



Vernon's Quarry, Lanesville. ©2010. Leslie D. Bartlett

Protecting Our Cape Ann Quarry Landscape

WHAT IS A CLIMATE CHANGE RESILIENT LANDSCAPE?

A resilient landscape has enough biological and microclimate diversity so that nature can adapt and survive within a continually changing climate.

The Nature Conservancy has identified a series of landscapes across the American northeast and southeastern Canada that are predicted to withstand the growing impacts of climate change, and help ensure nature's survival.

These landscapes are called climate change resilient sites.

CLIMATE CHANGE RESILIENCE

AND THE QUARRY LANDSCAPE OF CAPE ANN

The Nature Conservancy has identified the Quarry landscape of Cape Ann, especially Dogtown and Halibut Point, as among the most resilient places within the North Atlantic Coastal region. These areas, according to Dr Mark Anderson of The Nature Conservancy have "enough variety of landforms, microclimates and possibilities for wildlife to travel across corridors, which allows species and ecosystems to survive in the face of climate change."¹

The Nature Conservancy has looked at three key elements that contribute to resilience, or the capacity to adapt.

- Various landforms (rocky coastlines, wetlands and upland forests), which create different microclimates.
 - The abundance of undeveloped natural passages for animals to travel along.
 - A variety of geology (such as granite which is the bedrock of Cape Ann).
- In other words, lands identified as climate change resilient, if left undeveloped and carefully managed, have a possibility of withstanding the effects of climate change. A possibility of surviving as intact landscapes. So, there is some Hope.

1. Anderson, M.G., M. Clark, and A. Olivero Sheldon. 2012 Resilient Sites for Terrestrial Conservation in the Northeast and Mid-Atlantic Region. The Nature Conservancy, Eastern Conservation Science. 168 pp

THE KEY IS HUMAN BEHAVIOR:

can we effectively preserve the quarry landscape so that Cape Ann's hundreds of years hence can enjoy the same maritime and pine forests that now support the low-lying swamps of red oaks, white ash and tupelo along with the black locust, black cherry and native honeysuckle? Will we still be able to delight in the magic of white and pink ladyslippers? Will we be able follow trails to marvel at the depth and sparkle of the clear quarry waters, flanked by granite boulders swaddled in lichen and not vandals' markings?

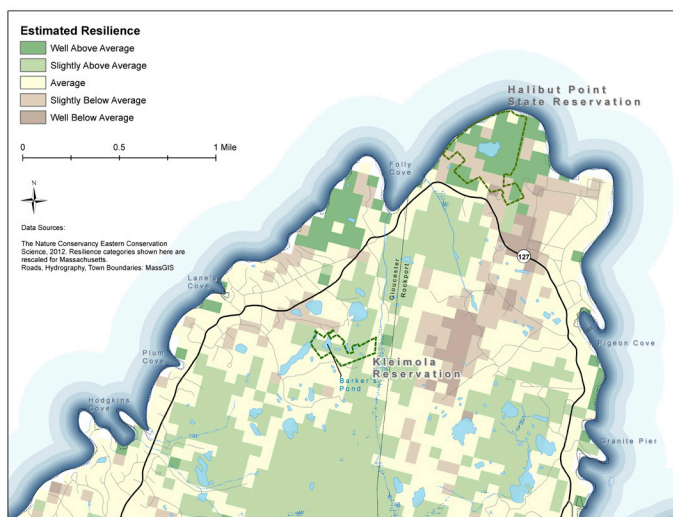
TWO BEHAVIORS TO PRESERVE QUARRIES

A. Open space preservation

of the quarry landscape in Cape Ann. In Gloucester alone, 5,500 acres have some form of conservation. Of these, 4,500 acres are owned by the City of Gloucester. But these lands are not all protected with conservation restrictions. In the North Gloucester Woods area, a key 319 acre part of the quarry landscape, 94 acres of City-owned land are completely unprotected, while 87 acres needs more conservation action.

B. Effective management of the quarry areas

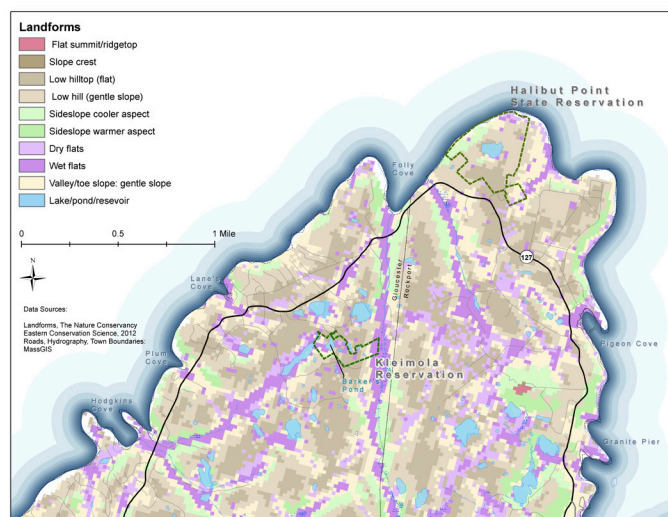
so that vandals are deterred from trashing the quarries, defacing granite boulders, leaving empty cans and bottles. Today, Vernon's Quarry in Lanesville is a testament to both local clean-up efforts and the constant, pressing need to ensure that both local residents and people from outside Cape Ann respect the Quarry's natural integrity and beauty.



[LEFT]
Estimated Resilience. This map depicts the estimated resilience of the quarry landscape. Areas in green have the most complex topography and connected natural cover as compared to other landscapes with similar geology.

[RIGHT]
Landforms. This map depicts the varied topography of the quarry landscape. Complex topography creates a variety of habitats within a small area, allowing resident species to remain strong and natural communities to shift gradually as temperature and precipitation patterns shift.

Maps courtesy of Jessica Dyson, The Nature Conservancy in Massachusetts.





Babson Farm Quarry at Halibut State Park, Rockport. ©2016. Leslie D. Bartlett



Cape Ann Quarries: Cultural and Natural Treasures We'll Leave Our Grandchildren

Granite forms the bedrock of most of Cape Ann. The granite industry, which began in the 1830s, changed the landscape of the fishing and farming communities of Rockport and Gloucester. Quarrying for granite became a driving force in the local economy until 1931. Today the quarries are filled in with water; granite boulders are encrusted with lichen and remnants of an important Cape Ann industry are often hidden in nature's thick undergrowth. The Quarry Landscape has a special beauty, and tells a story of both nature and man's resilience. Its preservation for future generations to enjoy, however, is by no means assured.

Gabriel & Selma Kleimola Reservation

This unique Lanesville parcel in the North Gloucester woods features abandoned granite quarries and an existing recreational trail network that connects into Dogtown. Greenbelt acquired it with support from Cape Ann residents interested in expanding the "greenbelt" of protected land within the greater Dogtown area of Gloucester.

for more information :

Kleimola Reservation
<http://www.ecga.org>

Halibut Point State Park
<http://www.halibutstatepark.com>



Kleimola Reservation, Lanesville. ©2016. Leslie D. Bartlett

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