

*Growing Glaciers - Indigenous Expertise and the Making of Scientific Knowledge
(preliminary title)*

Anna-Maria Walter

In the steep mountain valleys of the Karakoram-Himalaya ranges, any form of agriculture depends on irrigation. In this high arid desert, stone-built channels bring cold and muddy melt water from the surrounding glaciers to terraced fields and orchards. Since cultivated land is extremely rare, local populations have grown resilient to scenarios of glacial draught. The traditionally intimate relationship with the glaciated landscape expresses itself in anthropomorphizing terms such as characteristics of ‘male’ and ‘female’ glaciers. When big blocks of ice from a male and a female glacier are brought together, they can create ‘offspring’ and a new glacier grows. Such “glacier marriages” have been a regular practice until the Islamic radicalization of the 1980s. Global warming has now brought them back on the agenda. The mating procedure is accompanied by a multitude of rituals and shamanistic supervision to pacify the fairies, the guardians of the heights. In this volatile environment, local cosmologies have long acknowledged that even seemingly passive entities like glaciers have an agency of their own. More-than-human relations with the landscape demand attunement and call for a labor of care.

In recent years, local scientists and NGOs have taken up the topic and dedicated themselves to collecting centuries-old local knowledge, trying to find scientific explanations, doing field tests, monitoring them, and even to developing new techniques, such as collecting avalanches or creating artificial ice towers similar to the famous ice stupas from neighboring Ladakh, India. The technique of spraying water to freeze into ice has also been explored by pilot projects in the Alps in the attempt to save glaciers such as the Morteratsch in Switzerland.

In the intensively cultivated and populated European Alps, researchers have paid heightened attention to the conservation of ecosystems. While they are alarmed by the quick rate of melting ice and its destabilizing effects for mountain slopes, techniques like covering glaciers with tarp are debated controversially. Besides looking into cases of past and current preservation efforts in both mountain ranges, this project will bring different forms of relating to and engaging with the cryosphere into conversation. The goal is to challenge the hard sciences with alternative forms of knowledge. By initiating avenues for exchange and collaboration, the project aims to overcome typical modes of knowledge extraction and to question the epistemological sovereignty.