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A HISTORICAL GEOGRAPHY

OF THE KLAMATH LAKES BASIN

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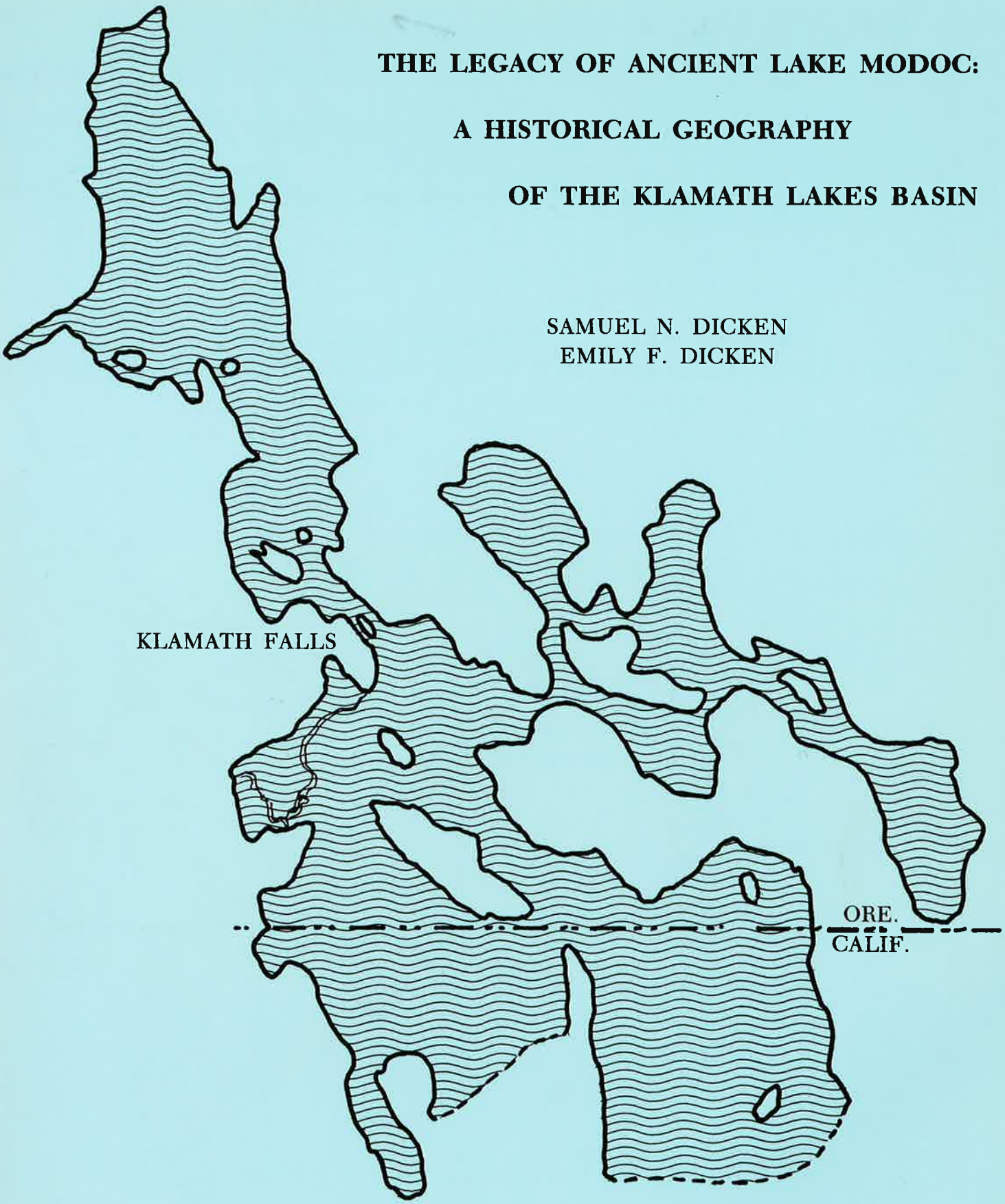

