Journal of Marine and Island Cultures (2012) 1, 11–20

Journal of Marine and Island Cultures

www.sciencedirect.com

ORIGINAL ARTICLE

Tidal-flat islands in Korea: Exploring biocultural diversity

Sun-Kee Hong

Institution for Marine and Island Cultures (MIC), Mokpo National University, Republic of Korea

Received 12 March 2012; accepted 2 April 2012
Available online 20 June 2012

KEYWORDS

Biocultural diversity;
Tidal-flat islands;
Dadohae;
Island culture;
Sustainability

Abstract Korea's islands are mostly located along its western and southern coasts. The majority of these islands fall under the category of tidal-flat islands. More to the point, one of the main geographical and topographical characteristics of Korean islands is that they are surrounded by tidal flats. Therefore, Korean islands boast ecologically and biologically unique characteristics, as well as diversity, that set them apart from islands in other areas. Tidal flats are a virtual treasure trove where one can find various marine organisms. Local residents have been able to adjust to their environment by making use of the organisms found in tidal flats and the characteristics of islands. This has led them to create a unique island and maritime culture. To this end, the study of island culture requires not only an astute understanding of the ecological basis, biological process and human activities which become the background for cultural creation, but also of the interactions between these elements. Korea's island culture was created amidst a unique maritime environment characterized by the achievement of spatial harmony between the tidal flats and islands. This cultural structure can be expected to continue for as long as the balance in terms of the ecosystem is preserved.

Introduction

Islands are not isolated in either a biological or ecological manner. Islands are open spaces surrounded by water. The perceived isolation of islands is nothing more than a notion rooted in man's process of ecological adaptation. As cultural diffusion is the result of man's adaptation to the natural environment, the unique cultural diversity of a certain region can be seen as a reflection of its natural environment. To effectively understand the culture of a region, it is necessary to consider its natural environment, such as its geology, topography, and ecology (Beller et al., 1990; Maffi and Woodley, 2010; Wu, 2011). While the ecological environment of oceans and islands was seen by inland society as places for adventures and conquest, it provided resources essential to the life and culture of residents in coastal areas. Furthermore, while peninsulas were regarded by island people as pathways to inland areas, inland people viewed them as a source of the resources (e.g. vessels and food) needed to conquer the distant seas and islands. To this end, the lifestyle of man at sea was dependent on the eco-geographic characteristics of the islands and peninsulas which connected the island and inland areas (Hong, 2011b). The behavioral patterns associated with man's adjustment to a specific ecological environment have led to the creation of various life cultures. The cultural behavior of man on islands and oceans not only has its roots in the desire to make use

E-mail address: landskhong@gmail.com
Peer review under responsibility of Mokpo National University.

Production and hosting by Elsevier

http://dx.doi.org/10.1016/j.imic.2012.04.001

of the ecological environment, but also greatly influenced the mutual-evolution of organisms and man (Brown et al., 2005).

As such, the ecological environment of islands and oceans and the cultural behavioral patterns of man can be regarded as being intricately intertwined with one another. However, contrary to the Okinawa islands in Japanese Archipelago, Italian and Greek islands in the Mediterranean, Malay Archipelago in Indonesia, and the Aleutian islands in Alaska, very few eco-cultural studies related to the ocean or humanities-based reviews of the environmental history of Korea, a peninsular country surrounded by the sea on three sides that is made up of over 3,400 islands (Dadohae), have been conducted. The ecological complexity created by interactions between man and nature, and the balance between, and diversity of, ecology and culture which emerged during the process of environmental adaptation have either been expanded and reproduced as the chain linking together islands, peninsulas, and inland areas, or have been extinct based on the peninsula effect. This can be perceived from the vantage point of the history of the maritime environment or from the island bio-geographic viewpoint. Korea's Dadohae culture is a broad cultural space that can be used to better comprehend the endless ecological behaviors of man vis-à-vis the ocean (Hong, 2011a).

