counter-canons, and the critique and questioning of specific canonical frameworks are crucial. Thus, when considering the aforementioned conceptions, one cannot ignore the role of academy, thanks to which we can affirm the section judgements.

A canon, according to Staiger, should provoke multidisciplinary discussions, raising dialogues about who selects works and why. And when a canon is broadly accepted, it must be intriguing and vital to those who work in the field, creating new valuable meanings, and serve as a starting point for activating the fields of academia, creation and distribution.

FROM 'OBJECT' TO 'PROCESS'

On the occasion of launching the official website of the *Digital Canon!* (see the 'Zooming in: From typology to canon' section) the authors, in collaboration with the LIMA organization, published a few articles about digital art canonization. One of them,

Manifesto for Canonization in a Flat World by Axelle Van Wynsberghe (2018) sheds new light on one of the topics of this thesis. And even though the manifesto is mostly focused on digital art, I believe that VR documentaries might also be regarded in the same scope, as they are both based on different principles of collection, preservation, exhibition, and contextualization, rather than on that of the traditional art world.

The VR art field is put in conversation with some of the discourses and concepts of so-called ‘institutional critique’ (Staiger, Becker, Nichols). It should not be surprising, since digital art and VR artists are subsequently invited to present their works in more traditional exhibition spaces and institutions. According to Van Wynsberghe,

taking digital art’s tension with traditional art discourse and the contemporary art sphere into consideration, it is clear that artists should have reservations about the degree to which art institutions will adequately historicize and canonize their work (n.p.)

Nevertheless, the process of canonization of digital and VR art is ongoing. It is not a barrier to the field’s desire to be appropriately contextualized, exhibited and historicized, but rather a process by which its rich legacy can be made accessible to new audiences. Assuming that a canon is “always in the making”, and part of some larger – not strictly institutional – field, may be tactically beneficial to the progress of general understanding within VR art professionals and academics. Also, we may perceive the canon as a toolbox, both for making typologies and for the historization and preservation of art (including VR projects). Yet we must always leave an option for the contents of this toolbox to be negotiated, contested, and altered throughout time. The collective infrastructure of institution, academy and the creative world (which, according to Sonnen, is increasingly fragmented) might work better. Therefore, the process of canonization shouldn’t lead to an “end product”, which dominates the rest of an art medium’s history – rather, it is an invitation to acknowledge and discuss particular artists and works within the frame of a particular media discourse, and an inherently fluctuating space which enables the creation of typologies.

CHAPTER TWO: CONCLUSIONS

Four main claims were addressed in this chapter:

1. The process of establishing media environments and connecting different institutional or discursive contexts cannot be achieved without the direct pursuit of a clear classification of works. The creation of typologies for documentary film provides a structural framework within which almost all documentaries have a place, and therefore aids all the actors engaged in the field (creators, audience, academia, institutions) to find common ground for dialogue and debate.

Bill Nichols' typology of modes of film documentary representation is a good example of this claim, as it operates not only within academic discourse, but in institutional contexts as well. For example, Caspar Sonnen agreed that Nichols' approach helps with identifying projects and curating the IDFA DocLab festival.

2. To prove the validity of the grouping, a wide selection of exemplary works ought to be made. The canon of these selected works on the one hand provides splendor and status, but on the other hand, a canon itself can be regarded as a political power-structure, a criterion of authority. Therefore, critical discourse – such as Janet Staiger's "The Politics of Film Canons" – has to emerge around the concept of the canon and the agents involved in its formation.

Indeed, these kinds of judgements, selections are not separated from ideological agendas, professional ambitions or financial opportunities. The selection of works which can enter a canon requires thorough collective negotiations of many agents (institutions, critics, academia) which are marked by conflicting value systems. The questions are, following Staiger:

What politics do we support? If we wish to eliminate a politics of power, how to do that? And what does it mean in terms of those films we choose to study and how we study them? (Staiger 19)

3. Although certain accepted standards, agreed-upon rules and cultural practices that guide the selection should exist, the process of canonization itself should not be a static procedure with an aim of a fixed final product. The employed approach should support a number of intriguing questions about styles, genres, movements and being open to rethinking ideas and renegotiating judgements. Hence, a canon

as a 'toolbox' not only shows the works that are chosen, analyzed and discussed, but also provides a crucial basis for coming up with new forms, modes and styles.

4. Lastly, acknowledging Staiger's notion of *The Politics of Admission*, since VR documentaries cannot exist outside the field of art (they are created by artists, criticized by art critics and exhibited by art curators), they should be considered within and consist a part of artistic typologies and canonizations.

Chapter Three: VR documentaries and the modes of representation

Expanding human expressivity into new formats and genres is culturally valuable but difficult work. We are collectively engaged in making necessary mistakes, creating examples of what works and what doesn't work for one another to build on. The technical adventurism and grubby glamor of working in emerging technologies can make it hard to figure out what is good or bad from what is just new.

Janet H. Murray (2016)

INTRODUCTION: RE-ASSESSING NICHOLS'S DOCUMENTARY MODES

The integration of new technologies into the documentary field calls for the development of new frames of analysis. As argued in the previous part, in order to achieve a deeper understanding of VR documentaries, it is necessary to form typologies and canonizations (as for any earlier genre), while remaining attentive to their underlying political dimension. My aim in this chapter is to revisit Bill Nichols' influential taxonomical framework of seven documentary modes of representation, in order to suggest how it could be adapted and extended to acknowledge the specificities of VR documentary practices.

Numerous issues may be raised regarding the classification of VR documentaries. Like any artistic medium, VR docs can be interpreted using a myriad possible methods, and no single approach is capable of providing an all-encapsulating perspective for their analysis – my own suggestion in the pages below, of course, notwithstanding. Other notable academic attempts at such classification include “A Mediography Of Virtual Reality NonFiction: Insights And Future Directions” (Rose et al. 2018)⁴², a recent project focused on thematic mapping of VR docs (fig. 13). Mel Slater's aforementioned classification of

⁴² The authors are the collaboration (including, for example, Mandy Rose, whose articles I have used for this thesis) for the research project “Virtual Realities – Immersive Documentary Encounters” that seeks to examine the production and user experience of non-fiction VR content. Their website: <http://vrdocumentaryencounters.co.uk/>.

updated typological framework designed to address the complex particularities of VR docs. I argue that a renewed application of Nichols' typology offers a valuable insight into the strategies and conventions through which VR doc creators may frame their depiction of reality. It additionally provides an infrastructure for contemplating how VR documentaries relate to traditional, cinematic ones.

As Nichols argues in his book *Blurred Boundaries : Questions of Meaning in Contemporary Culture*, his generic divisions are to be taken as "flexible rather than rigid" (1994). He suggests that he is clearly aware of the dangers of taxonomic severity. When narratives are employed to represent reality, Nichols writes, the definite separations we draw between fiction and fact no longer hold. Moreover, in *Introduction to Documentary* (2017) he adds:

The desire to come up with different ways of representing the world contributes to the formation of each mode, as does a changing set of circumstances. New modes arise partly in response to perceived deficiencies in previous ones, but the perception of deficiency comes about partly from a sense of what it takes to represent the historical world from a particular perspective at a given moment in time. (Nichols 115)

I believe that this desire to produce different ways of representation arises with the transition of documentary-making into VR. An update of Nichols' framework of documentary modes, made applicable to the analysis of VR works, could enrich our conceptualization of what documentaries can be. Such an adaptation should aim to capture VR docs' new representational aspects and strategies, and underscore their adapted arsenal of experiential opportunities, perspectives on reality, and ways to absorb the audience in the story.

With this aim in mind, I will attempt to suggest a potential typology by discussing the adaptation of each of Nichols' seven modes of representation – while comparing the canonical cinematic documentaries that emblemize these modes with chosen VR documentaries. My underlying claim in the following pages is that, while VR documentaries can be said to adopt four of Nichols' seven modes – though in a revised manner – the medium calls for in-depth reconceptualization of three of his modes. I will therefore suggest to update Nichols "expository", "observatory" and "interactive" modes

into the “interactive exhibiting”, “interactive immersive witnessing” of VR docs and “responsive” and “social” modes of interaction.

To pave the way towards extending Nichols’ framework with these three adapted modes, I will first address how the documentary rationales of four of his modes – “poetic”, “participatory”, “reflexive” and “performative” – continue to apply to VR docs, with some significant nuanced updates. Importantly, what I would like to stress before my analysis is that VR documentaries – just like film documentaries – usually represent more than one mode (see the “Mixing” section in Chapter Two). However, bearing in mind that modes commonly augment each other or overlap within one VR documentary, the examples of VR documentaries that I have chosen to examine will serve as illustrations of one mode.

THE POETIC MODE

This mode of representation has the most lyrical impression. Although poetic documentaries draw on historical events for their material (real situations, real people), they transform this material in distinctive ways, emphasizing visual and experimental connotations and expressions. The poetic mode opens a possibility of alternative forms of knowledge to the straightforward transfer of information, the pursuit of a particular point of view or the presentation of reasoned suggestions about problems in need of solution. This mode stresses the mood, tone and affect much more than displaying facts. Usually, according to Nichols, the rhetorical element in the poetic mode is less important than the expressive quality of the documentary (117). The spectators therefore learn by affect, gaining a sense of what it feels like to see or experience the world in a particular, poetic way.

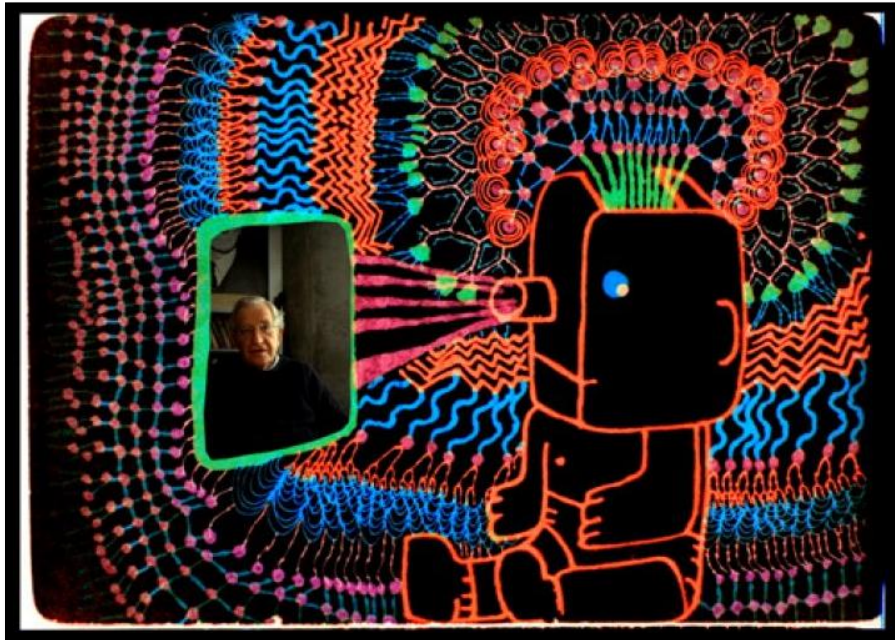


Figure 14. A screenshot from the poetic documentary *Is the Man Who Is Tall Happy? An Animated Conversation with Noam Chomsky* (2013) by Michel Gondry.

On the left we can see the indexical footage of Noam Chomsky, who is interviewed by the director⁴³, surrounded however by expressive animations which metaphorically interpret the conversation.

As I show with the example of cinematic animentry⁴⁴ above, when using the poetic mode of representation, filmmakers adopt abstract patterns of form or color, for example adding animated figures that – like many VR documentaries – have minimal relation to a documentary tradition of representing the historical world rather than a world of the artist’s imagination. By mixing autobiographical, performative, historical footage with animations or other artistic forms of expression, the filmmakers achieve the goal of poetic representation of the reality. As Nichols writes:

The historical footage, freeze-frames, slow motion, tinted images, selective moments of color, occasional titles to identify time and place, voices that recite diary entries, and haunting music build a tone and mood far more than they explain the war or describe its course of action. (121)

⁴³ I recommend watching the trailer: <https://www.youtube.com/watch?v=zex7yxN4GW0>

⁴⁴ Animentry – animated documentary.

Thus the filmmaker's engagement with the form is very powerful, which leads to the fact that the poetic mode – as the representational genres like 'magical realism' – emphasizes the emotional rather than factual 'reality' of the given subject matter.

At IDFA DocLab 2018, visitors had a chance to experience⁴⁵ the black-and-white animated VR documentary *Accused no. 2: Walter Sisulu*⁴⁶ (2018) by Nicolas Champeaux and Gilles Porte, which reconstructs the court trail⁴⁷ of Walter Max Ulyate Sisulu (1912-2003) – a South African anti-apartheid activist and member of the African National Congress, who was jailed at Robben Island, where he served more than 25 years in prison.

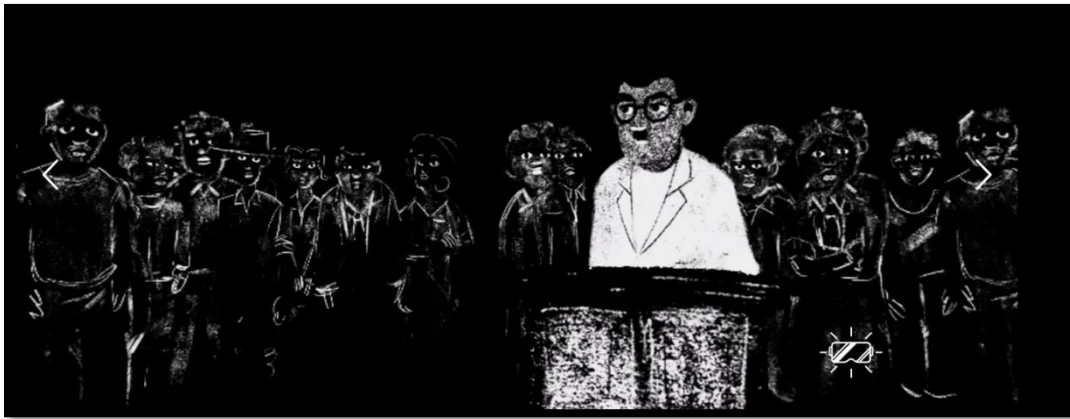


Figure 15. A screenshot from the VR documentary *Accused no. 2: Walter Sisulu* (2018).

The spectator of this VR documentary is placed in 1964 in Pretoria in the middle of the courtroom, opposite to Walter Sisulu and beneath the colossal figure of the judge, silently observing Sisulu's testimony or flashbacks to the events he describes. The spectator can move his head in any direction, penetrating the courtroom's public which is also animated with abstract charcoal drawings. As there are no images from the trial of the leading African National Congress leaders who fought for the rights of blacks and against apartheid, the VR creators decided to use audio recordings of the trial (that were recently

⁴⁵ I had a chance to experience this VR documentary as well, thus the comments are based on personal reflections.

⁴⁶ I recommend watching the trailer: <https://vimeo.com/306155408>.

⁴⁷ In the Rivonia Trial of 1963 and 1964 in South Africa, 10 ANC anti-apartheid activists stood trial, among them Nelson Mandela. Although all the defendants were sentenced to life imprisonment, the trial triggered a process that would ultimately lead to the abolition of apartheid.

restored and digitized) to establish an indexical relation to the historical situation and draw the images which build the mood with regard to their original proximity.

