

Anderson, Ryan V. "Flooding and Settlement in the Upper Willamette Valley." M.A. Thesis, Department of Geography. University of Oregon, 1974. (Reviewed by Alexis Steinberg)

Ryan Anderson's masters thesis from 1974 presents a long-standing and still hotly debated issue involving Willamette Valley floodplain management and settlement/building patterns. He focuses on the settlement history of the Upper Willamette Valley and, specifically, settlement on the floodplain of the Willamette and its tributaries between Eugene and Albany. "The settlement history of the Upper Willamette Valley in Oregon is partly a record of the inability, or unwillingness, to view the problems of living and farming on a floodplain in the light of frequent re-occurrence of flood phenomena."

Anderson first examines the natural phenomena, including climate and landscape that contribute to regular flooding of the Willamette. These factors include Willamette Basin characteristics of geology, slope, altitude, vegetation, basin shape, precipitation intensity, storm direction, soil, temperature and snow melt. Logging was the major human influence contributing to flooding historically, by increasing runoff from slopes.

Anderson also notes the cyclical nature of small-scale floods that have tended to occur between December and February as well as "catastrophic" floods that were documented in 1861 and 1890. Small to medium-sized floods that occurred in the twentieth-century, he argues, were more destructive than historical "catastrophic" floods "because of the encroachment of urban populations into the active floodplain." By 1964, dams controlled much of the regular flooding and, subsequently, human activity in the floodplain increased dramatically.

Anderson divides his discussion about settlement and floodplain management into three time periods: 1) settlement before 1930, including increased occupation by Euro-Americans in Oregon and settlement away from the floodplain; 2) 1930 to 1950, including automobile transportation, initial flood controls and increased use of the floodplain for agriculture; and 3) 1950 to 1970, including "unregulated urbanization" of the Valley.

Anderson concludes his discussion by proposing stricter management of floodplain settlement and agriculture. This would include county and city zoning to contain urban growth. "The question at this point is whether the 'growth is good' sector of each county and city populace will stifle wise land-use planning."

Critique

I found Ryan Anderson's thesis to be generally forward thinking for the early 1970s. The history of humans attempting to live in a seasonal river is fascinating! Our (Euro-American) manipulation of natural processes is a powerful and tragic history. Anderson discusses the tragic part as it has applied to human loss (land ownership, buildings, money), but does not discuss floodplain natural habitat loss as a result of human settlement patterns.

Anderson's argument is logical: Humans should not live on the Willamette floodplain and expect to be there long. There is some kind of psychological and often physical sense of security offered by dams. After reading Anderson's descriptions of reoccurring large-scale floods that could not be controlled by dams, I wonder if this sense of security is a false one. This discussion involves current events like the proposed location (in the Willamette floodplain) of the new hospital in Eugene. It also involves river patterns and hydrology in general. Should the meandering of the (McKenzie) river into someone's new house be covered by insurance? It seems that Ryan Anderson's thesis could help us understand the need to develop historical and contemporary knowledge and respect of the Willamette River Basin if we are to live in harmony with it.

[return to info sources page](#)

[return to home page](#)