Review of “Glacial Balance”

Directed, produced, photographed, and edited by Ethan Steinman

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AT THE HEART OF ETHAN STEINMAN’S DOCUMENTARY FILM are the everyday, current effects of melting glaciers on humankind. It is especially the small-scale farmers of the global South whose lives Steinman seeks to understand. But he also interviews climate change research scientists, and for one of these – Lonnie Thompson – a far more universal concern underpins his research. This is the preservation, for some unknown future, of core samples of glacier material that span millennia. The gems within this preserved material are fragments of plant residue that may give us new knowledge of a distant climactic past. The theory goes that once we know how climate has been in the past – as preserved in the pristine core samples of ancient glaciers whose secrets are often only revealed at high altitude sites – we can then more clearly understand just what it is that humans are adding to the climate change equation. That the glaciers of South America are now rapidly disappearing adds pressure to this already passion-filled quest.

From the scientists’ perspective, here is the catch: when glaciers “retreat,” they also reduce. This reduction comes at the top layer of the glacier as global temperatures rise and less snow accumulates. But it occurs at the bottom of the glacier, too, as massive pressure-packed glacial snow – now ice – is eroded by meltwater that flows underneath the glacier. As a glacier’s ice melts, with it go priceless fragments of plant material. For Lonnie Thompson, this means the loss of crucial climate information about the past – an off-hand shrug, an added insult to the injury that is climate change itself.

In this film, we find represented both the most practical and land-rooted labour of small-scale farmers, and the highest theoretical work on climate change. Curiously, both of these groups share high-altitude environments in their work. For small-scale farmers of the Andean countries between Colombia and Argentina where this film is shot, the concerns are more proximate and personal. The tiny size of their farms

— often less than two hectares — makes them more agile: they can change farming practices by moving locations or adopting new strategies quickly. But their small size also makes them vulnerable and invisible. They are vulnerable because their lives depend on the success of their work, and their work is implicated in the diminishing source of the water necessary to grow food. They are invisible because they have little cultural power and voice. This film goes part way to increasing this voice.

Baltazar Ushca, for example, is one of the last people to collect and sell ice from glaciers. He now has to go higher in altitude than he did a few years before, to find suitable ice. Small coffee growers will have to relocate higher, as the climate warms. Farmers in Ecuador are choosing to grow quinoa over potatoes, because quinoa requires less water. It is one thing to take water from a stream that you know will be there forever; it is quite another to use a glacier's last fast flush before its ultimate expiry. These farmers know the difference, and throughout the Andes, they already feel the effects of climate change as both an environmental alteration and as a psychological state.

The film-making itself matches the now pastiche nature of glaciers. The camera is often hand-held, with little evidence of the use of steadycams; wind static is frequently heard in interviews; stories of farmers are interspersed with those of scientists; and there is no voice-of-god narration to summarize and give the "truth" about glaciers and climate change. Instead, the information presented comes from the accumulations of layers of multifaceted voices in the same way a glacier comes into being. And from the first stunning shot of a camera mounted in a core drilling rig, which sees the ice change as it quickly rises to snow level, the imagery goes far beyond interviews to the land itself, as it shows the effects of a changing climate.

The artistry of the glaciers themselves is meshed with the landscape-changing artistry of the small-scale, adaptive farmers. The purpose behind these farmers' solutions is not beauty, but survival; still, their solutions are beautiful and their various adaptations indicate an alternative path to human development that might address some aspects of climate change. This path is based on small-scale adaptive change, with life needs in mind, not a large-scale monolithic greed-based economy.

This is a film that could not have been made a decade ago: it was clearly completed on a (nobly) small budget, and ten years ago, small and portable cameras delivering high-definition video quality were not easily sourced. Despite its modest roots, Steinman has avoided the "simple solution" traps that documentary film makers often succumb to. He has maintained the *métissage* quality of the film by including differing opinions — even including one researcher who apparently seeks to see the bright side of climate change.

The film works. Despite occasional excursions into manure composting and methane production that have only passing relevance to the film's central thesis, the film manages to combine divergent opinions to provide both scientists' theoretical understandings of climate changes, and farmers' responses to it. The movement between experience and explanation is helpful. This is a noteworthy film in the history of documentary film-making: it shows what can be done by a small crew with a passion to tell an important story, from both the ground up and from the science down.