In *Accused no. 2: Walter Sisulu*, the reconstruction of some key moments of the infamous cross-examination of Walter Sisulu – who patiently resists terrorist accusations against him and Nelson Mandela – the spectators truly feel what Sisulu is going through, and learn about this historical act. In this way, this VR documentary – similarly to cinematic poetic documentaries – encourages viewers to engage with difficult issues in an aesthetic and expressive way.

Therefore, although VR changes the experience – fostering the immersive and, thus, affective engagement with the animated visual content - I claim that the framework of Bill Nichols' mode of poetic representation still stands for the VR documentaries and *Accused no. 2: Walter Sisulu* is just one example for this argument, among many others (for example *Zero Days VR* (2018) by Scatter⁴⁸ or *Notes on Blindness VR* (2016) by Middleton and Spinney).

THE PARTICIPATORY MODE

According to Nichols, in the participatory mode,

the filmmaker steps out from behind the cloak of voice-over commentary, steps away from poetic meditation, steps down from a fly-on-the-wall perch, and becomes a social actor (almost) like any other (almost like any other because the filmmaker retains the camera, and with it a degree of potential power and control over events.) (140)

Thus this mode emphasizes the interaction between filmmaker and subject of the film, additionally embracing a feeling that the spectator is a participant in the film as well. The most common form of such interaction is interview, however, participatory documentaries can also take place by means of other forms of direct involvement (like provocations or conversations) – either on or off camera, in the flow of information between film crew, portrayed persons and film viewer. The participatory documentary gives the spectators a sense of what it is like for the filmmaker to be in a given situation

⁴⁸ This VR documentary is available at: <https://www.with.in/watch/zero-days-vr>.

and how that situation alters as a result. The viewers, therefore, expect to witness the historical world as represented by someone who actively engages with others rather than ‘seemingly neutrally’ observing or poetically reconfiguring what others say and do. In the participatory documentary, however, the spectator who is being guided by the filmmaker’s expressions and interpretations in the film is significantly impacted by the filmmaker’s perspective – and thus less objective.



Figure 16. A screenshot from *Tarnation* (2003) by Jonathan Caouette.

In *Tarnation* (2003) Jonathan Caouette (on the right) invokes powerful and disturbing memories of his traumatized youth, to understand both how his mother and himself had become unstable. His film utilizes home videos and archival footage and his personal interactions to perform a subjective self-examination.

In the VR documentary *700 Sharks: Into The Pack* (2018),⁴⁹ directed by Luc Marescot – thanks to the VR headset – spectators are placed at the south end of the Fakarava Atoll (a 35-mile-long rectangle of coral in French Polynesia) and follow the steps of the filmmakers (Laurent Ballesta and his team), who dive into the heart of a school of sharks to analyze their behavior in this part of the ocean.

⁴⁹ The whole film (7:13) is available to watch on the Within platform: <https://www.with.in/watch/700-sharks-into-the-pack>.



Figure 17. A screenshot from the VR documentary 700 Sharks: Into The Pack (2018).

The filmmakers turn to the spectators directly, which strengthens the feeling of being at the scene and taking part in their adventure.



Figure 18. A screenshot from the VR documentary 700 Sharks: Into The Pack (2018), in which we can see the filmmaker with his camera.

Spectators of this VR documentary follow the team of filmmakers and biologists, who for 21 weeks observed and documented the mysterious spectacle of underwater life. Mysterious, as they later discovered that the sharks hunt in packs (a bit like wolves) but less cooperatively. As Laurent Ballesta writes in his article in *National Geographic Magazine* (2018), the team uncovered that

a single shark is too clumsy to catch even a somnolent grouper. A pack of them is more likely to flush the fish from its hiding place and encircle it. Then they tear it apart. Seen live, the attack is a frenzy that explodes before us. Only later, thanks to a special camera operated by Yanick Gentil that captures a thousand images a second, are we able to watch the sharks in slow motion and appreciate their efficiency and precision. (Ballesta n.p.)

As demonstrated, the theme and rhetorical purpose differ between this case and the cinematic documentary analyzed above: *Tarnation* has a clear activist perspective, whereas here, the VR creators imply eco-awareness and the visual logic of spectacle which explains why the participatory approach was chosen.

Diving with the team (thanks to a VR headset) at night gives an impression of participating in the experience. Observing the team and cameramen, who are being approached by sharks, seeing how sharks react to the slightest movement of lights or when they attack other fish with their jaws and shaking them violently which is mixed with face-to-face comments from the participants of this experience intensifies the participatory mode of this project. Furthermore, as Ballesta wrote in the aforementioned quote, in *700 Sharks: Into The Pack*, the creators decided to use the effect of slow-motion to capture the “bullet time” video sequence of sharks descending on a grouper at Fakarava Atoll. This visual technique allows events to be slowed down while the camera moves at normal speed.

One could say that the participatory mode is used in every VR documentary, as the medium gives a sense of being on the spot or an illusion of interaction. However, following Nichols, this mode is more about seeing the interaction of the filmmaker with the subject (as in the example of *700 Sharks: Into The Pack*). It offers insights into people or situations from what they convey when engaged by the filmmaker, who strongly invests to encounter with the documentary’s subjects in order to present a historical

perspective and turn themselves into a reflector figure (Barthes) to afford the viewer's identification. And thus, even if VR and cinematic application of the mode makes the experience more immersed and interactive (the VR spectator is able to move around and look in different directions) Nichols' participatory mode, as I argue here, can also be applicable to the VR documentary.

THE REFLEXIVE MODE

The next documentary sub-genre in Nichols' typology makes the very problems of representation part of its subject matter. In reflexive documentaries, the filmmaker is speaking not only about the historical world, but also about the problems and issues of representing it. According to Nichols, reflexive films aim at increasing spectators' awareness of the problems of representing others as well as they "set out to convince us of the authenticity or truthfulness of representation itself" (128). This intensified level of reflection is the most self-conscious and self-questioning mode of representation.



Figure 19. A screenshot from the documentary *Far from Poland* (1984)⁵⁰ by American director Jill Godmilow.

The documentary was inspired by the strikes at the Gdansk Shipyard in August 1980. Godmilow's work pursued a reflection on the medium of documentary filming itself, and its limitations in representing political events and conflicts. In the screenshot we can see the director (on the left) commenting how the "Solidarity" movement is represented in various films (as in the two monitors we see in this photo) and the problems of representation when one has only partial access to the actual events⁵¹.

Importantly, reflexive documentaries tackle issues posed by realism as a style. They challenge the traditional conventions of realistic techniques of evidentiary or continuity editing, narrative structure or the crucial indexical bond between an indexical image and what it represents. Often, the accent on commentary is replaced by "metacommentary", as the viewers are put in a position of a double perspective: they can interpret both the presented world and the means with which the filmic version of the world has come into being. As Nichols writes, "instead of seeing through documentaries to the world beyond them, reflexive documentaries ask us to see documentary for what it is: a construct or representation." (125)

The VR documentary *Awavena* (premiered in 2018 at the Sundance Festival and exhibited at IDFA DocLab 2018⁵²) by the Australian artist Lynette Wallworth⁵³ can be analyzed through many modes at the same time (see Chapter Two, the "Mixing" section), but especially through the reflexive one. In this VR experience, at first the spectator is transported (through the VR headset) to the Yawanawá community in the Amazon. Hushahu, the first female shaman of the Yawanawá, guides the spectator through the community, showing scenes of the traditional way of life and the environment – the footage is shot in the 360 video technique.

⁵⁰ The film is available at: <https://artmuseum.pl/en/filmoteka/praca/godmilow-jill-far-from-poland>.

⁵¹ *Far from Poland* is an important supplement to the rich experimental film collection of the Museum of Modern Art in Warsaw, not only due to its historical significance, but also the modern-day urgency of questions concerning artists' political engagement and the potential of artistic representation of social conflicts.

⁵² Where I had a chance to experience this VR documentary, thus the analysis of this project is based on personal reflections.

⁵³ Lynette Wallworth is an Emmy award-winning artist/filmmaker who has consistently worked with emerging media technologies. Her immersive installations and films reflect connections between people and the natural world, and explore fragile human states of grace (from the official website: <http://www.awavenavr.com/>).



Figure 20. The screenshot shows Hushahu, the first woman shaman of the Awavena.

Hushahu is standing on a bridge, which according to Wallworth, is at once only a physical structure, but it is also a symbol of possibility – for the Awavena there had never been a woman shaman. No woman had been allowed to hold the position of a spiritual leader. But she had asked the old shaman of Awavena, Tata, if he would train her. And he agreed to risk his spiritual authority in order to break a taboo and allow for change.

However, the second part of the VR documentary aims to present the very secret power of the “medicines”⁵⁴ that the Yawanawá community in the Amazon takes to have the power to bring visions “that take you to places you’ve never visited in the physical world and see things beyond our eyes: love, harmony and respect for the nature”⁵⁵. That is why the video footage begins to mix with dreamlike abstract landscapes and fragments of forest in Awavena in rich and luminous colors. Thus, here, VR is used as “the medicine” to open a portal to another way of knowing, reflecting on how Yawanawá go through their process of ceremony and visions. As Wallworth wrote in the “Filmmaker’s

⁵⁴ The VR documentary does not name it directly, but we know that “the medicine” is “Ayahuasca” – an entheogenic brew made out of the *Banisteriopsis caapi* vine and other ingredients. The brew is used as a traditional spiritual medicine in ceremonies among the indigenous peoples of the Amazon basin and is known by a number of different names. *Banisteriopsis caapi* contains several alkaloids that act as monoamine oxidase inhibitors. Another common ingredient in ayahuasca is the shrub *Psychotria viridis* which contains the primary psychoactive, dimethyltryptamine (source: <https://en.wikipedia.org/wiki/Ayahuasca>).

⁵⁵ From the video “Sharing Technologies: The Making of AWAVENA with director Lynette Wallworth”: <https://vimeo.com/255638463>.

Statement” (2018)⁵⁶, *Awavena* was made at the invitation of, and in intimate collaboration between the Yawanawá people and the artist, blending various technologies to enable the community to share their story and visions. Thanks to this immersive VR documentary, and especially the second part with fluorescent illustrative models, the spectators can powerfully experience vivid and luminous visions.



Figure 21. Joel Yawanawa looks at dailies in the VR cardboard.

In her statement, Wallworth recalls the words of the Chief of the Yawanawa who had previously had a chance to experience VR technologies and he himself saw the compatibility with the visioning techniques that are at the heart of their society:

These glasses act like medicine, they carry you without your body to a place you have never been, colors and sounds are intensified, you meet the elders, you are given a message and then you return. (Tashka, Chief of the Yawanawa, from the “Filmmaker’s statement” n.p.)

That is why, one of the main scenes in the VR documentary shows Hushahu who is taking “the medicine” and thus the spectator is transported into her mind to experience her

⁵⁶ The full statement is available on Awavena’s official website: <http://www.awavenavr.com/about-the-filmmaker>.

visions, while she was on the path to open her mind to later become the community's spiritual leader.



Figure 22. A screenshot of the 'vision sequence' from the VR documentary *Awavena*.

This 'vision sequence' in *Awavena* has magical qualities due to the fluorescing species that the filming team was able to capture with special night cameras and scanners that captured 300 000 points of data per second to render a perfect ethereal version of the Yawanawa forest – all, according to the creators, biologically authentic.

Essentially, in *Awavena*, there are no interviews and no explanatory commentary about what we see. The spectators can take away no lessons about the Yawanawá community's life, but they can find themselves reflecting on what form of ethnographic of documentary representation could allow a genuine understanding of how the community lives. The film aims not primarily to provoke empathy for the Yawanawá people, but rather to reflect on their ways of shifting consciousness, changing the way they perceive the world and the decisions they make. Not to focus exclusively on Nichols, for Liani Maasdorp (2011) this critically engaged position of self-reflexivity (critical distance of the audience while engaging in the film and being entertained) is "ideal for watching a documentary film, since it allows the audience analytical freedom" (Maasdorp 209). For her, in the self-reflexive mode the viewer is not only aware of the content of the film, but also about the construction of its meaning – the way the documentary was formed and produced.

Thus this VR documentary meets the assumptions of Nichols' reflexive mode, as the spectators' awareness is raised by the explanations that appear when we think we are watching a documentary. Moreover, analogically to reflexive documentaries, there is in *Arwavena* an increased sense of formal abstraction or detachment, however, the voice of this work is characterized by radical doubt about the certainty of knowledge.

THE PERFORMATIVE MODE

Like all aforementioned modes of documentary representation, the performative mode raises questions about what counts as knowledge. By reenactments, poetic recitations, staged performances or series of declarations, performative documentaries aspire to demonstrate how embodied knowledge provides another way of understanding chosen situations or processes in a society, and thus invites the viewers to experience what it feels like to occupy a position of a subject of the film (Nichols 149). Performance here draws more heavily on the tradition of acting as a way to bring heightened emotional involvement to a situation or role. This type of documentary intensifies the rhetorical desire to be compelling and ties it less to a rationally persuasive goal than an affective one – “to have us feel or experience the world in a particular way as vividly as possible” (151), stressing the understanding and empathy more than straightforward knowledge acquisition.



Figure 23. Shooting the Notes on Blindness (2014) documentary.

The actor performs John Hull's feeling of going blind (see Chapter One, case study)

The performative documentary in the context of film freely mixes expressive techniques that give “texture” (Nichols) to fiction (Nichols lists point-of-view shots, musical scores, renderings of subjective states of mind, flashbacks, freeze-frames) with oratorical techniques for addressing social issues “that neither science nor reason can resolve.” (153) Usually, performative documentaries are limited by a personal point of view or a vision that may become private and dissociated from broader social perceptions. Another important feature of the performative mode is that the documentary has the potential to ‘transform’ both the filmmakers and viewers. As Fischer-Lichte writes:

Performance redefined two relationships of fundamental importance to hermeneutic as well as semiotic aesthetics: first, the relationship between subject and object, observer and observed, spectator and actor; second, the relationship between the materiality and the semioticity of the performance's elements. (Fischer-Lichte 17)

Thus, performative documentaries are less about the semiotics, and more about ‘making change’ in the world, ‘calling to action’ or understood as the filmmaker ‘changing themselves’ through performative practice.

“In 1973 my father witnessed the execution of a group of prisoners captured by the military regime in Chile⁵⁷, the Army that he was part of” – this is how the VR creator, Oscar Raby, begins the description of his VR documentary *Assent* (2013)⁵⁸ on its official website⁵⁹. This award-winning project about a tragic memory puts the spectator in Raby’s father’s footsteps, as he headed to the place where the massacre took place. This autobiographical immersive experience invites the spectator to witness (through the VR medium) that day through his father’s as well as Oscar Raby’s eyes, as he carries the transgenerational trauma himself.

