# ANIMATION DOCUMENTARIES AND BIODIVERSITY ISSUES— IS 'PLANT BLINDNESS' A CONCEPT WORTH KEEPING?

INSIGHTS FROM THE PORTUGUESE ANIMATION DOCUMENTARY A JOURNEY TO CAPE VERDE (2010)

# M. ALEXANDRA ABREU LIMA INIAV, I.P.

## Abstract

From the contemporary panorama of creative media, the animation documentary *A Journey to Cape Verde* (2010, *Viagem a Cabo Verde*) is analysed in terms of its content concerning biodiversity and plant issues. The concept of 'plant blindness' is revisited, a term introduced by Wandersee and Schussler in 1998 (Allen, 2003) to describe "the inability to see or notice the plants in one's own environment" and their importance in the biosphere. Some future considerations are discussed. It is hoped this case-study displays a picture of what can be done to improve collective knowledge about biodiversity issues and could inspire and help others to develop awareness raising projects about them.

**Keywords:** 'Plant blindness', Creative media, Animation documentary

#### Introduction

Both animation and documentary are notoriously difficult to define (Hight, 2008, p. 9)

The media used by naturalists, scientists and other stakeholders to convey messages about biodiversity can include documentary and narrative films, TV, and radio programs aside from journalism and internet activism.

Documentaries are an instrument through which filmmakers present versions of reality and personal points of view on socio-political, historical, and environmental matters.

As is the case with many other genres, documentary is considered as being in a continuous evolution, responding, in Hight's (2008, p. 10) view, to changes in the wider social contexts of their production and to developments in media technologies. These developments, namely in the last two decades, with huge technological advances in digital and computer-generated imagery, have changed the animation landscape, making the definition of animation more problematic (Martinez, 2015).

According to Hight (2008, p. 9), animation as a set of techniques "has long been incorporated into documentary culture" and, concerning this intersection between animation and documentary, he posits that "a full account of documentary animation within documentary as a whole could begin as early as Eadweard Muybridge's experiments in animated sequences of photographic stills, and offer a trajectory [...] through to contemporary examples [...]."

Muybridge's multimedia show, which alternates still views with animations and is produced with projecting apparatus, was reviewed by Fresko (2013), who highlighted its role in entertaining and educating audiences: "[...] dynamic process animating still images into motion, [...] he bred truth through illusion and helped prepare audiences for an emerging cinematic sensibility."

An extensive overview of the history of animated documentary has been conducted by Roe (2011), considering that animation can show and evoke things that elude live action. Acknowledging that animation has often involved some degree of drawing, it is worth mentioning that analysis of relevant data concerning the history, processes, and evolutionary qualities of animated sketching are being studied by other authors (e.g. Torre, 2015).

Elsewhere, Chang (2014) has discussed the form of the evolution and analysis of past and present theoretical models of animation to categorise their types (and liveaction films), with the scope of this paper by Chang, Chung and Huang (2014) centred in the analysis of animation documentary aesthetics and discourses about biodiversity and plant issues.

These issues are intertwined with the acknowledgment of current human pressures on Earth and their consequences (e.g. loss of biological diversity and ecosystem functions; spread of invasive species; pollution, food insecurity, declining water supply and quality, and the more rapid spread of infectious diseases), which are being incorporated in a conceptual framework known as *coupled human and natural systems (CHANS)* (Chen, 2015).

Within this framework, the documentary *A Journey to Cape Verde* (2010) is briefly analysed in this paper in terms of its role in conveying messages about natural contexts and their coupling with development issues.

In this animation documentary José Miguel Ribeiro (director and scriptwriter) follows a personal two-month-long journey he had some years ago to the islands of Cape Verde during which he used neither his mobile phone nor a camera. He brought with him two paper travel notebooks, on which he did his drawings and writings. Three years later, these written notebooks and visual data were used and adjusted to create the animation documentary film. In an interview, José Miguel Ribeiro (2012) explained that for the documentary's final editing process it was necessary to travel to the Cape Verde islands again, this time with filmmaking devices, to record the real sounds of the wind, sea, peoples, guitars, and everything that could be heard to complete the whole animation project.

Particular emphasis was given to plant resources: although plants constitute the basis of the food chain and fulfil other important human needs (e.g. medicine, textile, etc.), their huge relevance is not always highlighted as it should be, leading to what has been called 'plant blindness'.

#### **Plant blindness**

Plants fuel life on Earth by tapping the sun's energy. But if plants are the main mediators between the physical and biological worlds, why do most people tend to appreciate animals so much more than plants? (Allen, 2003, p. 926)

The term '*plant blindness*' was introduced in 1998 by Wandersee and Schussler (Allen, 2003, p. 926) after years of discussion, literature searches, and investigation. It has been defined as "the inability to see or notice the plants in one's own environment, leading to the inability to recognize the importance of plants in the biosphere and in human affairs." Plant blindness also comprises an "inability to appreciate the aesthetic and unique biological features" of plants (Allen, 2003) and "the misguided, anthropocentric ranking of plants as inferior to animals, leading to the erroneous conclusion that they are unworthy of human consideration." More recently, it was recognised that "this is apparently a problem not just among students, but in the general population" (Chang, Chung, & Huang, 2014, p. 2).

