

The Geomorphic Development and Artificial Change of Environment at the Moor Yongneup, Mt. Daeam

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The largest hochmoor Yongneup is located on the northwestern ridge of mt. Daeam(1,314m), Yanggu-Gun(county), Gangwon-Do(province) of Korea. Yongneup was designated as the special conservation area of natural ecology 1989, since it was reported on the academic world 1968. At the first time, it was joined to the Ramsar Convention 1997. Some research about Yongneup was carried out of the several fields, such as biology, geology, engineering and geography. And plant flora, marsh plant group and vegetational change according to the biologic classification and ecology were mostly discussed.

The sedimentation field of the hochmoor has to be investigated in order to understand the mechanism controlling the geomorphic development of the moor Yongneup. This is very important to understand the environmental changes during the Quaternary, including the geology, geomorphology, hydrology and the pollen analysis. Existing reports refer that Yongneup was influenced by human being owing to the staying of military troops close to D.M.Z. since Korean War.

But it is not discussed sufficiently how the artificial influences were reflected on ecological and geomorphological changes on the moor Yongneup.

This study, based on the existed reports and surveyed data on the field, was discussed on the geomorphic development, the period of formation and the environmental changes, specially resulted from the impacts of human beings at the hochmoor Yongneup:

1) There are two opinions between hochmoor and pseudo-hochmoor about the characteristics of the moor Yongneup. The other one is zwischen moor changing from the niedermoore to the hochmoor. It has to be clarified clearly through the research based on the Quaternary studies.

2) The sedimentation field on the basin containing the moor Yongneup might be accomplished basically during the last glacial period. The boulders produced by mechanical weathering were deposited on the north-eastern narrow exit of the moor Yongneup. As the result, the pool was formed on the gentle slope surface.

3) The period of geomorphic formation and process of the moor Yongneup are summarized as follows: The pool containing the moor was constructed on the high planation surface with gentle slope by transporting the boulders originated from the erosion of the neighbouring ridge during the last glacial period. The forest vegetation was covered thickly on the neighbouring hills by increasing temperature during the Holocene. As a result, the fine sediments deposited over the layer of coarse gravel have made a moor with bad drainage. The swamp was constructed as a deep pool under the deoxidized condition by the inflow from the ridge and neighbouring hills and flourished by the swampy plants.

4) The environmental changes by the impact from human being contain two causes: One is the deforestation and geomorphic changes in the river basin which influence on river and stream network. The other one is the geo-

morphic changes by human being within the moor which is influenced by changes of the channel inflowing to

the moor and the construction of the skating track and shooting range.