⁵⁷ When the military took control of Chile in the coup of September 1973, it was the culmination of Cold War tensions, international political influence and internal conflict. For Army personnel, it was an event that marked their lives. In the immediate aftermath of the coup a ‘Caravan of Death’ roamed the country conducting executions of military detainees. This was a mechanism to install terror into the community and a way to demonstrate the force of the central authorities to military staff outside the capital, and, in making them complicit in the actions of the junta, to ensure their loyalty. Thirty years later, the repercussions of those events still play out daily – in courts, in politics, and in the homes of Chilean people. (source: <http://oscarraby.net/assent/>)

⁵⁸ I recommend watching the trailer: <https://vimeo.com/89607805>

⁵⁹ <http://oscarraby.net/assent/>

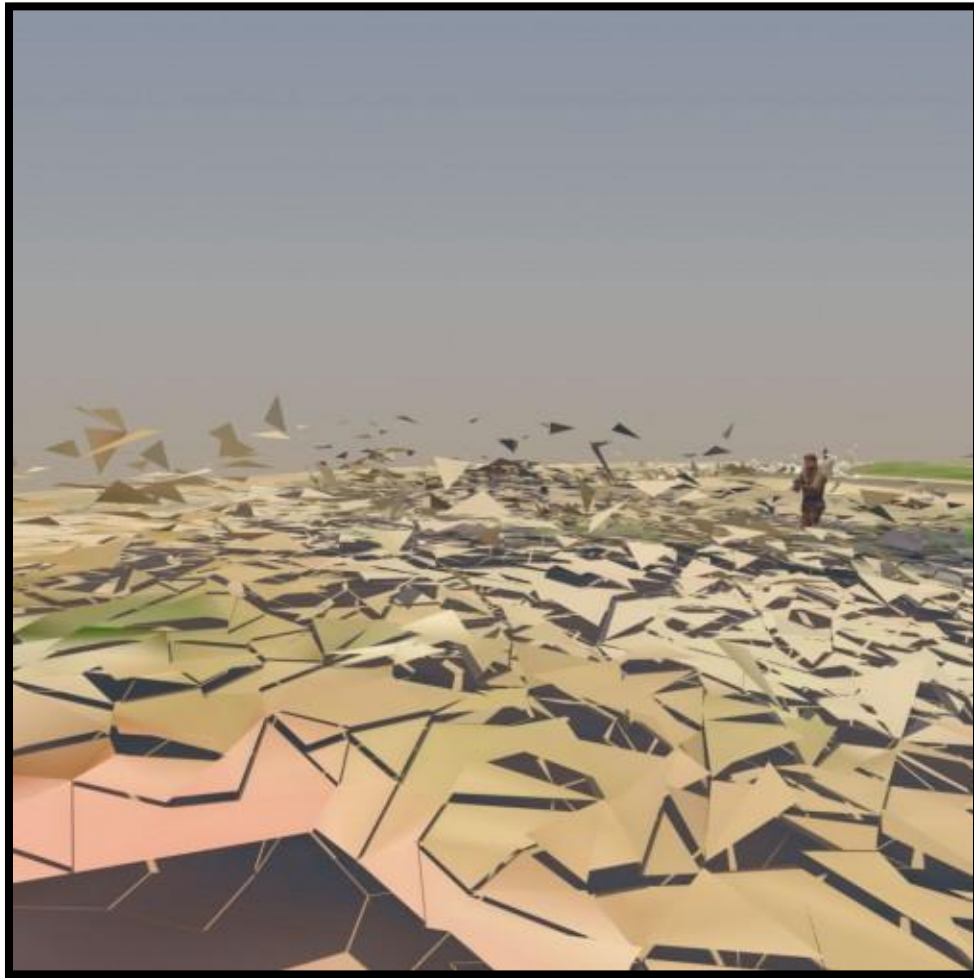


Figure 24. A screenshot from the VR documentary Assent (2013).

The visible polygons of the 3D environment create a form that is close to the imperfections of memory. Raby creates a unique method of approaching design for VR by mixing real references with objects that are around him, while incorporating the visual artifacts of the medium.

While the spectator follows Oscar Raby into a reproduction of the place where his father witnessed the execution (here the ‘participatory mode’ is also present) s/he can observe that each figure in the experience (the victims, the executioners and the narrator) is 3D modeled using the artist’s own body – as he was performing the historical event. Importantly for describing the performative mode of his VR documentary, Raby has an interdisciplinary background in multimedia design, but also in performance art practice. According to Deniz Tortum from MIT Open Documentary Lab, one of Raby’s performances, *Yo Y You*, “bears a great resemblance to *Assent*.” That is why, apart from

building and modeling landscapes in gaming mechanics, the artist performs real references with people and objects.

Raby uses the VR environment to rework memory and to provide a new perspective on that day for his father, to explore how violence can penetrate the memory and how it can be passed through generations and relationships, i.e. – according to performativity – self-change is important here (disassociating oneself from the memories of his father). His highly affective and personal storytelling activates the spectators, engaging them with his experience and enabling them to learn from the direct encounter. Resembling Nichols' 'performative' mode, *Assent* conveys a sense of what a situated, embodied knowledge of the world feels like. Relying on the filmmaker's own voice of testimony, the spectator engages to pursue the truth of what it feels like to experience it in a particular way.

THE EXPOSITORY MODE

In the following part of this chapter I will present three modes that I believe call for an in-depth reconceptualization. Nichols subsumes all interactivity and affordances of new media technologies (web applications, digital games, VR/AR etc.) in one mode ("interactive"), which is likely due to his perspective as primarily a film scholar. That is why I will break down this mode into four subcategories; first, I differentiate between interaction with the system (responsive) and with others (social), then I adapt two modes (expository and observational), which are particularly affected by interaction and thus I translate them into two more subcategories of the interactive mode. Therefore, my purpose in reviewing these modes of documentary addresses the argument that in order to find room for the variety in Nichols' typology, we need to amend it by expanding it beyond its formal limits set by the 'expository', 'observational' and 'interactive' mode of presentation.

However, first I will briefly introduce Nichols' characteristics of the three aforementioned modes to continue the argument and structure of this chapter.

The expository mode aims to 'expose' a problem by giving priority to the spoken word (commentary) to convey the film's perspective from a single, unifying source, which in the filmmakers' assumption will facilitate viewers' comprehension. It emphasizes a

“problem-solution” (Nichols) rhetorical structure and evidentiary editing⁶⁰, to focus on the responsibilities of speaking on behalf of others, placing them within the documentary’s logical and argumentative structure.



Figure 25. The official poster for SICKO (2007) by Michael Moore.

SICKO (2007) by Michael Moore is a portrait of the U.S. health care system, told from the vantage of ordinary people faced with extraordinary challenges in their quest for basic health coverage. Moore tells their stories, leading the audience to conclude that an alternative system is the only possible answer.

This mode addresses the viewer directly, with titles or voices that tell a story, propose a perspective, or advance an argument. According to Nichols, some expository films adopt

⁶⁰ Such editing may sacrifice spatial and temporal continuity to connect images from far-flung places, if they help advance the argument or support a proposal.

a voice-of-authority commentary (the speaker is heard as well as seen) and others utilize a voice-of-God commentary (the speaker is heard but never seen), a technique that Michel Chion calls “acousmatic sound”:

coming of Greek origin, discovered by Jerome Peignot and theorized by Pierre Schaeffer, *acosomatic* means “sounds one hears without seeing their originating cause”. Radio, phonograph, and telephone, all which transmit sounds without showing their emitter, are acousmatic media by definition. (Chion 71)

In expository documentaries, images play a supporting role – they illustrate, evoke or act in counterpoint to what is said. The commentary is typically presented as distinct from the images of the historical world that accompany it. Importantly, this mode emphasizes the impression of objectivity and a well-supported perspective. The professional commentator’s official tone, like the authoritative manner of news anchors and reporters, “strives to build a sense of credibility from qualities such as detachment or neutrality” (Nichols 124), leaving the film viewer little room for interpretation or questioning.

THE OBSERVATIONAL MODE

As the name suggests, this mode of representation emphasizes a direct engagement with the everyday life of subjects, but only as observed by an unobtrusive camera – thus a filmmaker does not interact with the subjects of the film but only observes them. And as although it affirms a sense of commitment with the immediate, intimate, and personal issues that occur in front of camera, the underlying act of ‘witnessing’ an event – but filming it as if absent, as if the filmmaker were simply a “fly on the wall” – invites debate as to how much of what we see would be the same if the camera were not there or how much would differ if the filmmaker’s presence were more readily acknowledged (137)⁶¹.

⁶¹ This objectivist conviction was nourished for instance by Andre Bazin’s idea of the ‘essential objectivity’ of the camera as the ‘photographic eye’.

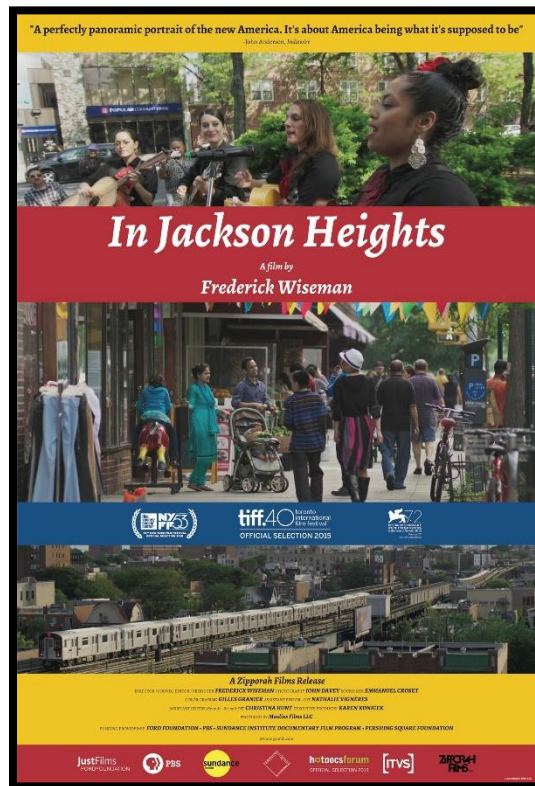


Figure 26. The official poster for *In Jackson Heights* (2015) by Frederick Wiseman.

This observational documentary is about the ethnically diverse community of Jackson Heights in Queens, New York. The film documents events of a Muslim school, a Jewish center, a meeting of gay and transgender people, a City Council office and the local headquarters of an activist organization dedicated to Latino and working-class people. *In Jackson Heights* contains no on-screen identification of camera subjects, no voice-over narration and no overt polemics.

Furthermore, the observational documentary's premise is to give the viewers an unmediated sense of what it is like to be in a given real situation. It's characterized by the prevalence of indirect address, the use of long takes and synchronous sound, and continuity editing over montage – all evoking a feeling of the 'present tense'. It also foregoes voice-over commentary, supplementary music or sound effects, inter-titles, historical reenactments, behavior repeated for the camera, and even interviews. All these features support the idea that the viewer's experience and judgment are seemingly independent, and there is no place for any kind of control or manipulation.

THE INTERACTIVE MODE

To begin the debate about this mode, it should be stressed that although Bill Nichols added this mode only in the last edition (2017) of *Introduction to documentary*, he also stated that this mode “is mentioned here but not discussed at length in this edition, given its relatively immature state” (23). Going beyond the film for the first time, Nichols shortly summarizes this mode as departed from the centuries-old tradition of the finished work and as embracing the interactive modalities which are made possible by digital technology. For Nichols, the possibility for viewers “to choose how they access it by interactive, digital means” (156) grants the viewer the potential to increase their knowledge of a given topic or issue.

While Nichols summarizes all interactive forms – which, apart from e.g. web docs or documentary video games, also applies to VR documentaries – within a new mode labeled ‘interactive’, a more nuanced rethinking of the category is necessary to make them productively applicable to VR content.

Perhaps slightly ironically, I find this mode of Nichols’ typology the most problematic in terms of its possibility to apply the characteristics to VR documentaries. On the one hand, the quality of ‘interactivity’ is practically written in the DNA of any digital work (they aim at co-creation of the content, shifting towards dialogue rather than only representation), including the VR documentary, therefore, perhaps it should not even be a separate mode, as ‘interactivity’ is a given in any project. Following Judith Aston and Sandra Gaudenzi, who are setting the field of interactive documentary studies (see Chapter One), i-docs should be seen as “a form of nonfiction narrative that uses action and choice, immersion and enacted perception as ways to construct the real, rather than to represent it” (2012).

Although the “action and choice” part of their definition obviously relates to VR documentaries, as even by putting the headset and deciding in which direction to look, moving the body (head-turning, reaching, and bending, and – within the tracking limitations – moving through the environment) the spectators ‘interact’ with the content.

On the other hand, looking closely at the definition of interactivity in Merrim-Webster dictionary (2019),

1: mutually or reciprocally active,

2: involving the actions or input of a user especially : of, relating to, or being a two-way electronic communication system (such as a telephone, cable television, or a computer) that involves a user's orders (as for information or merchandise) or responses (as to a poll) (n.p.)

I would argue that the user of a VR documentary cannot give orders, but rather only 'respond' to the content. Unlike other i-doc forms, such as web-based documentaries where the participants can follow multiple pathways or affect the changes in the content, in VR documentaries the interactions are fairly basic, grounded mainly in directed movements. Moreover, the narratives and virtual environments are pre-defined and already constructed, thus the possibility for the spectators to influence or change these worlds is minor (and so it is an option in the process of co-creation).

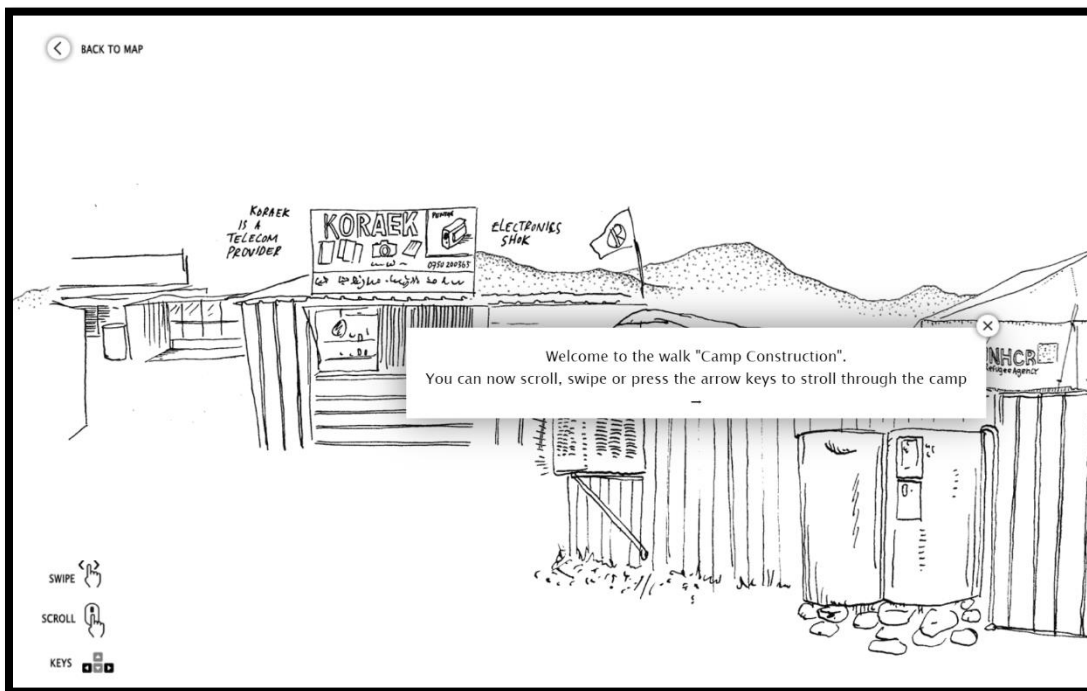


Figure 27. A screenshot from the i-doc *Refugee Republic* (2014) by Jan Rothuizen, Martijn van Tol, Dirk Jan Visser.