Two decades ago, Clark (1995, p. 373) discussed the challenges around the growing field of virtual nature and ecological consciousness. By then it was stated that "ecologists have devoted considerable attention to the ways in which knowledge, wisdom or intuition arise out of immersion in 'wilderness' [...]." To this end, Clark stated that reliance upon "representations of nature - textual, photographic, cinematic" was frequently used to raise consciousness about environmental issues, although other authors raised concerns about the possibility of "computer-generated simulations of nature" broadening the gap between humankind and the rest of the natural world.

This and other topics about computer and interactive learning environments are extensively reviewed elsewhere (Chang et al., 2014). This paper explores the potential role of animation documentaries as tools to counteract 'plant blindness'.

#### Documentary film-making: The animation documentary *A Journey to Cape Verde*

However, what do audiences want from nature documentaries? [...] From the outset, the nature documentary has exhibited a tendency toward a particular visual experience and viewer disposition – specifically, the unquenchable desire for an encounter with the sublime. (O'Grady, 2012, p. 161)

According to O'Grady (2012, p. 159), the history of documentary film keeps evolving, and "its styles (e.g. newsreels, propaganda, cinéma-vérité, direct cinema and so on) and its variants (e.g. docudrama and mockumentary) suggests that documentary consciousness and documentary filmmaking may yet discover new species."

In this sense, the animation documentary *A Journey to Cape Verde* can be seen as an interesting "new species" which adjusts, partly, to Oldham's (2014, p. 708) statement of "reportage drawing" as "illustration's equivalent of documentary filmmaking. Broadly it can be defined as drawing in the field, on location, observing the actuality of life as it happens in the moment." According to this author, in "reportage drawing," like in documentary, artists are free to focus their attention on whatever subject matter they choose, including "the social, the political, or the journalistic as a means of engaging meaningfully with the world around them [...]."

In agreement with this, the director of *A Journey to Cape Verde*, José Miguel Ribeiro, has somehow focused his attention on the natural characteristics of these islands, revealing in an interview the "Landscape surroundings of those islands, some black, others more yellowish, with an almost rare, but precious, green plant cover; and the water which is a valuable good [...]" (Ribeiro, 2009).

### Methodology—A Journey to Cape Verde film viewing and analysis

The nature of this intersection between animation and documentary suffers from the relative neglect of both documentary and animation researchers (Hight, 2008, pp. 9–10)

In agreement with Aldous (2014, p. 1049), who considers the purpose of film (and indeed all art) to be twofold—"first, it must entertain, or at least captivate the viewer; and second, it should make a profound statement about the environment that surrounds both artist and viewer"— the viewing of *A Journey to Cape Verde* clearly shows us in an entertaining way

the challenges faced by the people of the Cape Verde islands, where drought, water scarcity, and plant cover are relevant issues.

It is worth mentioning the following scenes from the film viewing of *A Journey to Cape Verde*:

03:47–05:22–At Santiago island interior, in the region of Assomada, the big "Ceiba" or "kapok tree" (*Ceiba pentendra* (L) Gaertn) was even bigger than the photos I have previously seen in Portugal. "I have to take this tree with me"–while starting drawing the big tree in several notebook sheets)

07.55–Goats eating "paper" in an arid landscape [...]

08:14–I started to climb a land full of dark cutting stones [...]

11:00—"Here everything is drought [...]"

11:34-[...] an illustration of a plant.

The animated drawings, their colours, and the corresponding sounds and music are conjointly able to convey messages about the main characteristics of the Cape Verde landscape. Assuming that in modern culture, among all mediums, cinema is considered as one of the more popular, Aldous (2014, p. 1049) highlighted that the creators of film content bear a "responsibility to ensure that the potential of this utility is not squandered."

It is interesting to remark that beyond this responsibility to convey relevant messages about nature and biodiversity to wider audiences, some of the "most profitable documentaries in history are nature films and mini-series, such as *The Blue Planet* (2001), *Planet Earth* (2006) and *March of the Penguins* (2005). [...] The success of each of these releases is attributable to a three pronged strategy of technologically enabled spectacle, old-fashioned storytelling and human-interest narration" (O'Grady, 2012, pp. 163–164).

According to this author, "Cousteau's documentary era" and "Walt Disney's true-life adventure short films" [...] arguably cemented its global "present-day formula: combine real locations with music, a narrator – either on-camera or in voiceover – and a narrative arc conveyed through dramatic editing and composition" (O'Grady, 2012, p. 163), which can also be found in this animated documentary.

Beyond *A Journey to Cape Verde*, other animation documentaries may focus on nature and botanical subjects as an input to build greater awareness, particularly among younger generations, of the importance of biodiversity, nature conservation, and environmental issues, such as the successful case of the video "Conversing with Aoteaora" about New Zealand (Parks, 2014).

