

**UNCLASSIFIED**

**AD 408 893**

**DEFENSE DOCUMENTATION CENTER**

**FOR**

**SCIENTIFIC AND TECHNICAL INFORMATION**

**CAMERON STATION, ALEXANDRIA, VIRGINIA**



**UNCLASSIFIED**

**NOTICE:** When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

408893

JPRS: 19,437

OTS: 63-21933

28 May 1963

AD NO.

DDC FILE COPY

ABSTRACTS FROM EAST EUROPEAN  
 SCIENTIFIC AND TECHNICAL JOURNALS  
 No. 185  
 (Earth Sciences Series)

*Scale 4*

408 893

DDC  
 RECEIVED  
 JUL 10 1963  
 RECEIVED  
 TISIA B

U. S. DEPARTMENT OF COMMERCE

OFFICE OF TECHNICAL SERVICES

JOINT PUBLICATIONS RESEARCH SERVICE

Building T-30

Ohio Drive and Independence Avenue, S.W.  
 Washington 25, D. C.

Price: \$.50

## FOREWORD

This publication was prepared under contract for the Joint Publications Research Service as a translation or foreign-language research service to the various federal government departments.

The contents of this material in no way represent the policies, views or attitudes of the U. S. Government or of the parties to any distribution arrangement.

### PROCUREMENT OF JPRS REPORTS

All JPRS reports may be ordered from the Office of Technical Services. Reports published prior to 1 February 1963 can be provided, for the most part, only in photocopy (xerox). Those published after 1 February 1963 will be provided in printed form.

Details on special subscription arrangements for JPRS social science reports will be provided upon request.

No cumulative subject index or catalog of all JPRS reports has been compiled.

All JPRS reports are listed in the Monthly Catalog of U. S. Government Publications, available on subscription at \$4.50 per year (\$6.00 foreign), including an annual index, from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

All JPRS scientific and technical reports are cataloged and subject-indexed in Technical Translations, published semimonthly by the Office of Technical Services, and also available on subscription (\$12.00 per year domestic, \$16.00 foreign) from the Superintendent of Documents. Semimonthly indexes to Technical Translations are available at additional cost.

ABSTRACTS FROM EAST EUROPEAN  
SCIENTIFIC AND TECHNICAL JOURNALS

No. 185

- Earth Sciences Series -

This report consists of abstracts of articles from the East European scientific and technical journals listed in the table of contents below.

Table of Contents

	<u>Page</u>
<b>HUNGARY</b>	
<u>Geodesia es Kartografia, Budapest, Vol 15, No 2, 63</u>	1
<b>POLAND</b>	
<u>Bulletin de l'Academie Polonaise des Sciences. Serie des Sciences Geologiques et Geographiques, Warsaw, Vol 10, No 4, 62</u>	9

HUNGARY

ANTOS, Zoltan, [affiliation not given].

"Some Current Problems in Geodesy and Cartography"

Budapest, Geodesia es Kartografia, Vol 15, No 2, 1963, pp. 81-85.

Abstract: The following questions were discussed: organization of research under the auspices of the State Office for Geodesy and Cartography (Allami Földmérési es Terkepszeti Hivatal); preparation of badly needed new maps of Hungary; preparation of the Hungarian National Atlas; training of personnel; instrument manufacture; and implementation of findings in the course of research conducted in Hungary and abroad. No references.

1/1

HUNGARY

TARCY-HORVACSE, Antal, Academician, Ph. D., [affiliation not given].

"Compensation of Point Connections with Measured Lengths"

Budapest, Geodesia es Kartografia, Vol 15, No 2, 1963, pp. 86-88.

Abstract: Compensation of line networks by means of observed data can be accomplished by relatively simple equations; however, these equations contain a substantial number of unknowns. A simplified method of calculation was described using measured lengths transformed into correlated observations or into Thiele-type free functions. In some instances this transformation can be achieved by employing an auxiliary set of coordinates. The method is demonstrated on a practical example. Three references, including 2 Russian and 1 German.

1/1

HUNGARY

HAGAY, Istvan, Ph. D., [affiliation not given].

"Calculation of Mean Error for Derived Observations"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, pp. 89-99.

Abstract: Derived observation results are of two types; one is derived from multiple observations on the same phenomenon, the other is derived from various types of observation data. For observations of the first type, simple mathematical procedures may be employed with good results. A method was developed to deal with the calculation of mean error in derived observations of the second type and the applicability of the method was demonstrated on examples covering several types of such observations. Fifteen references, including 6 German, 8 Hungarian, and 1 Western.