This interactive transmedia documentary (combination of film, drawings, photography, sound and text to create) about everyday life in the Domiz Camp in northern Iraq – a home to around 64 000 Syrian refugees, predominantly Kurds. Through an interactive

illustrated map, viewers learn about the camp residents: they can “scroll, swipe or press the arrow keys to stroll through the camp”, as the screenshot above shows.

From ‘interactive’ to ‘responsive’

This idea, of VR documentaries being more “responsive” than “interactive”, is connected with the concept of “response-as-if-real” (RAIR). According to researchers from University College London (2009),

“response as if real” provides an operational definition of the concept of presence, where response is considered at multiple levels: subjective, behavioral, and physiological (such as changes in heart rate). (Slater, Khanna, Mortensen, Yu 76)

Thus, I would claim that one way to analyze VR documentaries through an interactive mode – when spectators respond realistically within a virtual environment, when response is taken at every level “from low level physiological to high level emotional and behavioral responses” (Slater 13), more than actually interact with the content – I would suggest analyzing this mode into more “RAIR” lenses, than deeply interactive.

The notion of ‘procedural rhetoric’ coined by Ian Bogost (2007) would also be useful to incorporate here, while examining this mode. This concept explains how people learn through the authorship of rules and processes. The theory is based on game studies, however, I would argue that interactive, responsive VR documentaries can make strong claims about how the world works not only through visuals but through the processes the spectator embodies. Moreover, procedural rhetoric analyzes artistic projects based on their representations and interactions, rather than spoken or written word.

From ‘interactive’ to ‘social’

Nonetheless, I wouldn’t redefine Nichols’ ‘interactive mode’ in the VR documentary typology only in one way. Most VR experiences enable only individual immersion: the spectator puts the headset on and suddenly – disconnected from surroundings – dives into another universe. However, more and more often interactivity is present on the meta level – when the participants of VR can interact with one another while experiencing the

same project simultaneously. Can it be regarded as a “meta-interaction” over the documentary itself?



Figure 28. A photo from the Sundance Film Festival 2018.

According to Josefina Buschmann from the MIT Open Documentary Lab, there is a growing tendency towards “social VR experiences”, where participants can share their virtual journeys (2018) by participating in a common interactive VR experience at the same time. In this scope, each user is enclosed in a separate physical space, but they “meet” in the simulated VR environment where they can interact through their movements (which is also an extension of the performative mode in that sense).

The VR documentary *Zikr: A Sufi Revival* (2018)⁶² by Gabo Arora⁶³ immerses the spectators in a ritual practiced by a Sufi⁶⁴ community in Tunisia. According to Arora, understanding Sufism – by its nature – is experiential. During the interview he said:

⁶² I recommend watching the trailer: <https://vimeo.com/296594125>.

⁶³ That I had a chance to experience during IDFA DocLab 2018.

⁶⁴ Sufism is a branch of Islam that is often cast as esoteric. But in Tunisia, Sufism is deeply bound to national heritage and popular culture. In the aftermath of the Arab Spring, Tunisia is also looking to Sufism as a viable and more individualistic alternative to conservative Salafi movements. According to Arora, *Zikr* aims to shed light on a crucially misrepresented religion, revealing an Islamic practice of inclusion, art, joy and understanding (Arora 2019).

Zikr: A Sufi Revival was meant to me not to be an overt documentary. I wanted to make something that not only the Sufis in Tunisia but also the other groups will use my project in order to get their message out and enhance their recruitment. I wasn't trying to make my own interpretation there. I just build something that would capture the spirit I was feeling when I was with them. I took an unorthodox approach but I was looking at it from the classic lens of documentary. (Arora 2019)

In a mix between a 3D render of individual interviews recorded with members of the Tunisian group *Association de la Renaissance du Maalouf et du Chant Soufi de Sidi Bou Saïd*, and 360 videos of various ecstatic ritual and music ceremonies, 4 people can experience (thanks to VR headsets) Sufism by dancing and singing or playing the instruments that appear in their virtual hands by pressing the controllers.



Figure 29. A photo from the IDFA DocLab 2018.

At the *IDFA DocLab 2018* the VR documentary *Zikr: A Sufi Revival* was placed in a room furnished with Tunisian carpets, in which four participants stood in a circle. In the virtual space, they could visualize each other's hands connected through a digital "chain of prayer beads" that they could move, interacting with each other and exploring different ways of engaging with one another and virtual reality.

Zikr therefore offers an opportunity to explore this Islamic practice alongside members of the community as well as among the VR users.

According to Buschmann, the future of VR (not only in the documentary sense) “seems to be social” (2018). In her article, she mentions not only other narrative VR projects that are being developed, but also investments that are being made by social network platforms like Facebook (e.g. the “Facebook’s Spaces” project launched in 2017)⁶⁵, where Facebook encourages the users to “Be yourself in VR, use a Facebook photo to get started, or customize your appearance” or to “Express yourself, Go live from VR and your friends can follow along on Facebook in real-time”. In this context Facebook frames (and limits) social interaction rhetorically to interacting between the users in virtual rather than actual reality.

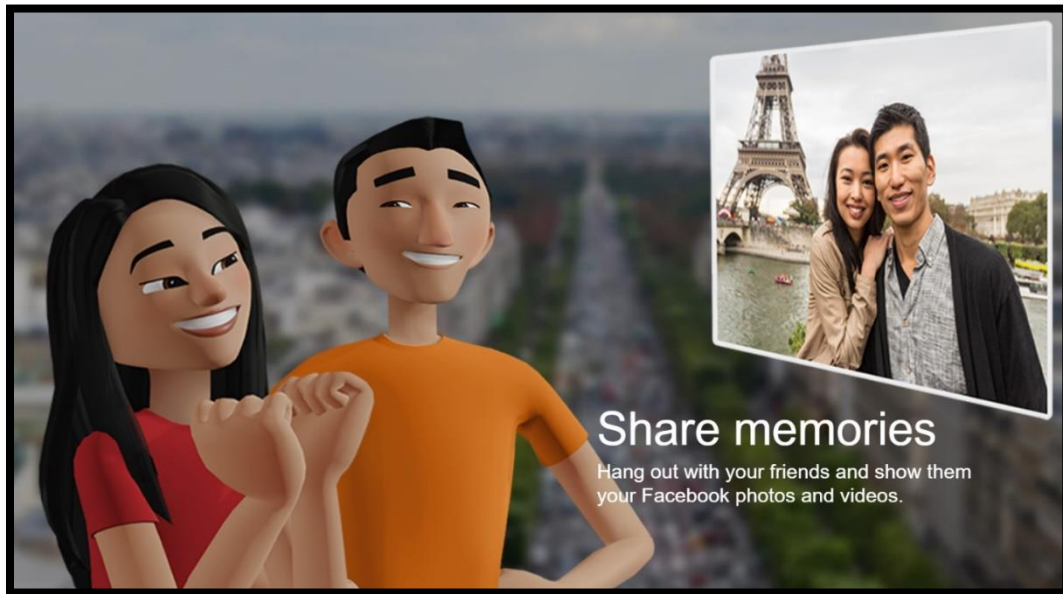


Figure 30. A screenshot from the Facebook's Spaces official website.

On the other hand, however, this or any other project that uses this technology and aims at connecting relatives or friends⁶⁶ who otherwise cannot ‘meet’ might greatly help with maintaining relations and providing a base to engage also beyond VR – especially if a project can emotionally move and connect participants with each other and with the worlds they present.

⁶⁵ Official website: <https://www.facebook.com/spaces>.

⁶⁶ Especially in times marked by a migration crisis.

Therefore, as VR is beginning to come out of its isolation, transforming into a more interactive phenomenon – in the sense of communicating with other participants of the experience – I would claim that the framework should analyze VR documentaries more from a “social” interactive angle, rather than just “interactive”, in Nichols’ words.

From ‘expository’ to ‘interactive exhibiting’⁶⁷

“What if I could present you a story that you would remember with your entire body and not just with your mind?” – Nonny de la Peña asks at the beginning of her TEDWomen Talk in May 2015⁶⁸. From 2012, de la Peña started employing VR technology to her news stories (both via 360-degree video and animated techniques) and thus her journalism, according to the MIT Open Documentary Lab, created a new type of sensory adventure, beyond traditional newsprint: the medium by which the information is transmitted adds new, evocative, haptic and deeply affective dynamics that improve the ‘realness’ factor (2014)⁶⁹.

My claim is that Bill Nichols’ ‘expository’ mode is partially adopted by VR documentaries that are defined under the umbrella of “immersive journalism”, however it fails to capture entirely what VR brings into the image. In order to validate this claim, at first I will address the emergence, style and function of the ‘expository’ mode exemplified by *Project Syria* (2014)⁷⁰ by Nonny de la Peña. Then I will propose how this mode could be transformed into a new one, which I call “interactive exhibiting”.

⁶⁷ Interactive exhibiting, i.e. navigation as inter-action.

⁶⁸ During her long experience as a journalist in print, broadcast and documentary, de la Peña always wanted her audience to intensely and authentically react to her evocative stories, as she believes it may make a difference and inspire people to care and act. That is why, as she said in the later parts of the TED Talk, she started doing journalism and virtual reality together, marrying her knowledge and skills with her love for technology.

⁶⁹ Importantly, when creating ‘immersive journalism’, the reporter needs to be very tentative and s/he is obliged to follow best journalistic practices and principles to make sure that powerful stories are designed with uprightness. As de la Peña said, “If we don’t capture the material ourselves, we have to be extremely exacting about figuring out the provenance and where did this stuff come from and is it authentic?” (2015).

⁷⁰ I recommend watching the trailer: <https://youtu.be/digE62wpHOk>.



Figure 31. A screenshot from the VR documentary *Project Syria* (2014) – opening scene.

According to William Uricchio, “CGI for VR creates images from computer graphics rather than capturing data from the real world. These modeled spaces, objects, and people may take the physical world as their basis” (2016). In case of *Project Syria*, de la Peña used documentary footage as a reference to later construct the story and to represent this place (de la Peña’s team was sent to the border of Iraq to record material at refugee camps). Thus the journalistic process is different from the traditional one: first the evocative audio is captured on scene – recorded at a real scene, at a real crisis. Then, CGI models with photo-realistic textures are built – reconstructed from the video and photographs.

“The civil war in Syria may seem far away. Until you experience it yourself”, the official trailer of this Computer-Generated Imagery (CGI) piece projects. This news story about Syrian refugee kids places the viewer on the streets of Syria: it starts with a young girl, who is singing a song when a bomb goes off (real, captured event). Now, when the spectator is in the middle of that scene, hearing those sounds and watching the injured around, s/he is scared as if s/he were actually witnessing the war. And that is the aim of the creator:

This astonishing sense of presence that the VR technology can now afford will try to make you understand of how it is to be a Syrian refugee. If we can make people to feel how difficult their circumstances actually are, perhaps they could actually start to think about what kind of action they can actually take. (de la Peña 2014)

In the next parts of *Project Syria*, the spectator is led by the voice of a narrator, who in a very journalistic way emphasizes the impression of objectivity and a well-supported perspective. His professional voice-over commentary and the official tone itself reflect the authoritative manner of news reporting, building a sense of credibility from qualities such as detachment or neutrality. Exactly like in the ‘expository’ documentaries, images from many different times and places are shown to illustrate a perspective and convey an argument in a clear, engaging way. Moreover, the dominance of its rhetorical stance and direct voice seeks to inform the audience, developing the viewer’s trust at the same time.

Importantly, *Project Syria* uses the headset and infrared sensors for body tracking, allowing the user to walk within the virtual 3D environment. Led by the voice of a narrator, the viewer freely explores the animated scenes. Thanks to VR s/he can have a full-bodied encounter with a media world that makes the journalistic piece particularly ‘immersive’. The interactivity is limited to walking and looking, so that the story does not shift. Yet this limited interactivity is enough to create what de la Peña calls a “special narrative”, which she suggests can foster a powerful sense of connection to a historical moment (2015).

I argue that VR’s ability to immerse into another world as well as the knowledgeable voice-over in *Project Syria* give an analogy with a curated exhibition that we can actually visit (as Nonny de la Peña was a curator of a VR space). The ways in which everything in the CGI VR documentary has been displayed, mediated and discussed, as well as the fact that while embodying spectating this project, one can feel like actually visiting the space and learning the reality could be an example of a practice-based curated exhibition, thanks to which (exactly like with her journalistic piece) the audience gets the chance to understand new contexts. In his book, *The Culture of Curating and the Curating of Culture(s)* (2012), Paul O’Neill describes how art may be framed and expressed by curators who are responsible for their conceptualization and production. I would argue that the critically-engaged journalist and creator Nonny de la Peña could be read also as a curator of a new virtual space that represents reality and gives knowledgeable commentary.

Moreover, taking the perspective presented in Nanna Verhoeff and Clancy Wilmott’s article “Curating the City: Urban Interfaces and Locative Media as Experimental

Platforms for Cultural Data” (2016), in which the authors depart from Frank Kessler’s approach to the concept of *‘dispositif’* for discerning the “possibility of contact, participation, play, as well as bodily and sensual experiences” to a form or a possibility to organize or produce an artistic event, we could also apply it to the “exhibitory mode” of VR doc’s representation. *Dispositif*, according to Verhoeff and Wilmott, may be understood as an arrangement of spatial and temporal settings that later produce new meanings – just like in *Project Syria*, where de la Peña wanted to raise awareness of the dramatic situation of children suffering the most from the civil war in Syria. Additionally, still following the above mentioned article:

Dispositifs, or any kind of spatiotemporal spectatorial and participatory arrangement, entail a form of curatorial design. The curatorial is here understood as a broader conceptual framework for the design of and programming within cultural spaces – whether virtual, social, geographical, or conceptual – than the more narrow sense of curation as the professional practice of designing museum exhibitions. (Verhoeff, Wilmott 120)

Thus, explicitly interpreting, VR documentaries can be analyzed through the lens of curatorial design. Moreover, for de la Peña, the capacity of the participant to move within the work is critical to the form of embodied presence that she is seeking to generate physical ‘navigation’ (i.e. interaction) of the spectator within a simulated space. I believe that when we “add” the VR technology to the “expository mode”, especially when the project is an example of immersive journalism, we can get a new, “interactive exhibiting” mode.

From ‘observational’ to ‘interactive immersive witnessing’⁷¹

The ‘observational’ mode – both for cinematic and VR productions – is the most connected to the idea of ‘transporting’ the viewers to locations beyond their everyday lives and enabling them to observe the unknown world (for example, in his article “Television, Film and the Struggle for Media Identity” (1998), William Uricchio examines TV as a ‘window’ into distant places).

⁷¹ Interactive immersive witnessing, i.e. ‘watching as inter-acting’.

According to Alfio Leotta and Miriam Ross (2018), the convergence between travel and visual media that emerged in the 19th century⁷² is still very present in VR documentaries, which continue to represent the world through a range of VR devices. Here I will claim that Nichols' characteristics of the 'observational' mode give a theoretical background to analyze how the 'sense of presence' provided by VR technology strengthens the immersion and the possibility to 'witness' a particular event.