Jack Remington

THE LEGACY OF ANCIENT LAKE MODOC: A HISTORICAL GEOGRAPHY OF THE KLAMATH LAKES BASIN OREGON AND CALIFORNIA

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With a Foreword by
FRANCIS S. LANDRUM

FOREWORD

If one examines a present-day contour map of the Klamath Lakes Region, he can easily see that an increment in the lake levels would cause the lot to coalesce into one large amoeba-shaped sheet. Others have observed the ancient geological shorelines along the dry hills but it remained for Sam Dicken to point out, limit, define, and name this pluvial sea, Lake Modoc. His trained eyes have seen the correct topography as it existed eons ago, together with the summation of changes to the present.

Lake Modoc never had the pristine loveliness of a Lucerne or a Louise, although its waters did wash the sylvan south toe of Mount Mazama and the Cascade salient. Much of its shoreline was rocky, bare, and semi-sterile, not unlike the present beaches of Abert Lake or Clear Lake. As the recession of waters began, those flatter or near dead-level shores emerged first as marshlands, the customary littorals of Klamath's non-mountain lakes.

But marshland can be beautiful. It all depends how one looks at things, not at all unlike viewing a scrawny three-day old pelican. Creation's chain-of-life in the wetlands is manifest from the most minute spore to the great "swanny white wing." The ooze is full of wigglies; so is the water; creepy crawlies inhabit every stalk. Birds nest whenever they can find a rough snag on a tule staff from which to hang a haven. Ducks, geese, cranes, storks, herons, loons, mud hens, mergansers, all the lesser shag, and native tweety birds of all shades and shapes begin their lives here.

Originally native Indians recognized the vast larder Mother Nature so conveniently provided and gathered a vitamin-rich, protein-rich harvest of fish, birds, snakes, frogs, lizards, wigglies, and tubers enriched with a seasonable supplement of eggs. The last--mainly duck eggs--regardless of age were a prize delicacy.

Nelson Reed's infinitely valuable Klamath River Interstate Compact generously affords the entire remaining flow of the Klamath to South California, but with the minor proviso that possession be taken at the mouth. With the river (which drains the lake) Klamath will prevail forever, but only as a home for the hardy, well accustomed to an attitude of apathy and a diet of crumbs returned and intended as full and equal measure for the treasure yielded as taxes. Oddly, Klamath was populated and pioneered from the west, not the east. A goodly measure of immigrants to the lowland dales were not sure they had found the Garden and they, with the more hardy landsmen, brought with them the genesis of their herds, their plow, and their muscle. It was no easy task to combat the elements but those who so elected--and won--became the herd sires of the highlands. Giles French said it, "Eastern Oregon is he-man country. We raise wheat and beef, and alfalfa hay. Our cousins left in the valley persist to exist on a sub-culture of lettuce, prunes, and long-tailed sheep."

And the locale has always demonstrated an atmosphere of fierce independence. During the early days of Altamont many, many people existed--not lived--in the most basic of shelters. Cardboard, box slats, and canvas. And they suffered, but still managed to smile and, more important, to hope: Mud, bib overalls, bare feet, chickens, pigs, cow manure, gardens, more mud, loos with views and last year's Sears, bare light bulbs, and no curtains. The look of absolute despair on my mother's face when she dug up the keepsake coin which Uncle Bulgy had brought her from the Carson City mint years before and sent me to the little store. The need was now. It wasn't for seeds nor flour. It was for a loaf of bread and it was her last money--a dime. All that was left were string beans and eggs.

And still the archetype southeastern Oregonian remains subservient to

no one, nor will he be. He is willing to give his last measure of effort if the deal is above the table, is friendly, compassionate, and as proud of his sweat as he is of his net. He breathes clean air, yet his country is now almost without immigration, as sadly, most Americans have become accustomed to fear breathing air which they cannot see. He knows not floods, hurricanes, tornadoes, typhoons, sandstorms, earthquakes, nor AIDS. He gets hot in summer. We are a friendly, provincial, somewhat backward colony and, in many ways, a cultural desert. We're happy, we enjoy life, we have as much freedom as any, and much more than most. We have learned to cope with the adversities of both nature and politics, are accustomed to hard work and disappointment. We're anticipating a future of unknowns, containing who knows what roadblocks, firmly convinced that we or our offspring will continue to prevail...and with a smile, thank you!