1/1

HUNGARY

LUKACS, Tibor, Ph. D., [affiliation not given].

"Application of Digital Electronic Computers and Mechanical Data Processing Installations for Geodetical Purposes in Hungary"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, pp. 100-110.

Abstract: The equipment used for geodetical calculations and data processing in Hungary includes the Soviet-made SAM-type card sorter, the Soviet-made Ural-1 electronic computer, the Polish-made UMC-1 electronic computer, the Robotron ASN 18 data-processing installation made in the German Democratic Republic, the IBM 421 Tabulator, the IBM 628 computer, the IBM 565 card puncher, and the M-3 electronic computer assembled in Hungary (designed on the basis of Soviet data). Typical applications in the field of geodesy were discussed. Eight references, including 7 Hungarian and 1 Dutch.

1/1

HUNGARY

HOMORODI, Lajos, Ph. D., [affiliation not given].

"The State of Geodesy and Trends in its Development"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, pp. 110-114.

Abstract: In the field of height determination, the author reviews the Melodenskiy model and the semi-geoid; the three-dimensional geodesy as developed by Hotin; and the Ledersteger theory for spheroids [no references given for these]. After reviewing the main problems of contemporary geodesy in a general manner, the problems of the newly emerging nations were discussed. They require simple methods suited to the level of education of personnel available. No references.

1/1

HUNGARY

PALAZS, Laszlo, [affiliation not given]

"Some Current Problems in the Preparation of Large-Scale Maps"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, pp. 114-119.

Abstract: The requirements for accurate and detailed maps reflecting the contemporary agricultural units and plant installations in Hungary were described. It was stressed that by properly planning the operations involved appreciable savings in labor can be realized. Old maps have to be updated and new maps have to be prepared. It is essential that all maps conform to the same principle and employ the same set of symbols. The temptation to sacrifice accuracy in order to be able to provide the new landholders with maps promptly should be resisted. Some further thinking is required to decide how to best implement on maps the political ideology that led to the changes that are to be shown. No references.

1/2

Best Available Copy





[HUNGARY]

MADO, Sandor, Ph. D., [affiliation not given].

"International Conference on Cartography in Budapest"

Budapest, Geodesia es Kartografia, Vol 15, No 2, 1963, pp. 124-127.

Abstract: The Committee on National Atlases of the International Geographical Union held its plenary session in Budapest from 7 to 11 Sep 1963. Twenty-four delegates from 15 countries attended; five from Socialistic countries, six from Capitalistic countries in Europe, one from America, one from Africa, and one from Asia. The resolution adopted at the end of the Conference was given.

[HUNGARY]

IREDI-MONNAR, Laszlo, Ph. D., [affiliation not given].

"The Road Maps of ETZLAUB, Erhard, from Nurnberg"

Budapest, Geodesia es Kartografia, Vol 15, No 2, 1963, pp. 127-129.

Abstract: The road maps prepared by the Nurnberg, Germany, cartographer, ETZLAUB, Erhard, in 1500-1501 a.d., were described. These maps, of historical interest, encompass the region of contemporary Germany, Poland, and Hungary. Attempts to correlate designations on these maps with known geographical features were described. The maps were judged to represent a milestone in the development of modern cartography. No references.

1/1

Best Available Copy

HUNGARY

SZADECZKY-KARDOSS, Gyula, [affiliation not given].

"Australian Efforts for the Adoption of New International Ellipsoid Dimensions"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, p.129.

Abstract: The article of LAMBERT, B.P., "A Figure of the Earth in Australia" (The Australian Surveyor (Sydney), 1962, pp. 178-185), was discussed. Lambert's findings confirmed those of KRASOVSKIY, F.N. ("Rukovodstvo po Vizhei Geodezii", Part 2, Moscow, 1942, p. 466) and contradict those of HAYFORD, J.F., ("Supplementary Investigation in 1909 of the Figure of the Earth and Isostasy", Washington, 1910). Six references, including 3 Hungarian, 1 Russian, 1 Australian, and 1 U.S.

1/1

HUNGARY

CSATKAI, Denes, [affiliation not given].

"Development of a Horizontal Basic Point System in Canada with the Aid of the Tellurometer and the Geodimeter"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, pp. 129-130.

Abstract: The Lecture of ROBERTS, W.F., Director of the Geodetic Office at the Province of New Brunswick, Canada, presented at the 1962 International Congress of the International Federation for Geometry was discussed. The lecture was co-authored by KONECNY, G., a Professor at the University of New Brunswick. The lecture has been published [no reference given].

1/1

HUNGARY

NAGY, Jeno, [affiliation not given].