Like most of the VR documentaries produced by Gabo Arora and Chris Milk in partnership with the UN⁷³, *Waves of Grace* (2015)⁷⁴ involves a form of observational documentary with a voiceover from the subject's point of view. *Waves of Grace* portrays the story of Deontee Davis, an Ebola survivor who uses her immunity to care for orphaned children in her Liberian village⁷⁵.

⁷² The colonial acquisition of new territories enabled travelling cameramen and production companies to set up a base within a native, already conquered community, then shoot films about their everyday life, sensational incidences, and natural surroundings – in order to later display a foreign world to the mass audience. According to ethnographic film theoreticians, the most frequently shown nonfiction actualities were of the “travelogue” genre, due to their popularity and emotional affect on the spectator. Cinematic glimpses into other cultures, often accompanied by lectures based on exotic motion picture subjects and their livelihood, vividly invited the audience to become virtual ethnographers, as if cinema were a flawless mediator between them and the world. Tom Gunning, for example, by using the term “view” for early nonfiction films, stresses that the most characteristic quality of a travelogue is that the spectators don't just watch a “view” film as a presentation of people, place, an event, but they also mime, as if they were put at the presented place, so they could almost experience it (Gunning, 1995). Apart from film, we could also mention Albert Kahn's *The Archives De La Planete* (1908-1931) – a first multimedia archive which contained color photographs and unedited nonfiction films. As Paula Amad writes in her book *Counter-Archive: Film, the Everyday, and Albert Kahn's Archives De La Planete*, Khan had expressed the “purpose of capturing and storing the transformation of everyday life in the modern world”, which was “one of the 20th century's most utopian experiments in world memory and modern media” (Amad, 2010: 5). What was remarkable about his project was that the archives were devoted not only to everyday life events, but to recording the diversity of global daily life: from civil and religious buildings, clothes, weapons, rural and urban scenery and transportation, to events like funerals, weddings, or any human or animal activities. The archives included color autochrome photographs and nonfiction films shot across the planet, compiled with the intention to “capture the world” in order to facilitate international cooperation and peace. Khan employed independent cameramen to “collect life” in over 40 countries. The majority of recordings consist of unedited footage, making it an unique collection of early nonfiction film. Taken as a whole, they offer an exotic panorama of the cinematographic world exhibition.

⁷³ <http://unvr.sdgactioncampaign.org/>

⁷⁴ The VR documentary is available at: <https://www.with.in/watch/waves-of-grace>.

⁷⁵ Liberia has endured the largest Ebola outbreak in history. As communities rebuild, Deontee and others seek healing through faith.



Figure 32. A screenshot showing Decontee Davis.

A series of long static shots in 360 video⁷⁶ reflect everyday scenes from a Liberian village: the school, the market, burial grounds. Decontee Davis is shown in the hospital tending to a sick child, working with orphans, at a church service. The camera is mostly an unacknowledged observer, which accounts for how presence – which intensifies the spectator’s emotional involvement – is experienced. The spectator is a kind of a witness to unmediated reality – s/he is at the scene ‘among’ the documentary subjects, however, not being witnessed by them (no interactions, or direct notice from the subjects of the documentary). In this way, the spectator is more observing the event, truly feeling in the middle of it, rather than critically engaging with a creative documentary work from a safe distance.

⁷⁶ Most of the 360 video VR documentaries that I have experience during the research for this thesis pursued this illusionistic presence and an observational style of filming, to offer the viewer a sense of unmediated access to remote locations and social worlds.



Figure 33. A screenshot from the VR documentary *Waves of Grace* (2015) – one of the school scenes.

Here the VR spectator is put in the middle of a classroom, as though secretly taking part in the lesson, a “fly on the wall”.

The VR documentary *Waves of Grace*, as per Nichols’ ‘observational’ mode, stimulate the spectators to draw conclusions from what they observe rather than what they are told. Additionally, the sound is tied to the image by the indexical link of synchronous recording, which is another quality of this mode. However, while the VR technology may reconfigure the documentary gaze (looking at something or someone for a long time, especially in surprise or admiration)⁷⁷, offering a novel experience to the audience like (in this case) seeing for bearing virtual witness to the social world, I claim that it is worth considering what implications it might bring for the modification of the mode.

In the TED talk I mention in Chapter One “How virtual reality can create the ultimate empathy machine”, Milk described *Clouds Over Sidra* (2014) – another observational VR documentary made in 360 video – as follows:

You are not watching through a screen, you’re sitting there with her (ed. Sidra, the main character of the VR documentary). You’re sitting on the same ground

⁷⁷ I define the concept of ‘documentary gaze’ here myself using it as a reference from a discourse of a “documentary look”, for example in “‘Man Bites Dog’: Deconstructing the Documentary Look.” (1997) by Jane Roscoe.

she is sitting on, and because of that you feel her humanity in a deeper way; you empathize with her in a deeper way. (Milk 2015)

Milk's description refers to Janet Murray's definition of 'immersion' (see page 20), however, importantly, the desire to be immersed according to Uricchio has its roots in 19th century inventions like Stereoscopy or Panoramic Photography⁷⁸ – not in the invention of VR⁷⁹.

This desire to be immersed is connected with the question as to why participants tend to respond realistically to situations portrayed within VR. According to Mel Slater (2009), there are two components that contribute to such a response: 1. Sense of 'being there' often called 'presence' – "the qualia of having a sensation of being in a real place" (1) which Slater calls "Place Illusion" (PI)⁸⁰ – constrained by the sensorimotor contingencies afforded by the VR system; 2. "Plausibility Illusion" (Psi) which "refers to the illusion that the scenario being depicted is actually occurring" (1) – determined by the extent to which the system can produce events that directly relate to the participant and the overall credibility of the scenario being depicted⁸¹. Coming back to *Waves of Grace*, the spectator surely knows that s/he is not actually on the spot and that the events are not actually occurring in real time. However, when both PI and Psi occur, following Slater's research, participants respond to VR realistically.

In a framework for conceptualizing the relationship between spectator and distant other (documentary subject), Kate Nash suggests that VR "profoundly changes their response to the testimony of the other" (2018). The potential for VR to produce forms of 'interactive (the spectator has the agency of observation) immersive witnessing' – the capacity for embodiment and first-person experience, feeling as though the spectator is somewhere else usually produces a strong response grounded in empathy, understood as the ability to put oneself 'in the shoes of another'. In this scope, VR witnessing is tied to its ability

⁷⁸ <https://momentsofinnovation.mit.edu/immersion>.

⁷⁹ VR travel documentaries also promise the possibility of fulfilling René Barjavel (1944) and André Bazin's (2009) prophecies regarding the emergence of Total Cinema, which would allow viewers a fully immersive, multisensorial, engagement and in which the apparatus of representation disappears (Leotta, Ross 2018).

⁸⁰ According to Slater, the terminology is problematic: the word 'presence' has come to have multiple meanings, and it is difficult to have any useful scientific discussion about it given this confusion (2009).

⁸¹ Which in sense of representing nonfiction (rather than fiction) is likely to happen.

to simulate subjective experiences of the other for an audience. Additionally, by “interactive immersive witnessing” the spectator is often put into position of uncanny intimacy with the subject (in *Waves of Grace* there are moments when Decontee looks straight at the camera and thus into eyes of the spectator), as the VR documentary simultaneously registers the absence of the body while providing unparalleled access.

CHAPTER THREE: CONCLUSIONS

Previous theoretical understanding of documentary cinema remains highly relevant to the VR documentary practice, as explicitly stated by Gabo Arora “I took an unorthodox approach, but I was looking at it from the classic lens of documentary” (2019). This last chapter of the thesis exemplifies how Bill Nichols’ modes of documentary film can be translated into contemporary VR practice and thus give an important fundament for a framework of how VR documentaries can be analyzed in terms of their modes of representation. However, what my examination showed most clearly is that Nichols’ ‘interactive mode’ that groups under one label all the digital documentary developments needs deeper rephrasing (for the VR docs analysis). For the purpose of this thesis I came up with four different modes and types of possible interactivity within VR projects, however, I am certain that there can be multiple other ways to look at this still very new, underdeveloped and under-researched field of VR documentary. According to Yingchi Chu, the concept of a genre should fundamentally include its flexibility, which is crucial for its apprehension and use (2015). Moreover, as genres intentionally order typological principles and create categories that constitute terminologies and history of types, they also take part in a process of constant change, breaking boundaries and – within time – splitting classifications into new models. It is worth mentioning that the new discipline of VR documentaries – just like any other – needs new terminologies and lexicons. Following William Uricchio, who – instead of the term ‘storytelling’ – is “personally a big fan of *story finding* in VR projects” (2019), or Gabo Arora who uses “story living”, I decided to creatively answer VR docs’ new characterizations.

Interactive VR documentaries offer the potential to change the nature of documentary aesthetics, practices, experience or even forms of political engagement. Such shifts pose a significant challenge to the ‘documentary tradition’ as the modes of VR docs’

representation are set by different assumptions and expectations of audiences. Therefore I would argue that the digital transformation and new variations of interactivity can radically change the basis of documentary culture.

Another important issue that was examined in this chapter relates to the problem of representing others, which has a long history within documentary ethics. VR documentaries, especially ones that I label as “interactive immersive witnessing”, require a rethinking of the existing debates about ethical frameworks and implications of virtual encounters with images of real people and places – which Paul Virilio’s theory also touches upon. Likewise the ‘observational’ mode of documentary film, “interactive immersive witnessing” VR docs depend on a series of relationships between the filmmaker, spectator and the subject of a documentary, which requires a deeper reflection when the spectator claims to be immersed and experiencing someone else’s situation. And while the claim of “empathy machine” is the subject of increasing critique, the potential to promote or support new relationships between spectators and the subjects of documentaries as an essential motivation for VR productions raises important critical questions for further discussions.

The ethical tension echoes another question as well: how much mediation is ethical? Here, I would argue that VR creators, who should freely use Grierson’s definition of creativity, should also be aware of dangerous misrepresentation of others and to minimize potential harm to the subjects.

Outlook

A new mode is not so much better as it is different, even though the idea of “improvement” is frequently touted, especially among champions and practitioners of a new mode or technology. Every change brings a different set of emphases and implications, opportunities and constraints. But every new mode or new way of making and distributing work will in turn eventually prove vulnerable to criticism for limitations that some type of alternative promises to overcome. New modes signal less a better way to represent the historical world than a new way to organize a film, a new perspective on our relation to reality, and a new set of issues and desires to preoccupy an audience.

Bill Nichols (2017)

This thesis offers my critical position within the scholarly debate. I am hopeful that the knowledge I produce by challenging Nichols’ framework will help to serve future research. Also, since each chapter of this thesis ends with its own conclusions, I propose replacing final conclusions with a list of possible questions, perspectives or suggestions for further study, that I came up with while writing my thesis:

- a) As the production process of VR documentaries is exceptionally interdisciplinary and relies on collaboration between documentary makers, various digital media specialists, coders and designers, I believe it would be interesting to test whether all these visions can work together or collide.
- b) Prof. Uricchio mentioned during our interview that: “VR moments are mostly connected to technological developments” (2019). This begs to ask what will change within the VR documentary field when new, and even newer technologies, for example AI, will be developed, introduced or merged with VR docs’ works.
- c) Furthermore, in a follow-up to the point above, what is the role of VR docs for media identity (Uricchio 1998)?
- d) One of the biggest problems within the VR documentary field, also according to prof. Uricchio, is the “bottleneck” (2019) of the VR technology itself, in a sense

that only one person can experience a project, at one location and at a given time, unlike with films that are available in vast locations and for big audiences at the same time. Hence a question arises on the potential of VR documentaries as platforms to attract audiences. What are the best ways for the factual media or institutions, who support VR docs' production, to get to wide audiences?

- e) As VR documentary' discourse is inevitably intertwined with aesthetics, I believe that also here, the research that combines aesthetics and politics, is important.
- f) The experience of virtual embodiment often proves to be limited, as I have demonstrated in the parts of my thesis on the "empathy machine". Will the VR docs' content ever be able to fulfill the actual premise of that concept?
- g) Admittedly, while my interviews yield an interesting insight, they constitute a rather limited corpus, (one person per field), to treat my research as a definite presentation of the current status of VR documentaries and all parties responsible for their creation. Deeper research would be valuable for the field and the research questions I strived to answer throughout my thesis.

Lastly, I believe that continuing to define the term 'VR documentary' in a reflective way, between academics, creators and distributors, is a process rather than a 'milestone', and will be essential for the format to unlock its aesthetic potential and social benefits.

Bibliography

- Armitage, John. *Virilio and the Media*. Cambridge, UK ; Malden, MA : Polity, 2012.
- Aston, Judith and Sandra Gaudenzi. "Interactive Documentary: setting the field." *Studies in Documentary Film*, vol. 6, no. 2, June 2012, pp. 125 – 139.
- Becker, Howard Saul. *Art Worlds*. 25th anniversary ed., University of California Press, 2008.
- Buschmann, Josefina. "Virtual Reality Gets Social: At sundance, proof that the Future of VR is shared experiences". *IndieWire*, February 2nd, 2018.
<https://www.indiewire.com/2018/02/vr-virtual-reality-social-sundance-1201924027/>(last accessed 6.6.2019).
- Chan, Melanie. *Virtual Reality: Representations in Contemporary Media*. New York: Bloomsbury Academic, 2014.
- Chion, Michel, and Claudia Gorbman. *Audio-Vision : Sound on Screen*. Columbia University Press, 1994.
- de la Peña, Nonny. "Immersive Journalism: Immersive Virtual Reality for the First-Person Experience of News." *PRESENCE: Virtual and Augmented Reality*, vol. 19, issue 4, August 2010, pp. 291-301.
- de la Peña, Nonny. "The Future of News? Virtual Reality." *TED*, May 2015,
https://www.ted.com/talks/nonny_de_la_pena_the_future_of_news_virtual_reality
(last accessed 6.6.2019).
- Doyle, Phillip. "Embodied and Disembodied Voice: Characterizing nonfiction discourse in cinematic-VR." *10th International Conference on Interactive Digital Storytelling*. Springer International Publishing, 2017, pp. 363–366.
- Fisher, Joshua A. "Empathic Actualities: Toward a taxonomy of empathy in virtual reality." *10th International Conference on Interactive Digital Storytelling*. Springer International Publishing, 2017, pp. 233–244.
- Fischer-Lichte, Erika. *The Transformative Power of Performance: A new aesthetics*. Routledge, 2008.

Geraghty, Lincoln, and Mark Jancovich. *The Shifting Definitions of Genre: Essays on labeling films, television shows and media*. McFarland, 2008.

Greene, Katie. "How VR Porn is Secretly Driving the Industry". *VR Focus*, March 27th, 2018, <https://www.vrfocus.com/2018/04/how-vr-porn-is-secretly-driving-the-industry/> (last accessed 6.6.2019).

Hight, Craig. "The Field of Digital Documentary: A challenge to documentary theorists." *Studies in Documentary Film*, vol. 2, no. 1, 2008, pp. 3-7.