FRANCIS S. LANDRUM

ACKNOWLEDGEMENTS

One of the greatest rewards in writing a geography book of this sort is meeting with and learning from local people who, collectively, know more about the area than any one person will ever know. We have known the Klamath Basin, superficially, for more than thirty-five years. In 1950 we wrote a short description of it for the first edition of OREGON GEOGRAPHY. The present book is the result of four years of leisurely study in field and library.

Many agencies and individuals have contributed to this book. Klamath County agencies include the Planning Department, the County Museum, the County Surveyor, and the County Engineer. The Comprehensive Plan for the City of Klamath Falls and the Comprehensive Master Plan for Klamath County were very useful. Jonathan Chudnoff was especially helpful. James A. Allen read part of an early draft of the manuscript and reviewed the short paper, "Pluvial Lake Modoc," in the Herald and News. State Departments involved were the Oregon Institute of Technology and the University of Oregon. The Oregon Collections of the University Library were especially useful. The report of the Oregon Water Board was consulted frequently. Several Federal agencies were helpful: the Bureau of Reclamation, the Soil Conservation Service, the U.S. Geological Survey, the National Weather Service, and the U.S. Forest Service.

Many individuals have helped. Francis S. Landrum read all the manuscript, critically, some of it more than once. He also provided additional information. KLAMATH ECHOES, by Devere and Helen Helfrich, was frequently consulted. The sixteen volumes of the work provide a wealth of detail on the history and geography of the area. James Kerns guided us on field trips on the ground and in the air, explaining the complications of the irrigation system in the Basin. Jessie Puckett read all the manuscript and guided us into some of the remote parts of the area, including the site of old Pokegama. Priscilla Knuth of the Oregon Historical Society read the manuscript critically and suggested some additional sources. The files of the Oregon Historical Quarterly which she edits were consulted and cited. Karen M. Seidel furnished useful material from the files of the Bureau of Governmental Research and Service.

My colleagues in the Geography Department, University of Oregon, offered encouragement and suggestions. Professor William Loy read the manuscript and offered suggestions for the maps. The staff of the Map Library, Susan Clark and Peter Stark, were most helpful with maps and airphotos. Georgette Bozovich and Teresa Benedict typed parts of the manuscript with great care.

We have studied in the field and in libraries in various areas, Kentucky, Minnesota, Mexico, and, most of all, in Oregon. The people of Klamath County have been most helpful, cooperative, and encouraging. And none asked the question: "What is the good of this study?"

These and many others, too numerous to mention, have contributed useful facts and ideas.

In spite of all the assistance and criticism there are undoubtedly some errors of fact and interpretation in the book. We would appreciate having them called to our attention, preferably with documentation.

Samuel N. Dicken
Emily F. Dicken

PROLOGUE

The earth shaking events which combined to form the Klamath Lakes Basin and the surrounding ridges began a few million years ago when the Cascade Range was uplifted, faulted, intruded, and covered with lavas. Displacement of huge blocks produced a basin-range surface which extends over a vast area from southeastern Oregon through California, Nevada, Arizona, and as far south as Mexico, D. F. In the Klamath Area the ridges have various names--hills, rims, ridges, and mountains. Some are broad, some long and narrow. Examples: Modoc Ridge, Hogback Mountain, Klamath Hills, and High Rim. The basins (or valleys) represent down-dropped parts of the earth's crust, partially filled with sediment, some of them containing lakes. Examples: Upper Klamath Lake Basin, Lower Klamath Lake Basin (now partially drained), and Tule Lake Basin (also partially drained). Basins formerly filled with lake water include Langell Valley, Poe Valley, Yonna Valley, and Swan Lake Valley.

