



The Ólfusá is Iceland's largest river by volume.

## DEVELOPMENT

# Dammed dreams

**Monya Baker** is swept along by a documentary film tracing humanity's complex relationship with water.

Environmental degradation has never been so gorgeous. Over its 92 minutes, the documentary film *Watermark* deluges viewers with astonishing images of dry riverbeds, bizarre irrigation schemes, dams and city-scale aquaculture. The work of photographer and co-director Edward Burtynsky, co-director Jennifer Baichwal and cinematographer Nick de Pencier, the film is the fruit of a five-year odyssey in which Burtynsky recorded how water has shaped humanity, and vice versa. Shooting in ultra-high-definition video, he and his team specialized in aerial shots. They hoisted cameras up flagpole-high winches, and shot through the open floor of a helicopter and from airborne drones with cameras flying on a gyro-stabilized mount.

The documentary covers some 20 stories across 10 countries, filming everywhere from within a glacier to far above Earth. It shows how water is studied, diverted and polluted for profit and for pleasure, with eye-popping effects on communities and

landscapes. This is no call to action, however: Burtynsky says that his images could fit as well on the cover of a mining company's corporate report as in an environmental fund-raising campaign. But the images do carry a message.

Most start as mysteries. The film begins wordlessly, with storeys-high sepia splashes that finally resolve into a desilting project at the Xiaolangdi Dam on China's Yellow River. This cuts quickly to acres of baked, cracked mud: the ghost of a Mexican river that no longer meets the sea. "Once, the river was beautiful," a small, wrinkled woman, a former local resident, says in Spanish. As if afraid that she may be remembering a dream, Inocencia González Sainz recounts how bountiful fish were in the Colorado River Delta, now a desert because of dams — including the Hoover Dam, less than an hour's drive from Las Vegas, Nevada.

A shot of what appears to be the night sky

**Watermark**

DIRECTED BY EDWARD BURTYNSKY AND JENNIFER BAICHWAL  
2013; in cinemas now.

comes slowly into focus, gradually revealed to be stacks of gleaming metal cylinders — hand-annotated in black and filled with ice cores drilled from deep within a Greenland glacier. They are also core to the film's scientific content. Jørgen Peder Steffensen and Dorthe Dahl-Jensen, who study the cores, explain what they reveal about ancient climate, and how easily climate can flip between stable states, some inhospitable to humans. Infusing water with awe, they tell how Earth's oceans were probably delivered by comets.

Burtynsky captures large-scale water-control efforts, both ancient and modern. In the steeply terraced rice paddies of China's rural Yunnan province, a teenager sporting a pink-sequined bowler hat spends his days in solitary walks as a "water guard", making sure that no one shifts the carved logs that allocate streamflow to his and other families' fields. Time-lapse photography of the construction of the Xiluodu Dam in Yunnan shows a month's worth of water turning land into reservoir; the footage then slows, zooming in on a spider that has futilely climbed to the top of an island of debris, its searching feet finding water on all sides.

Burtynsky's lens does not neglect the developed world. One sequence starts inside a chlorinated swimming pool. As the shot pans up we see that the pool is a huge tub of concrete that is itself sitting in water on a reconstructed "waterfront" in California. The curlicued streets are dotted with identical houses, many with a pool jutting into a river delta. The excess is at once disgusting and beautiful.

In a sequence on farming, a helicopter flies over a disturbingly artificial landscape of green and brown circles in Texas. They are created by long, rotating irrigation pipes that drain the Ogallala Aquifer beneath faster than it can be refilled. A helicopter pilot tells Burtynsky that a volume greater than Lake Erie has already been consumed.

Water can be trashed as well as taken. At a thirsty tannery in Dhaka, preternaturally blue waste water pours untreated into the Buriganga River. A chemist at the plant dispassionately describes the toxin-laced tanning process. In one scene, sari-clad women wearing black rubber gloves pack up piles of hide; they stand on the chromium-laced scraps in bare feet.

In a metaphysical but scientifically accurate discourse, an indigenous Canadian explains water as the stuff of spiritual connection. From a canoe in the middle of a boreal lake in British Columbia, he reminds us of a unique web of kinship in the Stikine River valley. Every living thing in it is composed mainly of a shared substance — water. ■

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