Howes, David. "The Expanding Field of Sensory Studies". *Sensory Studies*, August 2013, <http://www.sensorystudies.org/sensorial-investigations/the-expanding-field-of-sensory-studies/> (last accessed 6.6.2019).

Kool, Hollis. "The Ethics of Immersive Journalism: A rhetorical analysis of news storytelling with virtual reality technology" *Intersect: The Stanford Journal of Science, Technology and Society*, vol. 9, no. 3, 2016.

Krueger, Alison. "Virtual Reality Gets Naughty". *The New York Times*, October 28th, 2017, <https://www.nytimes.com/2017/10/28/style/virtual-reality-porn.html> (last accessed 6.6.2019).

Leotta, Alfio and Ross, Miriam. "Touring the 'World Picture': Virtual reality and the tourist gaze". *Studies in Documentary Film*, vol. 12, no. 2, 2018, pp.150-162.

McRoberts, Jamie. "Are We There Yet? Media content and sense of presence in non-fiction virtual reality". *Studies in Documentary Film*, vol. 12, no. 2, 2018, pp. 101-118.

Maasdorp, Liani. "Looking In, Looking Out: The self-reflexive mode of representation in a selection of contemporary South African documentary films." *South African Theatre Journal*, vol. 25, no. 3, 2011, pp. 208-226.

Middleton, Peter and Spinney, James. "Notes on Blindness" (op-doc). *The New York Times*, 16 Jan. 2014, <https://www.nytimes.com/video/opinion/100000002653284/notes-on-blindness.html> (last accessed 6.6.2019).

Milk, Chris (speaker). "The Birth of Virtual Reality as an Art Form." *TED*, https://www.ted.com/talks/chris_milk_the_birth_of_virtual_reality_as_an_art_form (last accessed 6.6.2019).

Murray, Janet H. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. Updated ed., MIT Press, 2017.

Murray, Janet H. "Not a Film and Not an Empathy Machine. How necessary failures will help VR designers invent new storyforms." *IMMERSE*, October 6th, 2016, <https://immerse.news/not-a-film-and-not-an-empathy-machine-48b63b0eda93> (last accessed 6.6.2019).

Nash, Kate. "Documentary-for-the-Other: Relationships, Ethics and (Observational) Documentary". *Journal of Mass Media Ethics*, vol. 26, no. 3, 2011, pp. 224-239.

Nash, Kate. "Virtual Reality Witness: Exploring the ethics of mediated presence". *Studies in Documentary Film*, vol. 12, no. 2, 2018, pp. 119-131.

Nichols, Bill. *Introduction to Documentary*, 3rd ed. Indiana University Press, 2017.

Nichols, Bill. *Blurred Boundaries : Questions of Meaning in Contemporary Culture*. Indiana University Press, 1994.

O'Neill, Paul. *The Culture of Curating and the Curating of Culture(s)*. MIT Press, 2012.

Plantinga, Carl. "What a Documentary Is, After All". *The Journal of Aesthetics and Art Criticism*, vol. 63, no. 2, 2005, pp. 105-117.

Rose, Mandy. "The Immersive Turn: Hype and hope in the emergence of virtual reality as a nonfiction platform." *Studies in Documentary Film*, vol. 12, no. 2, 2018, pp. 132-149.

Rose, Mandy. "Technologies of Seeing and Technologies of Corporeality: Currents in nonfiction virtual reality." *World Records*, vol.1, no. 1, 2018, pp. 1-11.

Scolari, Carlos Alberto. "Mapping Conversations About New Media: The Theoretical Field of Digital Communication." *New Media & Society*, 11(2009), Nr. 6, S. 943 - 964, 2009.

Shanken, Edward A. "Historicizing Art and Technology: Forging a method and firing a canon." *Mediaarthistories*, MIT Press, 2007.

Sobchack, Vivian. *Carnal Thoughts: Embodiment and Moving Image Culture*. University of California Press, 2004.

Slater, Mel. "Place Illusion and Plausibility Can Lead to Realistic Behaviour in Immersive Virtual Environments." *Philosophical Transactions: Biological Sciences*, vol. 364, no. 1535, 2009, pp. 3549–3557.

Staiger, Janet. "The Politics of Film Canons." *Cinema Journal*, vol. 24, no. 3, 1985, pp. 4–23.

The VR Glossary. <http://www.vrglossary.org/> (last accessed 6.6.2019).

Virilio, Paul. *The Vision Machine*. Indiana University Press, 1994.

Uricchio, William. "Television, Film and the Struggle for Media Identity." *Film History*, vol. 10, no. 2, 1998, pp. 118–127.

Urrichio, William. "VR Is Not Film, So What Is It?" *Immerse*, November 8th, 2016, <https://immerse.news/vr-is-not-film-so-what-is-it-36d58e59c030> (last accessed 6.6.2019).

Uricchio, William. "Virtually There: Documentary Meets Virtual Reality." *MIT. Open Documentary Lab*, 2016, <http://opendoclab.mit.edu/presents/virtually-documentary-meets-virtual-reality-conference-report/> (last accessed 6.6.2019).

Urrichio, William. "VR: Between Hope, Hype, and Humbug". *LARB*, June 25th, 2018, <https://lareviewofbooks.org/article/vr-between-hope-hype-and-humbug/#!> (last accessed 6.6.2019).

Wintonick, Peter. "New Platforms for Docmedia: 'Varient of a Manifesto'." *The Documentary Film Book*, British Film Institute, London, 2013, pp. 376-382.

Verhoeff, Nanna and Clancy Wilmott. "Curating the City: Urban Interfaces and Locative Media as Experimental Platforms for Cultural Data". *Code and the City*, ed. by Rob Kitchin and Sung-Yueh Perng, Routledge, 2016, pp. 116-129.

Yingchi, Chu. "The Dogmatic Documentary: The missing mode" *New Review of Film and Television Studies*, 2015, pp. 403-421.

Filmography

700 Sharks: Into The Pack. Frederic Gourdet, Manuel Lefevre. ARTE France, Le 5e reve, Neotopy. France. 2018. Virtual reality. <https://www.with.in/watch/700-sharks-into-the-pack>.

Accused no. 2: Walter Sisulu. Gilles Porte, Nicolas Champeaux. La Generale de Production. France. 2018. Virtual reality.

Assent. Oscar Raby. Australia. 2014. Virtual reality. <https://oscarraby.net/assent/>.

Awavena. Lynette Wallworth. Nicole Wallworth. Australia, Brazil, USA. 2018. Virtual reality. <http://www.awavenavr.com/>.

Clouds Over Sidra. Chris Milk, Gabo Arora. VRSE.Works, United Nations. USA. 2015. Virtual reality. <https://www.with.in/watch/clouds-over-sidra>.

Far from Poland. Jill Godmilow. USA. 1984. Film. <https://artmuseum.pl/en/filmoteka/praca/godmilow-jill-far-from-poland>.

In Jackson Heights. Frederick Wiseman. Moulins Films. France, USA. 2015. Film.

Is the Man Who Is Tall Happy? An Animated Conversation with Noam Chomsky. Michel Gondry. Partizan Films. France. 2013. Film.

Notes on Blindness. James Spinney, Peter Middleton. ARTE France. United Kingdom. 2014. Film. <http://www.notesonblindness.co.uk/>.

Notes on Blindness. Amaury La Burthe, Arnaud Colinart, James Spinney, Peter Middleton. ARTE France, Aecher's Mark, AudioGaming, Ex Nihilo. France, United Kingdom. 2016. Virtual reality. <http://www.notesonblindness.co.uk/vr/>.

Project Syria. Nonny de la Peña. Emblematic Group, Michael Licht, Vangelis Limpouridis. USA. 2014. Virtual reality. <https://docubase.mit.edu/project/project-syria/>.

Refugee Republic. Jan Rothuizen, Martijn van Tol, Dirk Jan Visser. The Netherlands. 2014. I-doc. <https://refugeerepublic.submarinechannel.com/>.

SICKO. Michael Moore. Dog Eat Dog Films. USA. 2007. Film. <https://michaelmoore.com/movies/sicko/>.

Tarnation. Jonathan Caouette. Tarnation Films. USA. 2003. Film.

Waves of Grace. Chris Milk, Gabo Arora. Here be Dragons. USA. 2015. Virtual reality. <https://www.with.in/watch/waves-of-grace>.

ZIKR: A Sufi Revival. Gabo Arora, John Fitzgerald, Matthew Niederhauser. Jennifer Tiexiera. USA. 2018. Virtual reality. <https://www.engadget.com/2018/01/19/zikr-sufi-dancing/?guccounter=1>.

Figure credits

Cover Image: “Joel Yawanawa looks at dailies in the VR cardboard. Photo by Greg Downing.” Source: <http://www.awavenavr.com/press-materials>.

1. “A screenshot from the *IDFA DocLab* website.” Author’s screenshot, Source: IDFA DocLAB, <https://www.doclab.org/2014/assent/>.
2. A screenshot from the YouTube website showing the *Home* (2016) VR Documentary by Efran Saadati, Rufus Norris and Toby Coffey.” Author’s screenshot, Source: <https://www.youtube.com/watch?v=ur1NVVkKs5Q&t=4s>.
3. “A screenshot from *Tron* (1982).” Author’s screenshot.
4. “Left: Original photo of John Hull; Right: the actor Refe Beckley depicting Hull in the documentary film.” Author’s screenshot, Source: <https://www.nytimes.com/interactive/2014/01/16/opinion/16OpDoc-NotesOnBlindness.html>.
5. “Screenshots from the VR version of *Notes on Blindness* (2016).” Author’s screenshot.
6. “A screenshot of one of the sequences of *Notes on Blindness* VR experience (2016).” Author’s screenshot.
7. “A screenshot from the *Moments of Innovation* project’s website.” Author’s screenshot, Source: <https://momentsofinnovation.mit.edu/>.
8. “A screenshot from the *MIT Open Documentary Lab* website.” Author’s screenshot, Source: <https://docubase.mit.edu/>.
9. “A screenshot from the *WITHIN* website.” Author’s screenshot, Source: <https://www.with.in/experiences>.
10. “Table of Bill Nichols’ modes of representation based on his book *Introduction to Documentary* (2017).” Author’s table.
11. “A screenshot from the *IDFA DocLab* website.” Author’s screenshot, Source: <https://www.doclab.org/category/projects/>.
12. “A screenshot from *The Digital Canon* website.” Author’s screenshot, Source: <https://www.digitalcanon.nl/#list>.

13. "A screenshot from the *VR Documentary Encounters* website." Author's screenshot, Source: <http://vrdocumentaryencounters.co.uk/vrmediography/vrmediography/theme/browser/>.
14. "A screenshot from the poetic documentary *Is the Man Who Is Tall Happy? An Animated Conversation with Noam Chomsky* (2013) by Michel Gondry." Author's screenshot.
15. "A screenshot from the VR documentary *Accused no. 2: Walter Sisulu* (2018)." Author's screenshot.
16. "A screenshot from the *Tarnation* (2003) by Jonathan Caouette." Author's screenshot.
17. "A screenshot from the VR documentary *700 Sharks: Into The Pack* (2018)." Author's screenshot.
18. "A screenshot from the VR documentary *700 Sharks: Into The Pack* (2018) on which we can see the filmmaker with his camera." Author's screenshot.
19. "A screenshot from the documentary *Far from Poland* (1984) by American director Jill Godmilow." Author's screenshot.
20. "The screenshot shows Hushahu, the first woman shaman of the Awavena." Production still from *Awavena*, Source: <http://www.awavenavr.com/press-materials>.
21. "Joel Yawanawa looks at dailies in the VR cardboard." Photo by Greg Downing, Source: <http://www.awavenavr.com/press-materials>.
22. "A screenshot of the 'vision sequence' from the VR documentary *Awavena*." Author's screenshot.
23. "Shooting the documentary *Notes on Blindness* (2014)." Source: <https://www.nytimes.com/interactive/2014/01/16/opinion/16OpDoc-NotesOnBlindness.html>.
24. "A screenshot from the VR documentary *Assent* (2013)." Author's screenshot.
25. "The official poster of *SICKO* (2007) by Michael Moore." Source: <https://michaelmoore.com/movies/sicko/>.

26. "The official poster of the *In Jackson Heights* (2015) by Frederick Wiseman." Source: <https://www.imdb.com/title/tt4936064/>.
27. "A screenshot from the i-doc *Refugee Republic* (2014) by Jan Rothuizen, Martijn van Tol, Dirk Jan Visser." Author's screenshot, Source: <https://refugeerepublic.submarinechannel.com/>.
28. "A photo from the *Sundance Film Festival* 2018." Source: http://www.sundance.org/gallery?sort=Newest&event_type=Sundance%20Film%20Festival.
29. "A photo from the *IDFA DocLab* 2018." Source: <https://www.idfa.nl/en/info/looking-back-on-idfa-2018>
30. "A screenshot from the official website *Facebook's Spaces*." Author's screenshot, Source: <https://www.facebook.com/spaces>
31. "A screenshot from the VR documentary *Project Syria* (2014) - opening scene." Author's screenshot.
32. "A screenshot presenting Deontee Davis." Author's screenshot.
33. "A screenshot from the VR documentary *Waves of Grace* (2015) - one of the school scenes." Author's screenshot.

Appendix 1: Interview with Caspar Sonnen (19.04.2019)

Martyna Turska: In a conference report *Virtually There. Documentary Meets Virtual Reality* written by William Uricchio, Sue Ding, Sarah Wolozin and Beyza Bayacioglu⁸² we read: “VR techniques and terminologies are in constant flux, reflecting the transitory state of the medium itself. But for the purposes of this case study, we attempt to classify and define current VR techniques in order to clarify their distinctions and lay out their affordances”. Does IDFA DocLab have its own classification or grouping that helps to choose, organize and curate VR documentaries which will be later exhibited? Do you think there is a worthwhile goal of putting some order into the apparent chaos of so many new media documentary projects? And if you are grouping these works, is it based on genres, subgenres or more on different types of technologies?

Caspar Sonnen: It’s based on all of the above, unfortunately. We've been asking the same questions ourselves in 2007 [ed. when IDFA DocLab was established], and basically we're still unable to answer them. And everybody's been asking us ever since: “so what is it that IDFA DocLab actually shows? Because the film part of the festival shows film, so what is DocLab?” And we don't have a single word for that, other than saying: we are showing documentary art that is not a linear film - which is not unlike documentary itself. And furthermore, I think that in general it is very hard to describe what documentary is.

MT: Yes. How would you describe it?

CS: So, we know that usually we face nonfiction, and that gives us a way to distinguish these two (fiction and nonfiction world), but also to acknowledge that it's not a binary world: probably some of the most interesting documentaries are hybrid fictions and probably some of the most interesting fiction films are a hybrid documentaries. I think that's step one towards thinking about documentary. Then, in terms of "not film parts" - the question about the medium arises... And that is a very difficult one.. I'm happy you say "VR Documentary", although I really don't know what that means. I think that by "VR" you mean things that you watch or experience through a stereoscopic television headset strapped to your face...?

MT: Yes, exactly.

⁸² The report was presented after the MIT Open Documentary Lab, the John D. and Catherine T. MacArthur Foundation and The Phi Centre (May 6&7, 2016)

CS: I think that's kind of what we all agree that VR is. But then that's where it gets blurry: does then AR become part of VR? And is VR a personal experience where you are closed off from the world around you...? That's one type of technical restriction of certain types of VR. Furthermore, if it is interactive or not? Huge difference!