These animation documentaries may integrate some educational initiatives that are able to function, among other things, as starting points to elicit debate around the issues displayed, such as the value of biodiversity, which continues to be considered—as it has been for the last several decades—as having a constantly renewed future value that "[...] can only increase, as the worldwide rate of extinction accelerates" (Colwell, 1994, p. 220).

#### Concluding remarks

The nature film, a century after its inception, still prescribes an antidote to modernity, even as modernity – and the documentary, as well – has pushed the natural farther from view. (O'Grady, 2012: 165)

Animation documentaries, along with short storytelling videos and other media products, can be perceived as useful tools for awareness-raising initiatives about biodiversity, genetic resources for food and agriculture, nature conservation, and environmental issues. It is worth mentioning that animation films can be of high value for this purpose. As Chang (2014, p. 1473) described, "[...] before digital tools permeated heavily into the filming procedures in the last decade, the appearance of the images produced by animation and live-action techniques are so distinctive, even unsophisticated children can easily tell the difference and are in favor of the images produced with animation techniques."

In addition to this, another added value of animation is patent in Roe's (2011) analysis, which considers that animation has broadened and deepened documentary's epistemological project by opening it up to subject matter that previously eluded liveaction film-making.

It is hoped that other enthusiasts will further develop other animation documentaries (aimed at reaching wider audiences, including younger generations), focusing on the need to "slow the destruction of natural habitat" (O'Grady, 2012, pp. 166–167) and on plants' relevance to human societies, as it is considered likely "[...] that climate change will necessitate more international exchanges of genetic resources as countries seek to obtain well-adapted crops, livestock, trees and aquatic organisms" (Food and Agriculture Organization of the United Nations, 2015, p. xvi).

#### Bibliography

Aldous, J. (2014). Engaging in societal change: A filmmaker's responsibility. In A. C. Valente & R. Capucho (Eds.), *AVANCA | Cinema 2014* (pp. 1049–1054). Avanca: Cine-Clube de Avanca.

Allen, W. (2003). Plant blindness. BioScience, 53(10), 926.

Chang, Y.-J. (2014). Toward a new theoretical framework for the form and content of animation in digital age. In A. C. Valente & R. Capucho (Eds.), *AVANCA | Cinema 2014* (pp. 1473–1478). Avanca: Cine-Clube de Avanca.

Chang, R.-C., Chung, L.-Y., & Huang, Y.-M. (2014). Developing an interactive augmented reality system as a complement to plant education and comparing its effectiveness with video learning. *Interactive Learning Environments*. doi:10.1080/10494820. 2014.982131

Chen, J. (2015). Coupled human and natural systems. *BioScience*, 65(6), 539-540.

Clark, N. (1995). Being consoled? Virtual nature and ecological consciousness. *Futures*, *27*(7), 735–747.

Colwell, R. K. (1994). Human aspects of biodiversity: an evolutionary perspective. In O. T. Solbrig, H. M van Emden, & P. G. W. J. van Oordt (Eds.), *Biodiversity and global change* (pp. 211–224). Wallingford: CAB International.

Food and Agriculture Organization of the United Nations. (2015) Coping with climate change – The roles of genetic resources for food and agriculture. Rome, FAO.

Fresko, D. (2013). Muybridge's magic lantern. Animation, 8(1), 47-64.

Hight, C. (2008). Primetime digital documentary animation: The photographic and graphic within play. *Studies in Documentary Film*, 2(1), 9–31.

Martinez, O. O. L. (2015). Criteria for defining animation: A revision of the definition of animation in the advent of digital moving images. *Animation*, *10*(1), 42–57.

O'Grady, D. (2012). "This is an adventure": *The Life Aquatic with Steve Zissou* and the spectacle of nature documentary. *New Review of Film and Television Studies, 10*(1), 152–168.

Oldham, A. (2014). Drawing on Topolski: An exploration of the relationship between reportage drawing and documentary filmmaking. In A. C. Valente & R. Capucho (Eds.), *AVANCA | Cinema 2014* (pp. 708–714). Avanca: Cine-Clube de Avanca.

Parks, C. F. (Director). (2014). *Conversing with Aoteaora*. Video retrieved from https:// vimeo.com/99425488

Ribeiro, J. M. (2012). viagemCaboVerde Sol [Interview]. Video retrieved from https:// vimeo.com/63666299 [Portuguese]

Ribeiro, J. M. (2009). Uma «Viagem a Cabo Verde» em versão animada [Interview]. Video retrieved from http://videos.sapo.pt/jFLWu4ZCZZqyWzJzzuzs [Portuguese]

Roe, A. H. (2011). Absence, excess and epistemological expansion: Towards a framework for the study of animated documentary. *Animation*, 6(3), 215–230.

Torre, D. (2015). Boiling lines and lightning sketches: Process and the animated drawing. *Animation*, *10*(2), 141–153.