"Large-Scale Photogrammetry in Austria"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, pp. 130-131.

Abstract: The article of KAMENIK, W., ("Large-Scale Photogrammetry" [Die Grossmassstabliche Photogrammetrie], Osterreichische Zeitschrift fur Vermessungswesen, 1962, No 2) was discussed. The area measured in the course of the work described encompasses the following Austrian localities: Murfeld, Neudorf, Graz-Stadt, Messendorf, and Graz-Stadt-<sup>tp</sup> Mondorf.

1/1

HUNGARY

RADO, Sandor, Doctor of Geographical Sciences [affiliation not given].

"Changes on the Map"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, pp. 131-135.

Abstract: Changes affecting the maps (new railroads, pipelines, name changes, roads, population data, etc.) were given for Hungary, South-Arabian Federation (Aden), Afghanistan, Soviet Union, U.S., Canada, Antarctica, Portugal, Australia, Austria, Belgium, France, Great Britain, Brazil, Czechoslovakia, South Vietnam, Cambodia, Ivory Coast, Ethiopia, German Federal Republic, Spain, Gabon, Congo, Greece, Guadeloupe, Japan, Jordan, Yugoslavia, China, Laos, Poland, Lybia, Mauretania, German Democratic Republic, Italy, Switzerland, Nigeria, West Berlin, Pakistan, Canal Zone, Rumania, Sweden, Senegal, Tanganyika, Turkey, and Venezuela.

1/1

[HUNGARY]

RAUM, Frigyes, [affiliation not given]

"Annual Meeting of the Institute for Geodesy and Cartography (Geodezia es Kartografiai Egyesulet)"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, pp. 136-140.

Abstract: The Institute held its third annual meeting 13 Dec 1962 in Budapest. Almost 300 members attended. The Presidential address delivered by HOMORODI, Lajos, Ph. D., was quoted. Awards were presented to MILASOVSEKY, Bela, Doctor of Technical Sciences, and REDEY, Istvan, Doctor of Technical Sciences. The recipients' addresses were quoted. The Secretary General, RAUM, Frigyes, submitted his report on the previous year's operations. The Chairmen of the Institute's various Committees were elected and the new slate was given. The resolutions for the future were quoted. The next meeting was scheduled for the Fall of 1965.

1/1

[RAUM, Frigyes, [affiliation not given].

"Meetings"

Budapest, Geodezia es Kartografia, Vol 15, No 2, 1963, p. 141.

Abstract: The programs of the following meetings held under the auspices of the Institute for Geodesy and Cartography (Geodezia es Kartografiai Egyesulet) were described: Board of Directors, 16 Jan 1963; Miskolc Group [date not given]; Pecs Group [date not given]; Sopron Group [date not given]; and Szolnok Group [date not given]. The titles of lectures presented and the lecturers' names were given.

1/1

Best Available Copy

POLAND

MAREBSKI, W. , of the Museum of the Earth, Institute of Geological Sciences, Polish Academy of Sciences (Museum Ziemi, Zaklad Nauk Geologicznych, PAN).

"A New Scheme of Rapid Analysis of Silicates by Means of Complexometry." [English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 186-190.

Abstract: [ Author's Russian summary modified ] A silicate sample was fused with sodium carbonate, and silica were separated by evaporation with hydrochloric acid on a water bath. The author suggests a method of complexometric determination of carbonates in silicon rocks. Twenty three references, including 3 Polish, 2 German, 8 Russian, and 10 Western.

1/1

POLAND

MAREBSKI, W. , of the Museum of the Earth, Institute of Geological Sciences, Polish Academy of Sciences (Museum Ziemi, Zaklad Nauk Geologicznych, PAN).

"A Method of Calculation of the Mineral Composition of Rocks of the Greenschist Facies." [English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 191-196.

Abstract: [ Author's Russian summary modified ] The qualitative mineral composition of rocks is determined by microscopic, thermal and x-ray methods. From the analysis of data expressed in terms of cation percentages the author calculates the quantitative mineral composition of rocks. Thirteen references, including 2 Polish, 2 Russian, 2 German, and 7 Western.

1/1

POLAND

KAMIENSKI, M., of the Department of Non-Metallic Mineral Deposits, School of Mining and Metallurgy (Katedra Złoz Surowcowych Skalnych, Akademia Gorniczo-Hutnicza) in Krakow.

"On the Occurrence of Fluorite and Dickite at Leszka Gorna near Ciessyn." [English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 197-202.

