# PANEL

## PHOTO INTERPRETATION\*

#### MODERATOR

Dr. John H. Roscoe, of the U. S. Air Force (Hdqs.) Washington, D. C.

### PARTICIPANTS

Mr. Matthew Witenstein

Dr. Ellis L. Rabben Mr. George F. Bigelow

Mr. Henry W. Dill, Jr. Mr. Alexander A. Simontacchi, Mr. Grover A. Choate, and Mr. David A. Bernstein Mr. Gordon R. Heath

Dr. Ethan D. Churchill Mr. Richard L. Stitt Mr. Cullen E. Waldo Mr. Robert P. Ireland Mr. Henry W. Dill, Jr. The Use and Limitations of Aerial Photography in Urban Analysis and Planning

The Eyes Have It

A Preferred Approach to the Military Interpretation of Industries

Photo Interpretation in Flood Control Appraisal<sup>†</sup>

- Considerations in the Preparation of Keys to Natural Vegetation
- The Associative Method of Regional Photo Interpretation
- Association Analysis Applied to the Interpretation of Aerial Photographs

Problems in the Construction of Landform Keys

A Classification of General Problem Types in Photo Interpretation

### INTRODUCTION

**P**RESIDENT LUNDAHL: This is the fourth in a series of panels and symposia on Photo Interpretation which have been presented at our Annual Meetings. They have revealed the wide range of interest, not only within the military organizations, but also the Federal, commercial and private practice. The program this year is the longest that we have had—a full day devoted to Photo Interpretation.

Dr. John Roscoe, of the U. S. Air Force, has organized and will head this operation. He taught cartography, photogrammetry, geography and economics at a number of universities, and photo interpretation at the Army Air Force, Navy and Marine Corps schools. He is the commanding officer of a Marine Corps reserve photo intelligence group. In 1946, 1947 and 1948, he was the Staff Photogrammetric Officer, Cartographer and Geographer for the Navy's Operations in Antarctica. He participates regularly in the development of equipment, keys and techniques for photo interpretation as the Air Force representative to the Joint Chiefs of Staff for this purpose.

DR. ROSCOE: The field of photo interpretation is enriched by people who collectively possess a great variety of experiences. In almost no other professional group does one find people who are qualified in everything from alpha to omega. There are photo interpreters who are engineers, archeologists, geologists, foresters, and geographers as well as those who perform photo interpretation through the telescope, the microscope or via X-ray photography.

This year's program is divided into two parts. The panel is concerned with papers on all phases of photo interpretation, including the controversial subject of keys; the symposium will be devoted to keys and their value. The schedule has been planned

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† This paper was published in the March 1955 issue.

EDITOR'S NOTE: A major portion of biographical material presented by the Moderator has been omitted and much of the balance changed in position. Also introductions of individual papers and some miscellaneous material has been lessened in length, rearranged or omitted. with time allocated between papers for audience participation. This frequently brings out points of interest not contained in the papers themselves.

The participants in this panel have proven their expertness in photo interpretation. I will not attempt to describe fully what they have done and are now doing. Mr. Witenstein, who will present the first paper, was with the O.S.S. during World War II, and with the Army in the C.B.I. Theater. He is now with the Army Map Service, and is a consultant on photo interpretation with engineering firms. His particular field has been social and economic interpretation of aerial photographs.

Dr. Ellis L. Rabben is a licensed optometrist and photo interpreter. Since World War II, he has performed special photo intelligence asignments for the Army Field Forces, U. S. Naval Photo Interpretation Center, Photogrammetry Inc., and the U. S. Forest Service. He is also a professional writer.

Mr. George Bigelow's experience includes that of a Naval Officer photo interpreter in two wars and a civilian expert photo analyst for the Navy and Agriculture Departments.

Mr. Dill has been with the Soil Conservation Service since 1935 where he has worked on problems of field mapping, erosion and sedimentation, flood control and resource surveys. During World War II he served in the Air Force as a photo intelligence officer.

Mr. Alexander Simontacchi has been using air photos since 1935 in type mapping and forest management. He has as co-authors Grover A. Choate and David A. Bernstein. All three men are associated with the Forest Service Photo Interpretation Project and are professional foresters.

Mr. Gordon Heath, a professional for-

ester for eighteen years, is a specialist in timber sales, timber management, and in photo interpretation. After service with the U. S. Marine Corps, Mr. Heath designed the Multiplotter and several stereoscopes, and developed the stereo-mosaic, the diagrammatic dichotomous key, and the integrated associative key.

Mr. Richard L. Stitt is a geologist whose experience includes compilation of engineering maps, work as an aerial photographic interpretation analyst for the U.S. Air Force, and now the compilation of regional aerial photographic interpretation keys for the Aero Service Corporation. His co-author Dr. Ethan D. Churchill is a forester and ecologist. He was an aerial photogrammetric analyst with the U.S. Air Force. He is now a member of the staff of the U.S. Department of Agriculture Graduate School and is a consultant, specializing in Systems and Intelligence Analysis. He is affiliated with the Aero Service Corporation and several other firms as a consultant in photo interpretation matters. Mr. Churchill will read the paper.

Mr. Robert P. Ireland has made wide use of aerial photography for geological applications. He has worked on site explorations and on foundations and soils studies pertinent for dams, airfields, tunnels and other structures and has specialized in the photo interpretation of terrain for military purposes with the Beach Erosion Board and with the Forest Service. Mr. Cullen E. Waldo is an oil geologist with experience in foreign lands. With the U. S. Forest Service he has worked on engineering surveys, maps, photogrammetric engineering and photo interpretation.

Without special introduction Mr. Witenstein's paper will be read and discussed. It will then be followed by the papers prepared by other members of the Panel.