



Salt marshes, mud flats, and Salicornia vegetation in the wetland conservation area.

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# Fish, Flows, and Desire in the Delta

IN THE WETLANDS, CLAIMS ABOUT ENVIRONMENTAL AND ECONOMIC CHANGE ARE ROOTED IN BROADER ASSERTIONS ABOUT LIVELIHOOD AND BELONGING.

By Caterina Scaramelli

The dirt road vanishes into a muddy track. The two fishermen and I leave the car by a collection of small wooden boats: dinghies stocked with bundles of nets and ropes, plastic crates, and polyester coolers. A few of the boats hoist small Turkish flags; others blanket their rusty engines under blue tarps, which complement the peeling paint. The vast expanse of mud around us is flecked with dusty green and dark red grasses; its wetter patches a yellowed aquamarine. Flocks of pink flamingoes stand in the shallow waters, their heads intermittently disappearing in the mud. I can hear other birds calling. The air is pungently salty and a little sweet.

These marshes feel far away from human settlement, but their present and futures are intimately tied to the work of men and women here in the Gediz Delta, and to changes further afield. Barren hills tower over the wavy Aegean Sea and a large tanker passes by on the horizon, perhaps heading to the nearby oil refinery. Somewhere behind the haze, the buzzing metropolis of Izmir lies barely visible, miles away. On our way here, the fishermen stopped the car to show me the dark, acrid waters flowing in a canal toward the sea: industrial waste from tanneries and factories along the delta. This waste, they averred, was killing the fish, plants, birds, and waters of the wetlands.



Environmental advocates describe wetlands as the world's most biodiverse and productive ecosystems and also those undergoing the most rapid degradation. The delta's residents do not attribute this kind of value to the wetlands' water, but instead cast it as a central part of an environment they helped produce. Value and loss, as anthropologists understand them, emerge through particular social, cultural, and environmental relations. For the fishermen, there are particular rhythms and flows of water (and of the things that flow in the water, such as fish, sediments, or toxic substances) that are desirable, and others that are not. To account for the value of water flows in this context means attending to the social and ecological worlds that produce them, to the ways in which narratives of ecological transformation and loss articulate contrasting meanings of livelihood and desires.

#### WATER FLOWS

Anthropologists and other scholars understand water to be multiple, materializing social, cultural, and biophysical relations (Barnes and Alatout 2012). Some argue that the material qualities of water and its flows invite the social meanings ascribed to it (e.g., Orlove and Caton 2010). Others assert that the existence of water as a knowable and measurable object is a techno-scientific abstraction (e.g., Linton 2010). Water flows provide rich metaphors for social theory—for global connections and fluid social relations (Helmreich 2011). And water as wetlands are often imagined to be places of dynamic flows contraposed with unmoving land, sites that resist our symbolic and material efforts to define and stabilize them.

But water moves in more complicated ways, Franz Krause (2014) reminds us, “in rhythms of varying intensity, tempo, and direction negotiated by human labor, infrastructure, the weather, and the river bed.” And the Gediz Delta is constituted not only by the ways in which water flows, but also by what it carries. Tanya Richardson (2016) suggests that the sediments that move in water—alongside toxins, or algae blooms—might move us beyond the opposition between moving flows and static terra firma.



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A fisherman's boat on the Gediz Delta's wetlands.

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The fishermen and I speak of the place where the road comes to an end as the edge of the delta. But wetlands don't have edges, a place where flows end and earth-bound firmness begins. Instead, they dissolve in complicated and dynamic entanglements of water, sediments, mud, bacteria, plants, animals, and people. Seventy years ago, at the shores of the Atlantic Ocean, the biologist Rachel Carson described “a shifting, kaleidoscopic pattern in which there is no finality, no ultimate and fixed reality—earth becoming fluid as the sea itself” (1950). She felt like an alien in a liminal space, standing between life and death, past and future, humans and nature, and reason and feeling. Yet, as the fishermen and I stand knee-deep in the water of the Gediz Delta's coastal marshes, we are not removed from the earthly villages, factories, river dikes, wastewater plants, and the ever-expanding city. Nor are the fishermen spectators to the “spectacle of life” (Carson 1950): this *is* their life, their home, and their everyday work, all seemingly at the precipice of destruction.

#### FISH AND TOXINS

The two fishermen agree that the toxic sludge comes from the factories, but they

cannot say what specific substances are flowing in the canal or what their effects on the water will be. They tell me that the fishing cooperative sent petitions to raise concerns about the sludge to local authorities, wetland managers, and the local conservation department, to little avail. Fishermen such as the two I am talking with are often blamed for overfishing and for building illegal fishing huts in the protected area. But for these delta fishermen it is the commercial fishers from outside the delta who fish irresponsibly and unsustainably. They note an increase in the number of large trawlers fishing the wetlands over the past several decades and claim insufficient regulation of these vessels is chiefly responsible for growing environmental degradation and decreasing fish yields. Although fish stocks are down and fishing has become less profitable for small-scale fishermen such as my interlocutors, their families continue to cast their nets and many supplement this income with other service jobs and factory employment.