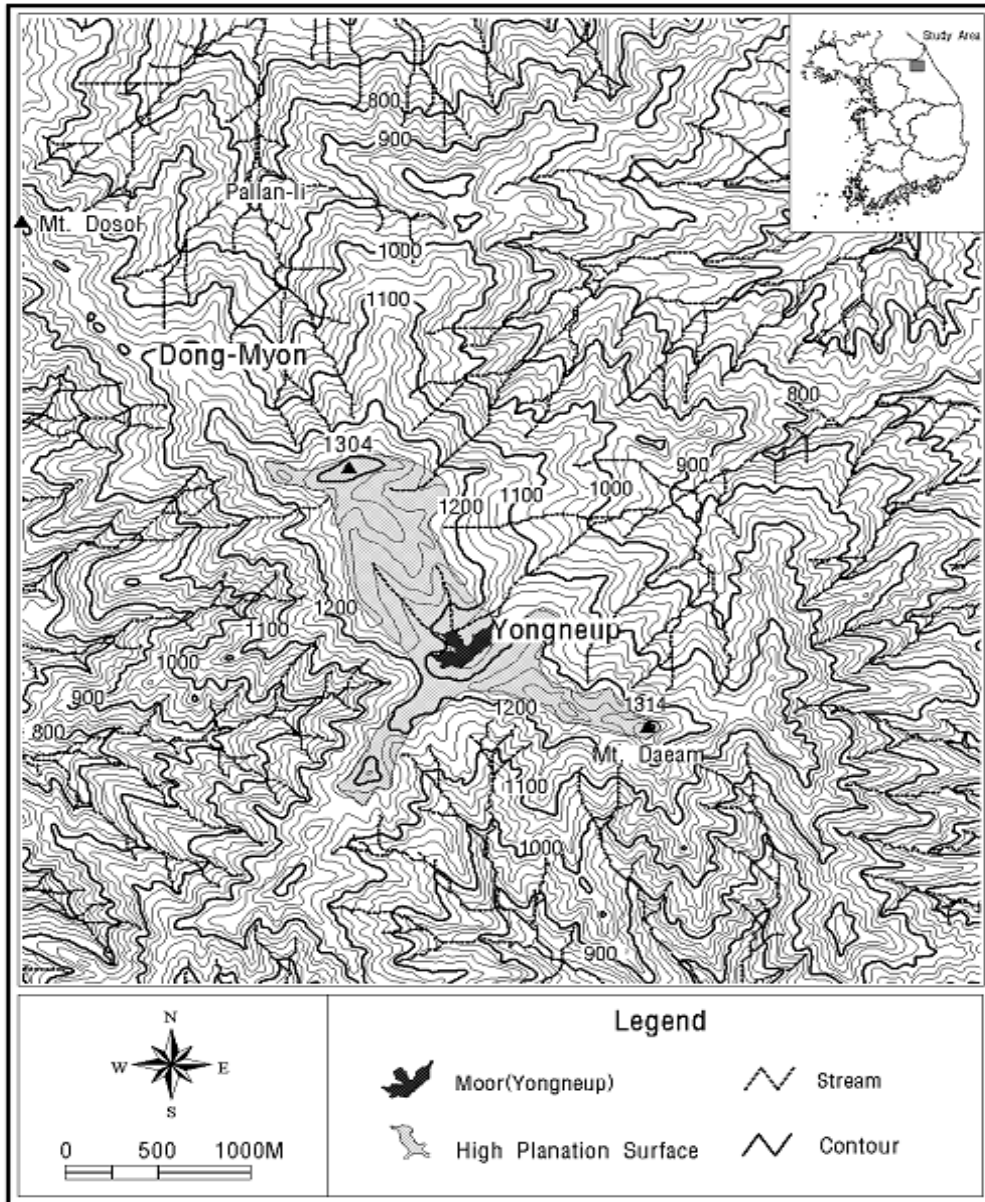


Fig. 1. Study Area

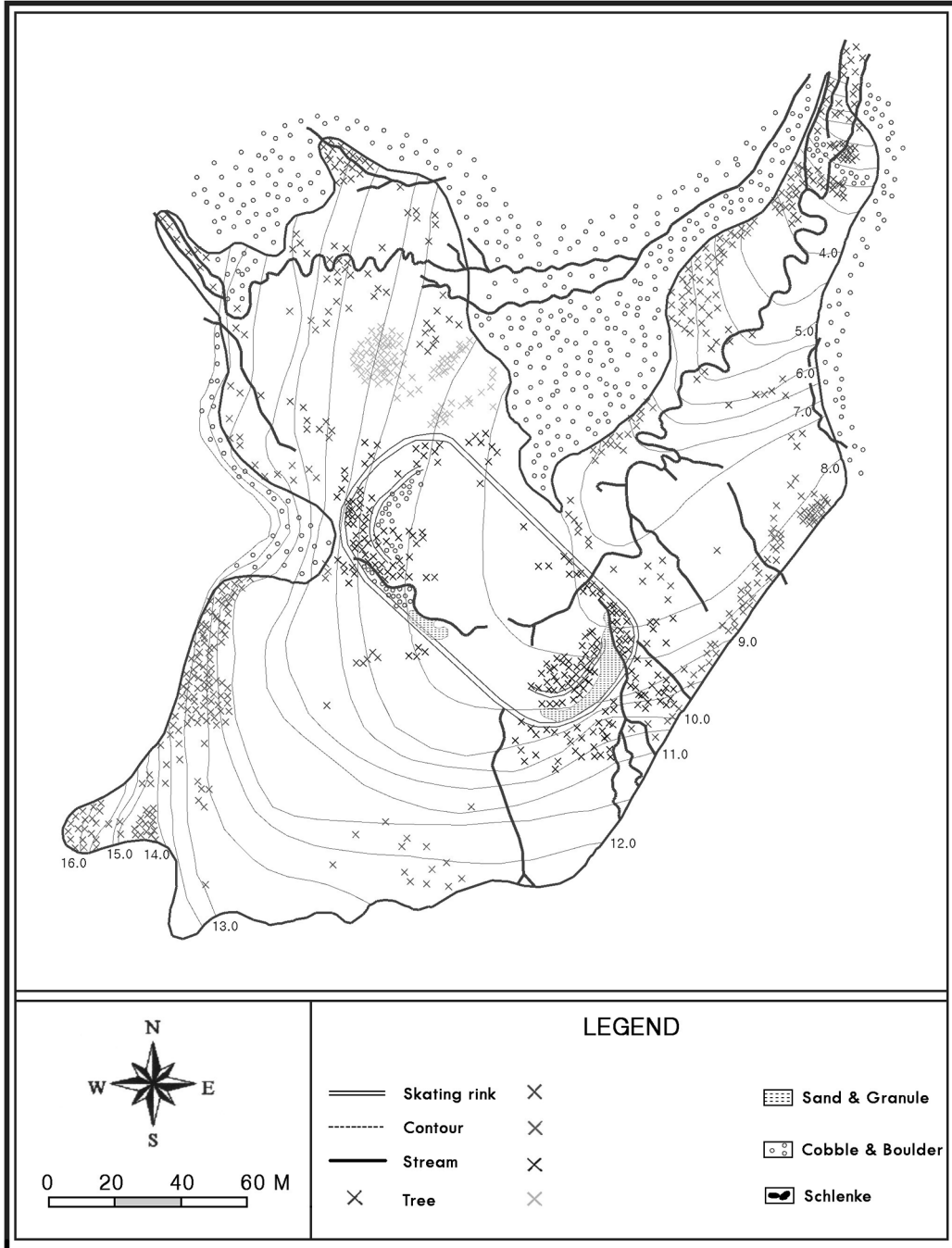


Fig. 2. Landscape classification of present Moor Yongneup.