MT: **People are obsessed with discussions over 360 video - whether that is VR or not.**

CS: Well, defined by the device on your face - that is VR. Defined by the experience - it's not as spatial as certain CGI immersive projects. Moreover, is extremely immersive Escape Room a VR? I think those are questions that we love to talk about and we love to show works that defy existing definitions specifically because we feel that VR is one of the most exciting things that happened in the last 30 years in the media industry. It's part of a long long long tradition of striving towards real immersiveness - from stereo photography to where we are now. However I don't know what VR is specifically. I know that it's more spatial than film. I know that it's more interactive than film in the sense that you can look around you and sometimes even a lot more - when you can walk around.

MT: Yes, I also ask myself these questions while writing my theses. Everything you say links very much into what I'm actually trying to do in the core of my thesis: to grasp what's at stake in VR developments, I think it is helpful to revisit Bill Nichols' framework for analyzing documentary in the context of his seven traditional modes of documentary representation - *poetic, expository, observational, participatory, reflexive, performative, interactive* - and check if they have their "equivalents" in VR representations. What do you think about it?

CS: It's very very very nice. I like that!

MT: Thank you!

CS: Because, when we go back to the documentary question, when I started the DocLab program in 2007, we had to come up with the idea on what is it going to be about and what will be our focus, how do we define what we show. And I basically got stuck. And then I used Grierson's definition to say, that DocLab will be about "the creative treatments of actualities" in not-film.

MT: **Documentary art across disciplines - the "creative treatment of actualities".**

CS: Yeah. And I love the idea of going deeper into Nichols' seven modes, because those are crucial. Also, the issue with a lot of what is happening in this space - as much as I love the fact that

everything is conflated and complicated – is that it's often unclear whether somebody is an artist or an engineer.

MT: That's true.

CS: This is one of the things that we I think do a lot in our curation - making sure that we don't show stuff just because it's technically interesting or because it's has a great activist goal. Art comes first for us.

MT: And how to classify your exhibited art?

CS: One thing that is very good to mention is that we of course need to classify and make typologies for our audience but also for ourselves and for the artists that submit to us. Originally we had one competition, which was called "Digital Storytelling", and it was basically open to everything that was not film. And then, what's interesting, five years ago when VR started to explode, you could say that the sort of collection of "everything that was not film" became kind of a different thing. And thus we went in three directions: one was sort of Internet-based, not headset-based interactive art, which to a certain extent had a much longer tradition at least in the public eye than VR. We kind of felt that for instance juries were struggling with "hey we have this beautiful web documentary but it's not as cool as the VR projects that nobody has ever seen before". So we started asking: "what is more innovative?"; "What is more new media?"; "What is more relevant to highlight or put in the spotlight?" And then we felt that there was this sort of thing happening where new media formats that were more established - because they were done both through devices that we all already have in our pockets [ed. like smart phones] - were kind of already being left behind because there was a new toy that was more shiny and new.

MT: And you probably felt, that thinking that only VR “is cool” is wrong?

CS: Yes, so at that point we saw that as a sign, that emerging media as a field is growing, and we shouldn't leave behind all the lessons from interactive documentary or on the web game installations and just move directly to headsets because it would be really wrong. And you could see that because some of the best VR artists actually came from that field. So that's when we made it split: from that point we divided our program into "The Digital Storytelling Competition" and "The Immersive Nonfiction Competition".

MT: And to which of these two did VR documentaries go?

CS: These two competitions are not divided by whether they are VR or not VR - specifically because we don't know what VR exactly is yet. But importantly, we do say that "Digital Storytelling" are the stories told on devices that are available and accepted by consumers, and that can be experienced outside of the festival as well as during the festival. And then "Immersive Nonfiction" is our competition for things that are more experiential, more sight-specific, more created for a dedicated hardware or specific technologies that people are not yet familiar with "in their living rooms" or in their everyday. So that means that for VR (as VR has been sort of developing and progressing) for us now 360 Cinema, 360 videos, linear 360 videos that are part of "Digital Storytelling".

MT: Because you can watch them on a cardboard on a smartphone. Everybody can have that.

CS: However, it is not only about technology. It's about how you tell the story - that's "Digital Storytelling". A room-scale experience was a part of "Immersive Nonfiction" last year, but we are already starting to think that these kind of specific installations challenge the "non-fiction" when the borders of an experience slip, and so maybe we will decide to regard it as "Digital Storytelling" or maybe soon we will have to come up with another category only for that particular interactive experience. Nevertheless, these are our two distinctions, two categories that we've created, which allow us to follow how the industry develops and grows.

MT: Yes it's amazing how this whole field is it is kind of a "living organism" that grows.

CS: Exactly. But it's also why all institutions struggle so much with it. Because what do we support? Who is this field? Where is the field? What are the regulations? What are the guidelines?

MT: These all questions are very interesting and, I believe, still under-developed. And to make things more complicated, I would like to ask you about another topic, which is about different sorts of expectations from audiences. What have you learned about the IDFA audience' expectations during 2008-2018 ? What has changed? Are visitors looking for the "empathy machine"? The potential of VR to give the user agency within immersive environments? Or maybe the potential for embodied interaction? Do they like to experiment, try something new, access the experience of another?

CS: Yeah I think I have quite a mundane approach to this. Maybe due to the fact that I studied film and new media, but also because I initially like really fell in love with cinema - by the way thanks to professor William Uricchio who taught me film history! During my studies and early

career, I worked in one of the oldest cinemas in Amsterdam, Pathé Tuschinski. And I spent a lot of hours of my life working in the box office selling movie tickets to people. And already then I realized, that maybe 1% of the audience are film-loving people. Probably even less. The main reason they are going to the cinema is definitely not art. People just want to be surprised. That's it. Honestly, in the case of cinema theatres, the real reason for a lot of cinema tickets to be sold is because people go to the movies always by two people. So the reason is that they will have something to talk about. That's what it is - a cultural ritual.

MT: That's why the cinema will never die.

CS: Yes, that's why "home theaters" or VR headsets will not kill cinema. Imagine the experience of having a new relationship and watching a film at home or watching a film in the theater - that's completely different! So I think all these sort of highbrow reasons to watch art, to experience art - they all come together in interdisciplinary situations. IDFA has the audience that want to see the latest technology - and at our DocLab you can touch it and try it and say ... that you hate it! (laugh). Another reason why people come is because it's "weird, unpredictable". That's one of the biggest powers in art: seeing the unpredictable. Another our audience is professional - and they have all their reasons.

MT: To meet, to network, to exchange thoughts and ideas.

CS: Yes. But in the end, it's always a balance with new media: that you don't turn it too much into a playground attraction. Exactly like when if you look at the early days of cinema, when cinema was a spectacle - new media struggle with its past's best, but then it also wants to be taken seriously as a new art form. This is why, exactly at festivals, rather strange thing like VR is happening. In our case, IDFA presents VR projects during the 10 days of the festival, next to other giant installations. So in terms of what the audience wants: yes we're really looking for that, and I think it's a combination of all the reasons we know from about why people want to select the film - which is based on: a topic, an artist, and on the type of experience. And then I think there is a sort of all these extra reasons that I would say are added up with from different disciplines. What we try to achieve through our curation and through our exhibition design, is to create a form of friendly-shared awkwardness imposter syndrome, because I think the biggest issue with the media is that people feel left out. We often hear "I'm not a gamer", "I'm not technical", "I'm not a geek". And I know, that those types of reactions are actually shared by everybody. When you invite someone from the game world to the DocLab exhibition and they'll say "I'm a gamer I'm not I'm not into this stuff, I don't know why this is as fun as games".

MT: So what can you do?

CS: What we tried to do is make sure that there is a diversity of types of experiences and works - from series to playful; from short to long; from collective to individual; from linear to performative - and all this together creates kind of this feeling that we're all feeling "out of place". So I think the most fun thing, is when I ask the visitors: "which of these works is the most experimental one? Which work is the established masterpiece? Or which one of these was a complete shit?" - they all give different answers although they went through the same exhibition. But paradoxically they are all much more comfortable in their answers than when they are with talking about a film - because film is much more well established media and thus the audience is much more used to actually give credit to the effect of the work.

MT” You are right! Interesting! Now, changing the topic a little bit.. In 1985 Janet Staiger, a theoretician and historian of American film and television who wrote about the canon formation said: “Those films (ed. that are in the canon) chosen to be reworked, alluded to, satirized, become privileged points of reference, pulled out from the rest of cinema’s predecessors. As ideal fathers, these select films are given homage or rebelled against.” Virtual Reality is a new medium and thus needs new ways of thinking and talking about issues that are characteristic for it. Do you think that the canon of VR documentaries already exists? Are there already initiatives towards canonization of VR docs? Are there VR docs that represent landmarks in documentary film production? Are there any „VR moments”? VR movements? Not yet? In the future? It's festivals the most, isn't it?

CS: For VR specifically, I think there is a body of work that we could see as the early landmark pieces, early classics and a few timeless masterpieces.

MT: Could you tell me which one would you would you call it and these landmarks?

CS: *Notes on Blindness* (2016) by Peter Middleton and James Spinney is a timeless masterpiece, the entire body of work of someone like Nonny de la Peña - I would say is foundational. And in her case, I would say it's more the whole body of work than a specific work to be singled out. Then, if we look at 360 videos, it's *Strangers with Patric Watson* (2014) - I'm happy to watch that in 50 years. Because that for me is a masterpiece - when you want to revisit it any time. And there are so many more examples...

MT: But there ARE examples. So it means that the canon exists?

CS: Well I wouldn't say that that we're there yet in terms of having a canon of VR documentary. I'm saying that because two years ago when we had our 10 year anniversary we created an "interactive documentary canon". Because I do feel that there is an interactive documentary canon to be made. I do feel that if we take it broader than just headset device - yes. And I do think there is a canon of interactive storytelling also interactive nonfiction storytelling across different non-linear devices. So two years ago we asked a group of people to select their favorite works that were out within the last ten years – the works that also contained a relatively few VR (there wasn't so much VR right in the year before that). However, if you take a broad enough - I think that yes, canon really exist if you take it broadly. But if we look specifically at VR - we can make lists. It's starting to become possible but it's early days. And it depends on your definition of VR.

MT: I understand. And who do you think is the player in the canon-formation landscape? Janet Staiger believes that the filmmakers play the most important role. Would you agree? Because I think that IDFA, as one of the biggest documentary film festival, has the institutional evaluative authority to validate established tastes and preference, and thus IDFA also plays an important role by engaging in canon formation.

CS: Yes. It is. But I also think it shouldn't be overstated. It's like saying if people who are ran the fairgrounds [...] were more important than the brothers Lumiere. And to that - I disagree. Or it's like saying that because Lenin loved cinema we got Dziga Vertov – and yet I hope you would agree that shouldn't take any artistic quality of Dziga Vertov and give a credit to Lenin. Or it's like saying that Caravaggio was a great artist only because there was Pope whom he painted. Or to give the credit to the church, because the painting was hung there. So as much as I would love to take a credit I take credit where credit's due. And it's due to people who create stuff. Under particular circumstances of very various funding, certainties and audiences – ridiculously small audiences comparing to the film industry by the way! And of course it all depends on the possibilities to take part in festivals, but also for example on the agreements with tech companies who will support the project – specific cameras, or specific headsets. So there are a lot of factors. What festivals bring is a level of independency, and a level of flexibility and a level of focus on art. And a final thing – maybe most importantly – a dedicated, guaranteed audience that really looks at your work. So at IDFA, a creator can find collaborators and kindred spirits. Which is hard in this fragmented industry.

Appendix 2: Interview with Gabo Arora (16.04.2019)

Martyna Turska: Documentary filmmakers represent the reality in very different ways, using various qualities to construct this reality. They use different kinds of modes, sometimes relying more on investigative journalism, sometimes more on traditional observational modes, sometimes participatory. Furthermore, most films display characteristics of multiple models and modes. Bill Nichols once wrote: “The voice of documentary testifies to the character of the filmmaker” (2017). I think you are playing with different modes and voices: in your work *Clouds Over Sidra* which is a 360 video documentary, we can only observe the situation – witnessing without being witnessed, but we can’t really interact Sidra or others. In *Zikr: A Sufi Revival* on the other hand, we not only can interact but we can also share the experience with others. How do you chose the modes of representation? Is it more experimenting with your artistic craft? Or more about following new technological possibilities? Are you looking for alternative approaches to challenge the traditional observatory mode with an objective view of events via “a fly-on-the-wall perspective”? Or are you changing the practices because it’s somehow “liberating”?

Gabo Arora: Well *Clouds Over Sidra* though is generally more passive. Just from the perspective of different scenes - sometimes you are a “fly on the wall”, sometimes you are acknowledged directly – for the example when kids surround you and look into your eyes. So I don't know if it's the same mode for the entire VR documentary, especially because you can play with the camera height. But I know what you mean in general. Obviously ‘interactivity’ switches the projects completely, I was always interested in that and I was trying to play with it even in a simple 360-video.

Surprisingly for people, I am a little bit more into the technology than the story itself - and I know it is not a fashionable thing to say! People say that first it’s the storytelling and then figuring out how the technology could support it. But I really think about the technology very deeply: figuring out HOW to tell a story that I think would work, and what I'm always trying to do, is to find new technologies. Unfashionable, but it's true! (laugh). So what I mean is that I'm much more interested in taking any new technology that kind of gets out there and might trigger the narrative potential. I then will retrofit and try to understand all the narratives and spaces that I care about what's out there. What do I think will play well.

MT: Could you give an example?

GA: For example when I became exposed to room-scale VR, at first I didn't know what to do with it. And then when I played around with different experiences or understood that sensations I thought: “Wow wouldn't it be incredible to go into a concentration camp?” [ed. Gabo is here talking about his VR documentary *The Last Goodbye*⁸³]. We did some tests and we tried to think about how the photogrammetry works within that. And then did some more tests. I'm always looking for things that strikes some kind of magic and what is in general interesting. In *Zikr: A Sufi Revival* which you saw or rather ‘experienced’ at IDFA. I had a general understanding, that I want the spectator to feel like s/he was taking part in the Sufi ritual. I was shooting it in 360, and I wasn't sure at first what the interactivity can be like. I also knew, that I will use a lot of music because together with stories I felt it was really unique and compelling. But you know, *Zikr: A Sufi Revival* was meant to me not to be a overt documentary [ed. done or shown publicly or in an obvious way and not secret]. I wanted to make something that not only the Sufis in Tunisia but also the other groups will use my project in order to get their message out and enhance their recruitment. I wasn't trying to make my own interpretation there. I just build something that would capture the spirit I was feeling when I was with them. So maybe it's very pro-Sufi. I took an unorthodox approach where I'm not looking at it from the classic lens of documentary.

MT: As VR docs are made with different assumptions, they involve a different relationship between filmmaker and the subject, and they prompt different sorts of expectations from audiences. What have you learned about the your audience’ expectations so far? What has changed? Are visitors looking for the “empathy machine”; the potential of VR for giving the user agency within immersive environments; or the potential for embodied interaction? Do they like to experiment, try something new, access of experience of another? Are you thinking about your audience while creating?