Fishermen worry about other sources of pollutants, too: toxic flows of agricultural runoff from the cotton fields end up in the delta's marshes and fishing grounds. Yet, these come from a new agricultural economy that also helps support their families in the village. While some family members fish, others earn a living as agricultural workers, shepherds, truck drivers, and factory workers. The un-



known effects of toxic flows into the delta's lagoons come hand in hand with the yet unknown long-term effects of new kinds of employment, economic opportunity, and precarity. Coastal marshes are a place where residents perceive acutely the effects of broader political economies: in drawing attention to toxic flows and speaking about ecology, they are making political claims about environmental governance and their rights to a sustainable livelihood.

### URBAN FLOWS

The fishermen may agree that the delta is experiencing environmental and economic degradation, but that concurrence quickly breaks down when they debate what sorts of futures might or might not be desirable. Some of these disagreements are not about the fish stocks, the quality of the waters, or the quantity and seasonality of their flows, but about urban infrastructure. New flows of infrastructure change the fishermen's sense of belonging to this place, to the delta.

Over the past several years, a new residential complex of squat yellow and pink villas has been constructed a few kilometers from the fishermen's village. It is one of a number of gated communities for Izmir's middle classes rapidly encroaching upon peri-urban areas, invariably named after species of birds, or other natural elements. These dwellings are exemplars of what Ayfer Bartu Candan and Kiray Kulloğlu (2008) describe as a new privatization of urban governance, characterized by wealthy urbanites seeking respite from the city center and voluntarily segregating themselves behind wrought iron gates and decorative barriers.

One afternoon, the fishermen take me on a tour of the complex. The gate is ornamental, the wall haphazard, and there is no security guard in sight. It is eerily empty. Piles of discarded construction materials and rubble lie behind the residences where signs of the wetland's fecundity also endure; a pond is overgrown with reeds, its shallow waters shining with bright green algae.

For one of the fisherman, the expansion of communities like these—this one scarcely inhabited—is a glaring example of

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the delta's rapid destruction. "We are on the boundary of a wetland conservation area," he reminds me, "and this construction should not happen here." Wetland managers, he adds, have never visited the villages to talk with fishing communities about their needs and perspectives. "What is the value of the delta's wetlands?" I ask him. He thinks about it in silence before responding, "It is an important fishing ground for us and a habitat for many other *camlular* [living beings]."

The second fisherman feels differently. Environmentalists prevented the city from expanding on the delta, he explains with frustration. By "environmentalists," he refers to university conservation scientists and to the state officials who manage the wetlands, not to the environmental NGOs who have worked with delta residents in wetland conservation efforts. And now that this sort of expensive gated construction is ubiquitous, he continues, rural residents like him have been excluded from the benefits of urban growth and development. He envisions an expanded metropolis, not private developments like these, which he and his family cannot afford. The two fishermen disagree about the value of the new construction on the delta wetlands and about the delta's future, but they share a feeling of marginalization from decision-making about the environmental and infrastructural transformations taking place.

### DELTA LIFE

As rural delta residents experience the effects of environmental changes wrought on the delta's marshes by industrial, agricultural, and urban expansion, and by changing

agro-economies, they reckon with their own overlapping and contradictory notions of the value of the social and ecological worlds they belong to. Deborah Gewertz and Fred Errington (2015) have highlighted the difference between ecological *value* (that which is measurable in commensurable economic terms) and values (non-measurable ethical claims). Here in the delta, environmental value and values are mutually formed. Claims about economy and environment are simultaneously about morality and ethics: they express a moral ecology of the delta. Wetlands are sites that are always in the making, where different groups play out imaginations of value, history, and community (Scaramelli forthcoming). These imaginations may take the form of ecological argument and claim-making, but they are rooted in broader claims and desires such as those about livelihood and belonging made by the fishermen in the Gediz Delta.

For the fishermen I talked with at the end of the road on a chilly spring day, there is no separation between fluid water and immovable land. There are, instead, predictable and desirable flows and kinds of water: lagoons and coastal waters where schools of fish thrive. So too, are there undesirable ones: water that looks and smell like toxic runoff. These fishermen, and others on the delta, have expectations about the flows of infrastructure, capital, and science: They envision flows wherein they are included as interlocutors or have access to secure employment. They conjure up and come to expect a livable ecology—one created through everyday life and work, and the meaning-making brought to wider environmental and economic transformations in the wetlands. ☪

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