This complex of basins and ranges has been subject to many changing forces. Lavas intruded the ranges, adding to the uplift, and poured out on the surface, forming peaks, cinder cones, and broad mesas. The materials include flow lavas, volcanic ash, pumice, and cinders. As the climate was humid during the last Ice Age, the basins filled with water to overflowing and the lighter materials were redistributed by waves and currents.

The most spectacular event was the eruption of Mount Mazama (to form Crater Lake) 7,000 years ago. The crater spewed out large quantities of ash and pumice which, carried by strong winds, covered a wide area. Much of the material which fell on the ranges was washed into the Basin by torrential rains, eroding deep canyons on the slopes.

Even before Mt. Mazama erupted, perhaps 13,000 years ago, the climate slowly became warmer and drier, but not as dry as it is today. At this time all the basins in the Klamath Lake Area were occupied by a single large lake, which I have named Pluvial Lake Modoc.* This lake covered an area of over 1,000 square miles. Its long, irregular shoreline can be seen in various parts of the Klamath Lakes Area at an elevation of approximately 4,200 feet. After the eruption of Mount Mazama, the drying and warming trend continued and the level of Lake Modoc (and various other pluvial lakes in eastern Oregon) continued to shrink. The level declined and some of the arms of the lake, such as Langell Valley and Poe Valley, became dry. As the level declined further, Upper Klamath Lake, Lower Klamath and Tule lakes were separated. All of which created an environment favorable for human occupation. Evidence shows that people have been living in the Basin for at least 3,000 years, probably longer. The level floor of the Basin has deep soils and an abundant water system of lakes and streams, a variety of vegetation and wildlife.

Ancient Lake Modoc left a legacy for the people of the Basin; for the Indians who lived for many centuries along the river banks and lake shores; and for the thousands of white people who have occupied the site for a little more than a century. In the following chapters the main features of the region are presented in historical perspective, too briefly perhaps, and with too much generalization. No one person and no single book can tell the whole story of this complicated and fascinating region.

*Reference: Samuel N. Dicken, Pluvial Lake Modoc, Klamath County, Oregon, and Modoc and Siskiyou Counties, California. In Oregon Geology, v. 42, No. 11. November 1980. pp. 179-187.

Frontispiece. A view of Klamath Falls looking to the southwest. The Business District is in the center; to the left is Lake Ewauna and a part of the Industrial Area. On the right, middle distance, is the Ewauna Heights Residence District, beyond which is Link River. The Main Irrigation Canal meanders from right to left through the city. (Author's photo)

1. AN OVERVIEW

From the air (or from a satellite) on a clear day, or from airphotos, the essential features of this unique and interesting region can be clearly seen. The focus is the city of Klamath Falls (fig. 1.1), near the lower end of Upper Klamath Lake, the largest in Oregon. To the west is the forested Cascade Range, presenting a steep front to the Basin. To the north is Crater Lake; some of the water seeping through its porous rim flows into Upper Klamath Lake. To the east are numerous wooded ranges and intervening basins, a part of the vast Basin Range Region. To the south, in California, sparsely vegetated recent lava flows mark the southern end of the Basin. Dome Mountain stands up like a sentinel over the lava beds and, far to the south, Mt. Shasta shows its snow-covered profile. This small basin, only 75 miles long, is home to most of Klamath County's 58,000 people and a few thousand more in the California part of the Basin. It is quite distinct from other settlements in the area, but it is not isolated; it is served by railroads, airways, and a network of roads.

In this book on historical geography the main purpose is to describe and explain the geography of the Basin, period by period, from the time of the first explorations to the present. It involves the study of natural features such as basins, ranges, lakes, rivers, soils, forests and human features such as population, production, housing, and transportation. In explaining the geography of the Basin, attention is given to the perception of the region by the explorers and settlers.

