

University of Toronto Scarborough
Department of Physical and Environmental Sciences

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Environmental Science
2012 Fall Outline

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Lecture time: Wednesday 7pm ±9pm
Location:IC130

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COURSE OBJECTIVE

The objective of this course is to provide students of environmental sciences and media with a behind-the-scenes view of the challenges and choices involved in the production of environmental films, and to explore the dynamic between environmental filmmaking and environmental science.

Television and film documentaries offer an intriguing and affecting view of the world. They are a source for this information. Filmmakers seek to document endangered species, threatened environments, explore remote and exotic landscapes, and access the impact of new technology and development on the natural world. But what are the influences at play in the making of such a documentary? How are complex situations distilled into hour long, narrative and scene-driven TV? In the quest to both tell the truth and tell a good story, what is lost and what is gained?

In this ten-week course, students will focus on a particular theme and deconstruct a specific documentary film (or films) to illustrate and explore that theme.

involved in the making of each film, who will be on hand to discuss and defend their choices.

COURSE EVALUATION:

In addition to weekly preparation and class participation, students will be asked to complete two major written assignments, one at mid-

Mid-term Assignment: A thorough minute-by-minute analysis and critique of an environmental film, focusing on the variety of ways that environmental science is incorporated into the film, the elements of the storytelling that affect, enhance and style, characters, scenes as they impact the effectiveness of science. (40%)

End-term Assignment: Students will be asked to produce a thoughtful and credible proposal for their own environmental film on a subject of their choosing. They will be asked to write up a formal treatment (10-15 pages) for an environmental film that they might theoretically propose to a broadcaster, including subject matter, theme, thesis, scientific groundwork for the story, methods of

no depiction of a rapidly declining habitat. The suggestion is that the broadcasters/filmmakers can be so focused on the telling animal moment that they choose to discard or neglect reporting that the immediate environment is so compromised that the animals long term survival prospects are seriously threatened. There are concerns too, that as a genre, wildlife filmmaking can be lacking in content, that films can morph into one long lavishly photographed spectacle. Eye candy for the armchair traveler. A kind of animal porn, where scenes of violence in particular are exploited for dramatic value.

That said, the genre re

increasingly constrained wildlife population.

The session will focus both on the environmental issues facing conservationists and on the practicalities of filmmaking in these regions. How do you reconcile the needs of communities with those of threatened species? In the Congo film, there are obvious personal safety and health issues, and some very prickly situations regarding access. There are also storytelling challenges. How do you strike a balance between the need to convey information and the sheer drama of many of the scenes. Similarly, in the second film, how do you convey the big picture, give a sense of shifts in policy over an extended period of time?

Preparation for Class: Possible reading on classic conservationist, Richard Leaky as well as general research on conservation dilemmas in Africa.

5. October 10 - Disappearing World II - environment, culture and knowledge.

All across the planet loss of habitat and overdevelopment of the natural environment are eradicating ancient cultures, languages and customs. This loss is particularly acute amongst nomadic peoples, the last of the hunter-gatherers. Survival has been dependent on exceptional knowledge of the natural world, which provided food, tools, weapons, shelter, and medicine. Much of that knowledge will likely vanish along with the culture unless recorded. Disappearing World (Part I) explores how anthropology films draw attention both to the human cost of large scale development, but also to the loss of knowledge accumulated through thousands of years of day to day awareness of the interconnectedness of the natural world, and of the individual properties of trees, plants, insects, animals. Development may bring a better standard of living for many, but it comes at a price.

Films of this kind have particular challenges. Firstly, as so often in documentary, there are issues both of access and trust, but in the case of anthropology films these changes are often compounded by the isolation of the community, or its reluctance to inter-act with the outside world. The logistics of filming in a tropical rain forest or in a desert war zone are also formidable. There are tech issues, health concerns, and increasingly, security threats.

