

Power and persuasion: GIS as a tool to combat inequality; injustice and environmental destruction in the Bluff oyster Fishery

Peter Knight

School of Surveying
University of Otago, Dunedin, New Zealand
Phone: +64 3 479-5401 Fax: +64 3 479-7586
Email: peter.knight@stonebow.otago.ac.nz

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ABSTRACT

Science has provided marvellous descriptions of the Foveaux Strait and of the creatures and ecosystems that it contains, but this has not been enough to prevent a tragedy in Bluff. The tragedy is the loss of the Bluff oyster fishery. Though the fishery continues, it does so unhappily, beyond the reach of most. Fifty years ago it would not have been difficult to discover the culture of the oyster fishery, but perhaps that culture was and is in many ways as fragile, and as changeable as the environmental ecology on which it depends. The idea that we should study the culture and sociology of a fishery as equally important to sustainability as the physical science is both old and new. Fishermen have always known that the politics of a fishery will impact catches, and to some extent this had been admitted in fisheries science and fisheries management. The idea of the tragedy of open access fishing, also known as the tragedy of the commons was an admission by science and fisheries management science that human organization (or lack thereof) could lead to the destruction of fishing economies through overexploitation. But the response of fisheries management science to the socio-economic problems in fisheries, namely the introduction of the Quota Management System, has, in the case of the Bluff oyster fishery, been uni-dimensional, inequitable and ultimately ineffective. On the other hand, today's literature of resource management has made the connection between social and physical ecology, and one of the objects of our work has been to try to describe how these new approaches apply to the Bluff oyster fishery.

We have identified a community of conservation minded fishermen in Bluff, and we have attempted to re-tell the stories related by members of this community—stories of overfishing and environmental destruction—in terms that might find their way into wider discussions. Words are important, and to describe the impact of the Quota Management System on the Bluff oyster fishery has been a great learning experience, whatever the affect these words might eventually bring to the policy debate. I have also often wondered, throughout my involvement in the Bluff, whether, in the right hands, spatial science might not also prove a useful tool in helping to shift attitudes toward the fishery. There is certainly a role for spatial science in the analysis of fishery science and the spatial organization of the fishery, but we are still far from an invitation to participate in a system of fishery management that is normally characterized by exclusion. We have, nevertheless, remained interested in applications of spatial science to enhancing the community side of the Bluff oyster fishery. We are currently involved in a project that aims at using a public geographic information system to present fishermen's information, stories and ideas. This is part community building, part information sharing, part information science, and part activism. My talk to the SIRC conference will summarize our experience in working with the Bluff community since 2002, describe the initial stages of our public participation GIS, and invite discussion concerning the direction our continuing efforts might take.

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