Abstract: [Author's Russian summary modified] Traces of various forms of fluorite were found in the quarry of Leszka Gorna. Four dislocations were observed in the quarry wall. Where there was fluorite there also was dickite. Because of the lack of reliable data, the origin of the occurrence of fluorite and dickite has not yet been explained. Twelve references, including 8 Polish, 1 Russian, 2 German, and 1 Western.

1/1

POLAND

SIKORA, W., of the Carpathian Field Station, Geological Survey of Poland (Karpacka Stacja Terenowa, Instytut Geologiczny) in Krakow.

"New data on the Geology of the Pieniny Klippen Belt." [English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 203-211.

Abstract: [Author's Russian summary modified] The author states that the extremely complex geological picture of the Pieniny Klippen Belt can now be simplified to a certain extent. The structure of the Polish part of the Pieniny Klippen Belt is given in a diagrammatical form. Thirty one references, including 27 Polish, 2 Czechoslovakian, and 2 Western.

1/1

POLAND

KOTANSKI, Z., of the Laboratory of Dynamic Geology ( Zaklad Geologii Dynamicznej) at Warsaw University (Universytet, Warszawa)

"On the Character of the Carpathian Geosyncline." [English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 213-217.

Abstract: [Author's Russian summary modified] The author gives proofs that the Mesozoic Carpathian geosyncline did not have a miogeosynclinal character. There are three phases differentiated in the development of the epimiogeosyncline. The epimiogeosynclinal basin of the Central Carpathian Paleogene disappeared owing to the movements of the Sava phase. Twenty one references, including 15 Polish, 2 Czechoslovakian, 1 Russian, 1 German, and 2 Western.

1/1

POLAND

BIRKENMAJER, K. , of the Laboratory of Geology, Institute of Geology, Polish Academy of Sciences ( Pracownia Geologiczna, Zaklad Nauk Geologicznych, PAN ) in Krakow.

"Paleontological Evidence of the Age of the Magura Paleogene North of the Pieniny Klippen Belt of Poland ( Carpathians )." [English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 219-221.

Abstract: [Author's Russian summary modified] The problem is discussed of the formation of separate chains of the Magura flysh in the zone adjacent to the north of the Pieniny Klippen Belt in Poland. The results of researches of other scientists are quoted. Four references, including 3 Polish, and 1 Western.

1/1



POLAND

BOGACZ, K., and WEGLAWIK, S., of the Department of Geology, School of Mining and Metallurgy ( Katedra Geologii, Akademia Gorniczo-Hutnicza ) in Krakow.

"The Geological Position of the 'Boundary Flysh' (Nordliche Grenzzone) on the Southern Slopes of the Gorce Mountains." [English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 223-229.

Abstract: [ Authors' Russian summary modified ] In this article the authors make an attempt to explain the relation of the "Boundary Flysh" to the upper layers. They also attempt to determine the age and tectonics of the "Boundary Flysh". The work is based on the geological map a fragment of which is given in the paper. The Gorce mountains Flysh belongs to the southernmost part of the Magura Nappe in Poland. Twenty six references, including 22 Polish, 2 Czechoslovakian, 1 Russian, and 1 German.

1/1

POLAND

MALECKI, J., of the Department of Paleontology, School of Mining and Metallurgy ( Katedra Paleontologii, Akademia Gorniczo-Hutnicza ) in Krakow.

"Stratigraphical Significance of the Bryozoa of the Carpathian Flysh." [English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 231-235.

Abstract: [ Author's Russian summary modified ] The author describes his studies of the bryozoan fauna preserved only in the form of fragments in detrital limestones. The rock samples for these studies were taken from various places. The richest assemblages were prepared from samples from Wola Luzanska and Skalnik where the fragments of fauna were preserved in the best form. On the basis of the assemblage consisting of 143 species and identified by the author, the age of the detrital sandstones was determined. Eight references, including 6 Polish, and 3 Western.

1/1

POLAND

HORZEMSKI, J., of the Department of Geology, School of Mining and Metallurgy (Katedra Geologii, Akademia Gorniczo-Hutnicza) in Krakow.

"On the Relation of the so-called Vitriol Clays to the Ore-Bearing Limestones and Dolomites of the Middle Triassic in Upper Silesia."  
[English article]

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Geologiques et Geographiques, Vol 10, No 4, Dec 62, pp 237-243.

Abstract: [Author's Russian summary modified] The purpose of the author's studies was to determine the position of the investigated clays, their relation to the limestones and dolomites, their geological pattern of formation, and also to analyze their position with respect to the surrounding rocks. A profile of 23 exposures was drawn and their detailed study made. Five photographs are reproduced. Seven references, including 5 Polish, and 2 German.

1/1

- END -

2542, 2587  
CSO: 2000-N