Historical materials and relics have made it amply clear that the proper use of island resources has been closely related to the survival of island residents (Berkes et al., 2000; Hess, 1990). Easter Island has been identified as a prime example of man's reckless use of resources, recklessness which led to the destruction of the local culture and the extinction of human life on the island. Meanwhile, although the Mediterranean countries of Greece and Italy, Middle Eastern nation of Lebanon, and England were heavily forested countries in the past, their thickly wooded forests disappeared amidst the construction of vessels used for the purpose of maritime wars and colonial rule. Anthropological studies and a look at ecological history have left us well aware that the national traits of countries with forests and deserts, as well as their lifestyles and cultures, are clearly different from those of other nations. As such, an understanding of the ecology of islands becomes the scale that is used to measure their future cultural legacy. The development of a rationale for the past and current environments that is based on indigenous knowledge regarding the uses of the natural environment and biological resources of islands and the study of the influences of man on the environment should be the main items on the agenda when it comes to overcoming the ecological crisis which mankind currently faces on this island known as earth. Landscape ecology and eco-geology are characterized by a sense of consilience which allows them to simultaneously connect man's land use with ecosystems both in the past and present, with the cultural spaces created within the broad spatial scope that exists between regions (Delcourt and Delcourt, 1992; Nassauer, 2005; Hong et al., 2007; Wu, 2011). Landscape ecology and eco-geological based studies on islands both at home and abroad have to date proved unsatisfactory. Of particular importance has been the relative absence of joint exchanges with those engaged in the field of humanities. It is essential at the academic level that consilience-based studies on the interactions between man and nature based on the ecological culture of islands and peninsulas be conducted. Such an approach based on the past and present will enable us to better predict the future of the eco-environment.

Generally speaking, islands are viewed as being characterized by isolation. However, on the other hand, islands also play the role of a cultural filter that sifts through the various heterogeneous cultures emanating from the outside via maritime routes, and also serve as the ecological membrane through which selective communication with the inland areas becomes possible. The theory of island biogeography maintains that depending on geological characteristics such as their distance from inland or peninsula areas, distance from other islands, size and shape, islands can in effect serve as the source or sink of organisms (MacArthur and Wilson, 1967). The diffusion of culture can also be viewed from the ecological standpoint. This is closely related to not only simple humanities-based suppositions, but also the cultural diffusion and conveyance of indigenous knowledge. For the most part, Shinan-gun in Jeonnam Province is made up of tidal-flat islands. The islands attached to Heuksan-myeon boast more unique cultural and ecological characteristics than the other islands in Shinan-gun. Meanwhile, the islands along the Dadohae area in Shinan-gun boast clear differences depending on whether they are surrounded by the 'ocean' or 'tidal-flats' (Fig. 1). The indigenous knowledge of islands becomes different, changes, and evolves in accordance with the environments that surround them. One can apply ecological suppositions as part of a humanities-based introspection on the cultural differences between 'islands surrounded by the ocean' and 'islands surrounded by tidal-flats', and this even though we may be talking about the same island.

Given the characteristics of islands such as Hong Kong in Asia and Hawaii in the Pacific Ocean, as well as of many islands in the Mediterranean and Aegean Sea, one cannot simply conclude that all islands are characterized by isolation. In addition, islands such as Wando island, which was home to Cheonghaejin, have a history of serving as a source of culture and resources. Isolation allows islands to create unique cultures. It also makes possible the exchange of such cultures via the sea. We can see how the destiny of islands and mankind was shaped by the manner in which the people who populated isolated islands such as Easter island, Hawaii, and the *Galapagos* Islands in the Pacific Ocean used the resources of these islands. The conservation and sustainable use of the limited resources associated with the natural environment and land in Korea's Dadohae area is predicated on the holding of an in-depth discussion on the types of roles required. The Dadohae area near Shinan-gun was recently designated as the UNESCO Shinan Dadohae Biosphere Reserve (SDBR) (Lee et al., 2010; Hong, 2011a). Korea may very well be the last place where maritime organisms in tidal flats are collected using bare-handed fishing techniques. The process of catching octopuses does not end with the collecting of these marine organisms, but also involves the mixing of the organic matters in the tidal-flats. In other words, it is a process that heightens the functional cycle of the ecosystem. This can only be rendered possible through the process of consilience as well as humanities-based suppositions that allow us to perceive the coexistence and coprosperity of cultural diversity and biodiversity in spaces such as the sea, tidal flats, forests, waterways, and islands.