Anthropology films also demand a high degree of scholarship of an especially-unusual nature. Academic research is often continuing over an extended period of time. Filmmakers have to be aware of a broad range of specialisms, some societal, others relating to ritual, religion, medicine, botany, food, the mechanics of survival in sometimes seemingly inhospitable places and terrain. How do you distill so much information, make choices regarding the relative weight or importance of such information? How do you visualize this wealth of knowledge? How do you transform such a mass of information, and in many cases, emotion, into a narrative, a single unfolding story? Finally, we assess the value of documentary films as a record of a disappearing world.

In this session, we focus on the documentary *The Last Nomads*, from the mini-series *The Adventurers* and *The Nature of Things*, which documents the dying days of a nomadic hunter-gatherer culture in the rain forest of Sarawak, Borneo. Director Andrew Gregg joins us to explore an extreme example of how loss of habitat (70% of Sarawak forest is licensed for logging) can decimate a

Gregg travelled to Sarawak along with linguist and anthropologist Ian McEnzie who has been studying and documenting Penan language and culture since 1991. As the expedition heads deeper into what remains of the 130 million year old forest it becomes increasingly evident to McEnzie and Gregg that they are documenting the end of a culture.

Preparation for class. Research on the Penan people and their struggle against logging in Sarawak.

6. October 17 - Disappearing World III, The Real Avatar

In *Avatar*, an indigenous (but alien) people fight off an attack by marauding (human) inter-planetary energy invaders. Despite a seemingly impossible imbalance in weaponry, they win. In real life the Hollywood feel good plot line is not as simple, or the outcome as positive. The constant search for timber and for new oil and gas deposits has prompted global tensions relating to the ownership and exploitation of lands that indigenous peoples once thought their own.

The scale of proposed developments (as with the Canadian oil sands) is immense. In Peru a massive area of forest land, the home of various tribal communities, has been licensed for exploration. Some seventy-two percent of Peruvian jungle is zoned for oil development alone. Inevitably, as in the Cameron movie, there was angry opposition leading, in one event, to the deaths of twenty three Peruvian police and (the number is contested) ten protestors. Elsewhere communities are divided, some welcoming development as the source of new jobs, others rigidly opposed to change of any kind. The simplicities of *Avatar*, the movie, however well meaning, do not reflect the reality. In this case, it bears scant semblance to life!

In this session we analyze two films that document the choices facing indigenous communities when their home and way of life are threatened. One will focus on the conflict over land use in Peru, the other will explore issues here in Canada. Filmmakers Roberto Verdecchia, the director of *The Real Avatar* and tba (Geoff Bowie or Mike Fuller) discuss the choices they faced during production, the difficulties of access, concerns about personal security. How well was environmental science integrated?

play. Hunt Oil, for instance, the American based licensee of much of the Peruvian territory simply choosing not to participate!

Preparation for Class: General reading on development issues as they impact indigenous peoples.

7. October 24 - Oil Sands.

The scale of development is colossal, the payoff massive. Government estimates suggest that by 2020 production will reach 3.3 million barrels a day. Currently some six hundred square kilometers are impacted, another thousand kilometers licensed. But although big business is e tc89197.4 ss

8. October 31 – Climate Change

The scale of the productions was extraordinary. Two major series, one in the Arctic, and the other in the Antarctic, each documenting firsthand the growing impact of climate change on the region. In the first voyage, the expedition ship, a three-masted schooner, the *Sedna* (which the filmmakers had purchased and re-equipped!)

The series *Geologic Journey* set out to educate its audience on where to look, and how to interpret what we see. It was filled with surprising facts, telling viewers to their astonishment that Toronto was once the site of a mountain range the size of the Himalayas, that the neighboring city of Detroit sits on a bed of salt, the remnants

GENERAL INFORMATION ON ASSIGNMENTS

Evaluation of assignments takes into account organization and structure, style and presentation, as well as research and content. Writing quality and content are both considered in grading. Your work will be graded by a teaching assistant (TA); if you have a question or problem with the grade you receive, consult the TA. Your grade may be revised up or down based on the review.

Your assignments must have a plain title page with the title of your assignment, your name, course number, the date, your student number, and the instructor's name. Staple your assignment in the upper left corner; do not use folders, cover slips, or binders.