In this first chapter a general overview is presented, including both natural and human features. Chapter Two, exploration, describes the land as it was before white settlement, up to 1860. Chapter Three protrays early settlement, from 1860 to 1900. Chapter Four is concerned with expanding settlement and the introduction of large-scale irrigation, 1900 to 1930. Chapter Five, depression and recovery, covers the period 1930 to 1950. Chapter Six follows the continuing slow growth from 1950 to 1980. Chapter Seven is mainly concerned with the urban areas, Klamath Falls and Altamont.

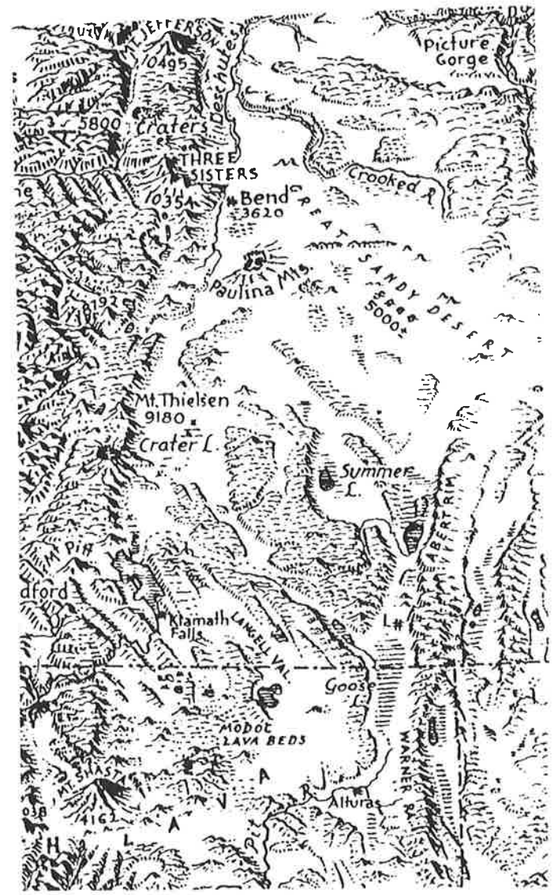

Fig. 1.1. The Klamath Lakes Area in Oregon and California is part of the rugged Basin and Range Region. (Map from Erwin Raisz)

NATURAL FEATURES

The floor of the Basin is the bed of an old Pleistocene lake, Pluvial Lake Modoc.[1] The meandering shoreline of the old lake is shown by a black line in figure 1.2. All that is left of Lower Klamath Lake (B) and Tule Lake (C) today are small remnants in the form of sumps, usually well-populated with wildfowl. In Oregon the trend of the ranges is northwest-southeast; in California the ranges are more widely spaced and trend north-south. Lava flows from the south covered parts of this area in very recent geologic time, completely obliterating parts of the old shoreline. Letters indicate the various basins and the principal places. Williamson River, the largest, enters the map area on the north and empties into Upper Klamath Lake. Sprague River flows westward and joins

Figure 1.2. Map of the shoreline of old Lake Modoc (opposite page) and the location of many of the places mentioned in the text. In the south lava flows encroached onto the beds of Lower Klamath lake and Tule Lake (dashed lines), covering the old shoreline.

LEGEND

A. Upper Klamath Lake
B. Lower Klamath Lake
C. Tule Lake
D. Swan Lake Basin
E. Yonna Basin
F. Poe Valley
G. Langell Valley
(K.) Klamath Falls

(Al.) Altamont
1. Modoc Point
2. Williamson River
3. Plum Hills
4. Link River
5. Lake Ewauna
6. Olene
7. Lost River
8. Spring Lake Valley
9. Klamath River
10. Keno
11. Miller HIll
12. Turkey Hill
13. Malin
14. Stukel Mountain
15. Klamath Hills
16. Bryant Mountain
17. Big Tableland
18. Modoc Lava Beds
19. Clear Lake Reservoir
20. Hovey Point
21. Gerber Reservoir
22. Oregon California Boundary