GA: I think about the potential audience very broadly: how can I continue to be unexpected and to surprise people in telling meaningful stories that emerge through new technology. Because social VR, before I did *Zikr: A Sufi Revival*, was and is mostly used for things that are very frivolous and trivial, according to my opinion. And they are fun and gamy and interesting, but I wanted to use that same mechanics to do something that I felt was a little bit more profound. That is the reason why I went to VR even before *Clouds Over Sidra*. It was roller coasters, unexpected narratives within technological dimensions and then the ideas that you do it and then

⁸³ *The Last Goodbye* is an award-winning, VR film that transports viewers inside the Nazi death camp Majdanek in Poland with Pinchas Gutter, the only member of his family of four to survive the Holocaust.

it inspires other people to want to do it as well! Which makes me very happy because then people realize that there's something else we can do and that there's a market for these types of stories. That's what's exciting. And I'm always thinking - it may sounds stupid - but if I think of one audience member I have, it's just it's - it really sounds pretentious - but I would be Werner Herzog, you know. Would he think that my piece is cool? (laugh)

MT: In one of your interviews, you said: “In creating new genres, the act of craft is important”. The element of storytelling is extremely important as well, but the art and presentation really matters. And I would like to ask you if the indexical quality of the image in VR docs still important in terms of staying authentic? Certain technologies and styles encourage us to believe in a tight, if not perfect, correspondence between image and reality, and the effect of lenses, focus, contrast, depth of field, color and high-resolution seem to guarantee the authenticity of what we see. They can all be used, however, to give the *impression* of authenticity to what has actually been fabricated or constructed.

GA: Indexical, so for example using real sounds you mean?

MT: Sounds, real footage or other kinds of traces of the reality.

GA: No, probably it is not important. I think it it's such a new medium, which requires so much experimentation. There is an enormous amount of craft, creative license that goes into my documentaries. In case of my documentaries, the words are real, but the tones are always mine. I feel like I'm creating a performance of the real world and real people.

MT: Documentaries adopt no fixed inventory of techniques, address no one set of issues, display no single set of forms or styles. Alternative approaches are constantly attempted, then adopted or abandoned. Prototypical works stand out that others emulate without ever wanting to copy them exactly. Some films serve as litmus tests that challenge the conventions defining the boundaries of documentary film. They push the limits and sometimes change them. The earliest critics, theorists, historians and filmmakers set up various canons of exemplary films, with some regularity among the canons occurring. Do you think that the canon of VR documentaries already exists? Would you put there *Clouds Over Sidra*? Are there other VR docs that represent landmarks in documentary film production? Are there any „VR moments“? VR movements? Are we in the beginning of creating a canon?

GA: I think there are watershed moments that create something new. A new possibility. And I think it has a lot to do with form.

I agree, I do think there is something very special about *Clouds Over Sidra* because I think it created something completely new with the form and created new sensations, feelings and possibilities. But when you asked about the canonical works, I immediately thought about *Notes On Blindness* (2016) by Peter Middleton and James Spinney - in its own way it was to me canonical. Because to me, it transmutes the form in very unexpected ways.

There is this dialectic between documentary storytelling and technology. Of course there have been many great 360-videos that happened after *Clouds Over Sidra* in documentary. And yet I think they're going to have a less of a wonder and they have a different energy because they're inherently going to be slightly building on or imitative of what that means.

MT: What other VR documentaries would you call "canonical" ?

GA: I have some issues with it but I will say *Zero Days* does something really really really interesting. I mean I felt it had some narrative lag, but I think it definitely took this into a different dimension. Journalistic VR pieces of Nonny de la Peña of course! And of course Asad J. Malik's *Terminal 3* which is a very magnificent experience, because it does something. For me it is the first significant work in AR documentary I thought that the performance was very special and will always be remembered.

MT: What about *The Enemy*?

GA: Yes, absolutely!

MT: In 1985 Janet Staiger, a theoretician and historian of American film and television, wrote: "Even filmmakers are involved in canon formation. Those films chosen to be reworked, alluded to, satirized, become privileged points of reference, pulled out from the rest of cinema's predecessors. As ideal fathers, these select films are given homage or rebelled against." Who do you think is the player in this landscape? Who else is involved in a canon formation and to which degree? Are institutions shaping canons? Do you think that an institutional framework impose limits and conventions for individual filmmakers who later need to accept them? Who do you think is really responsible for VR documentaries canon creation? Artists? Festivals? Other institutions? Or... Money?

GA: Money is important, for sure! But there are so many creators who are being inspired by world affairs, technological developments and most importantly their own imagination! I think that's fascinating as well that there is this kind of poetic distance that allows the imagination to think too!! But, yeah, festivals obviously have the strongest impact I would say, and their sort of “cohort of curators”, who are the real tastemakers and supporters of working with artists. But I don't think they are motivated by money! Let's say they are motivated by privileging new voices and diversity. I think that's a sign of the times but also it's a sign of a very very progressive cultural curators that without them and without festivals there would be no buzzers. Honestly, without *Sundance* and without *The World Economic Forum in Davos* there would be no *Clouds Over Sidra*. That's why I always care if my projects will be shown during the biggest festivals. My girlfriend even calls me “a festival whore”, but that doesn't disappoint me or embarrass me. Because thanks to festivals I can create new projects, and I am thankful for that.

Appendix 3: Interview with prof. William Uricchio (15.04.2019)

William Uricchio: So to begin.. If you have an orange right in front of you, and you want to understand how it's made: how does it work, what is inside. You would cut it, right? I assume you would cut it, or maybe you'd squeeze it - that would also work. But if you decide to cut it, you will realize that there is no right way to do it, because you can do it from many different directions. So I see Bill Nichols' project (ed. *Typology of documentary modes*) as one slice through the field of documentary, which reveals – to me – what are essentially rhetorical categories. That said, a few assumptions he makes, I find problematic. One of them is his whole notion of that a documentary is as wed to a particular medium: film – and it's a little bit slippery there.

Martyna Turska: Actually, what I am trying to find out in my thesis is whether these Nichols' rhetorical categories could work in other media forms. My case study is VR documentary, as I think that documentary filmmakers represent the reality in very different ways, using various qualities and modes of representation to construct this reality.

WU: One could easily argue that those rhetorical categories work in other media forms like VR or photography, literature or maybe even like theater. They are the kind of classic rhetorical categories that I believe work in a lot of places. What is crucial, I think, is to define how different these modes of representation work in VR than in photography or film.

MT: In your works on the emergence of new media forms and practices, you often use historical lens. In my thesis I am trying to examine, if the 7 traditional modes of documentary representation - *poetic, expository, observational, participatory, reflexive, performative, interactive* – have their “equivalents” in VR representations.

WU: So in that sense it's an interesting way to sort of have a comparative discourse, and check the stuff that's already been talked about in film and documentaries. The only problem I find in Nichols' work, is why would you limit the documentary to film? Probably because of 1926 John Grierson's linguistic argument...? So maybe for Nichols, VR documentaries that are made in 360-degree-video where a viewer can only look around are 'fact documents', not 'documentaries'? For me it is a crazy idea, that a 'document' is an unstructured look at the world, given the huge history of manipulation or false.

MT: Your notions lead to a question of new lexicons for new media, as well as new canonizations...? In 1985 Janet Staiger, a theoretician and historian of American film and

television, wrote: *Even filmmakers are involved in canon formation. Those films chosen to be reworked, alluded to, satirized, become privileged points of reference, pulled out from the rest of cinema's predecessors. As ideal fathers, these select films are given homage or rebelled against.* Virtual Reality is a new medium and thus needs new ways of thinking and talking about issues that are characteristic for it. Do you think that the canon of VR documentaries already exist? Is there a rationale for putting some order, grouping, classifying, and finding typicality of projects?

WU: Yes, I think there is a rationale, and I think that the canons already do exist. One good place to look for it would be *DOCUBASE*, or *MOMENTS OF INNOVATION* or IDFA DocLab. I think that one or two years ago they issued fridge magnets with their hundred top interactive projects.

MT: All interactive works together? Or only VR documentaries?

WU: No, sorry. This was the spectrum, so interactive forms that include VR and robots and, you name it: non-linear documentaries, 100 top and canonized. So, as you see, the boundaries are a little bit slippery. You could look at it as best pure technology, in other words there is VR, and there is AR and XR and you are using the similar headsets. But actually, you are using similar headsets to experience these projects. That is why I would argue, there's quite a difference you could make as well, so you could make a technological distinction which makes sense.

MT: And what about the canonization? Who is responsible for its' creation?

WU: I would argue, that a lot of people who are taking part in the canon formation are often the people with money, or people with money and fame behind them. That almost guarantees them the place and festivals.

I think that probably genres emerge from the cannon, to the extent that right now there's a lot of VR projects. I was just in Bogota and I saw tons of VR that will probably never be available for the broader audience, outside Colombia. Because... what is the reason that some VR projects travel and some not...?

MT: Money?

WU: Money, sponsorship, social networks. If you are thinking about what creates a canon, a good thing to read that I would recommend would be Howard Becker's *Art Worlds* (ed. updated and expanded ed. 2008). It's a classic book on painting, but as he is a sociologist, he sort of asks "well, what makes art – art?". Is it just great. And then he looks up for the reasons why a piece of art

has a value - it has to do with as micro elements as: how you get your pigments, where does the paint come from, who stretches your canvas.. You will see, that there's a hierarchy in all those things. That is why, there are good painters and bad painters, there is good canvas and bad canvas, you get good stretches and bad structures and then you are exposed in good galleries and bad galleries. He also argues that social structures are important as well. So I think that a canon reflects the power. An then, the tastes of those who have the power, and your taste could be oriented but it doesn't always correlate to what shows up in the in the festivals. And there's a bunch of stuff out there that I think it's interesting, but it will never be pitched up like for example *Clouds Over Sidra* by Gabo Arora.

MT: So if you are mentioning *Clouds Over Sidra*, that lots VR artists relate their works to, would you call some of VR projects as “ideal fathers” of VR documentary?

WU: Reference points, because “father” would suggest that it generates something

MT: Is *Clouds Over Sidra* then an important reference point? It’s often considered as a “first VR documentary”

WU: Here I would say, it is more like a landmark. Well, I think we don't have a good critical language for VR and its effects yet, so it is hard to say if other VR projects could be compared to *Clouds Over Sidra*.

MT: If a project is like it or is not?

WU: Yes. And those to me are kind of the aggregations or crystallizations that become known as genres. Because then people say “oh I want to do this”. It happened very clearly in the case of *Notes on Blindness* (2016) by Peter Middleton and James Spinney or *Snow Fall. The Avalanche at Tunnel Creek* (2012) by John Branch and published by *The New York Times*. It contained some new moving motions and it was a very image-heavy story. And people started to then say they were going to make a similar visual and have similar effects. It even generated a new language – people started saying “story scrolling” [ed. to interact in *Snow Fall* a viewer has to scroll a mouse] instead of storytelling and story scrolling.

MT: Gabo Arora uses the phrase “Story living” – I guess that VR will generate a completely new lexicon!

WU: Oh yes! I'm personally a big fan of "Story finding" – it comes from theater, games or environments like constructed *Disneyland* or like Via Dolorosa in Jerusalem – there is a lot of stuff there that you have to find! It may be relevant to mention here, that in Augmented Reality and Virtual Reality, it is all about finding a story. Carlo Ginzburg, Italian scholar and cultural critic, argues that these mediums take their tradition from hunting. He compares a viewer to the hunter who has to walk through the world, looking for signs, footprints. That's how most of narrative forms are constructed. Or just as Harry Potter it's not a narrative in the literary sense until it's over, until you've completed the story arc. So, what I'm actually trying to argue, is that things like literature, museum experience, or theme parks - they all have been exemplary forms of this new narrative forms of AR and VR projects. They may look like normal environments to some people but in AR and VR cases, the viewer has agency to build and find a story within a constructed narrative.

MT: And I wanted to ask you if there are any „VR moments“? VR movements? Not yet? In the future?

WU: VR moments are mostly connected to technological developments. There was a boom in the early 90s, and now there's a boom again, when there is more – again - money invested. Actually my impression is that money is shifting away from VR right now and going towards AI. But in VR, the technology changes dramatically and very rapidly. And it's very difficult to tell the difference between, let's say, HTC or Oculus. And, it is already on its third technology maybe its fourth technology? Surely the stuff you would buy now will be very old in two years. Is that a problem? I don't know. The bottleneck is still a problem - that only one person can experience a project, not like with films that are available in vast locations and in the same time. That's deadly.

MT: There are projects like *Zikr: A Sufi Revival* by Gabo Arora, where four people can share the experience.

WU: Well there's also *The Enemy* (2017) by Karim Ben Khelifa that we incubated in MIT Open Documentary Lab and it can be experienced by I think about 30 users in the same time now. It's a really incredible piece, I think.. So all to say there's probably a big new technology shift coming in in VR that's also called for obviated rendering, but that's in the lab – it is said to be more accurate, more responsive, more dimensional and more engaging. And there is a lot prototype stuff - that pretty unlike film stuff which entered the world - will not change much.

MT: Staying with the topic of users/viewers/spectators, I want to ask you about a VR audience. Do you think that there are some themes or fashions that the audience is looking for? Are they looking for the “empathy machine” for the potential of interacting?

WU: So I think there are different audiences to begin with. There is an audience looking for the “empathy machine” - and those I would call “marketers and social change”, or “promoters”. For me, that is actually the return to the “effects theories” that I thought we killed in that in the 1960s and 70s. There's a tradition of “effects research” that comes from the 1930s and 1940s which is akin to Nazi propaganda and advertising and the idea that media can change people. So the empathy with machine argument goes right back to that argument: “This medium can change you”.

Another audience, that I'm usually with, is the festival's audience, which is looking for projects that they heard about. The buzz matters! (laugh). And these people are looking for cool, new ideas. One thing that I find really interesting is that you hear these people often talk about how good VR system is. But once people start to watch it, they start to see what doesn't work – no matter how good it is. And I believe that kind of keeps pushing that threshold if you're going to make the “reality claim”.

And in terms of the mass public - I have no idea what they are looking for.

MT: The “reality claim” is closely linked to the indexical quality of the image. Certain technologies and styles seem to guarantee the authenticity of what we see. They can all be used, however, to give the *impression* of authenticity to what has actually been fabricated or constructed. Do you think that the indexical element is as important in VR documentaries as it is in cinematic documentaries?

WU: Yeah, I would kind of argue. First of all because VR projects are not shot like films... The index argument got big when ‘digital’ entered the ‘picture’. An it is important to know how the digital camera works, because what we actually see is processed data – so there is no inherent image like in that first data scan. In digital, that's could just be data, numbers. And thus for the “hardcore indexical people” the digital image is a problem.

MT: Yes, but for example in *Notes on Blindness* or in *Project Syria* - two Computer Generated Imagery VR documentaries, we hear true, indexical recorded sounds. Wouldn't you agree that it make these pieces “more real” ?

WU: I can imagine and understand this argument, but it wouldn't be my argument. When you want to depart from realism, indexical elements help creators to build the 'truth claim'. I understand the amplified value of those moments, whether we call it 'indexical' or..

MT: "Trace-ical" ?

WU: That is the argument that goes back to Charles Sanders Peirce and his 'index'. There are a lot of people who take that argument. I am just a little bit cynical about it.