THE SHORELINE OF OLD LAKE MODOC

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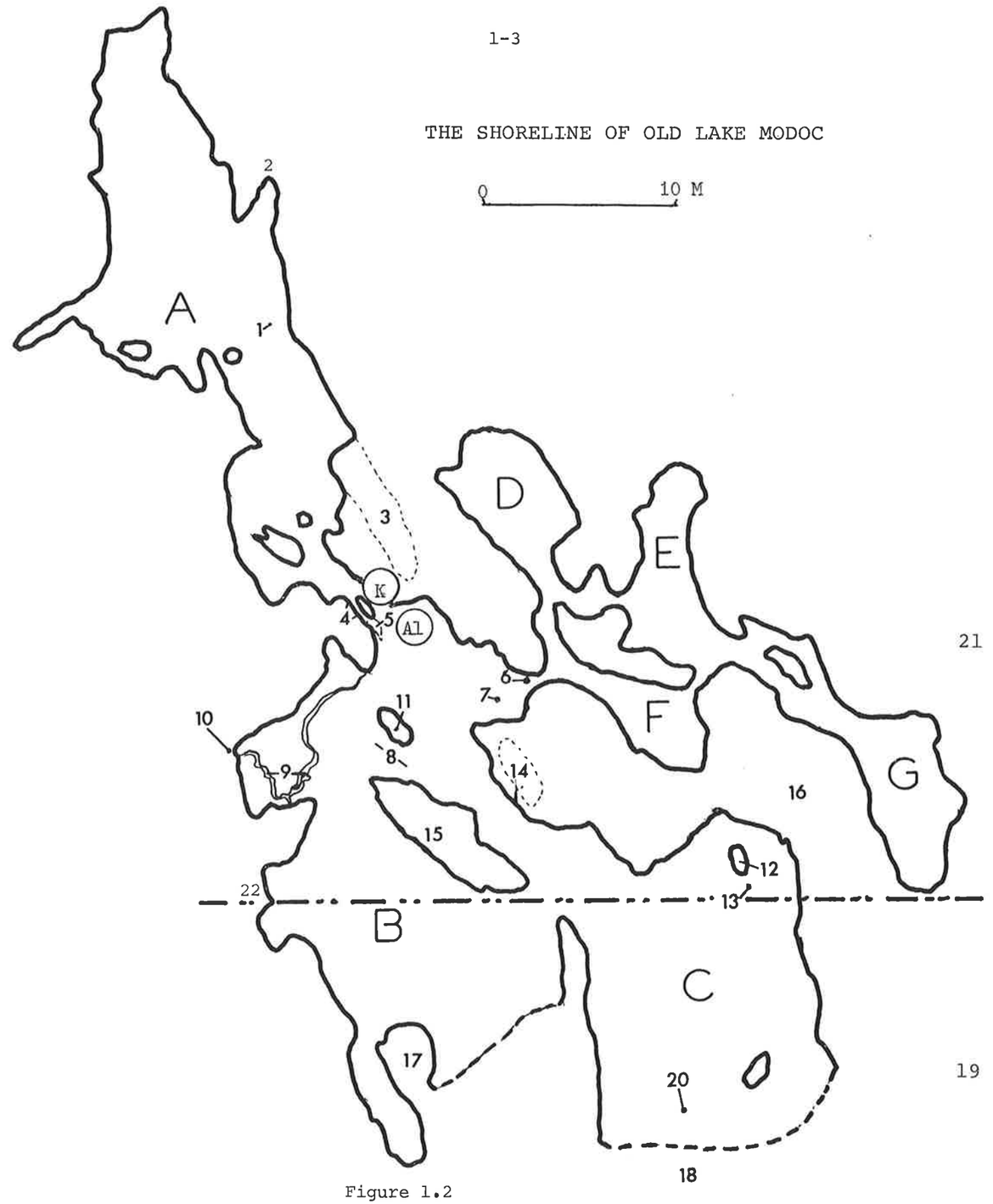

Figure 1.2