

Zeitschrift: Beiheft zum Jahrbuch der Geographischen Gesellschaft von Bern
Herausgeber: Geographische Gesellschaft Bern
Band: 5 (1978)

Anhang: Maps

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Simen Mountains – Ethiopia
Volume I

Cartography and its Application for Geographical and Ecological Problems

Edited by B. Messerli and K. Aerni

Maps

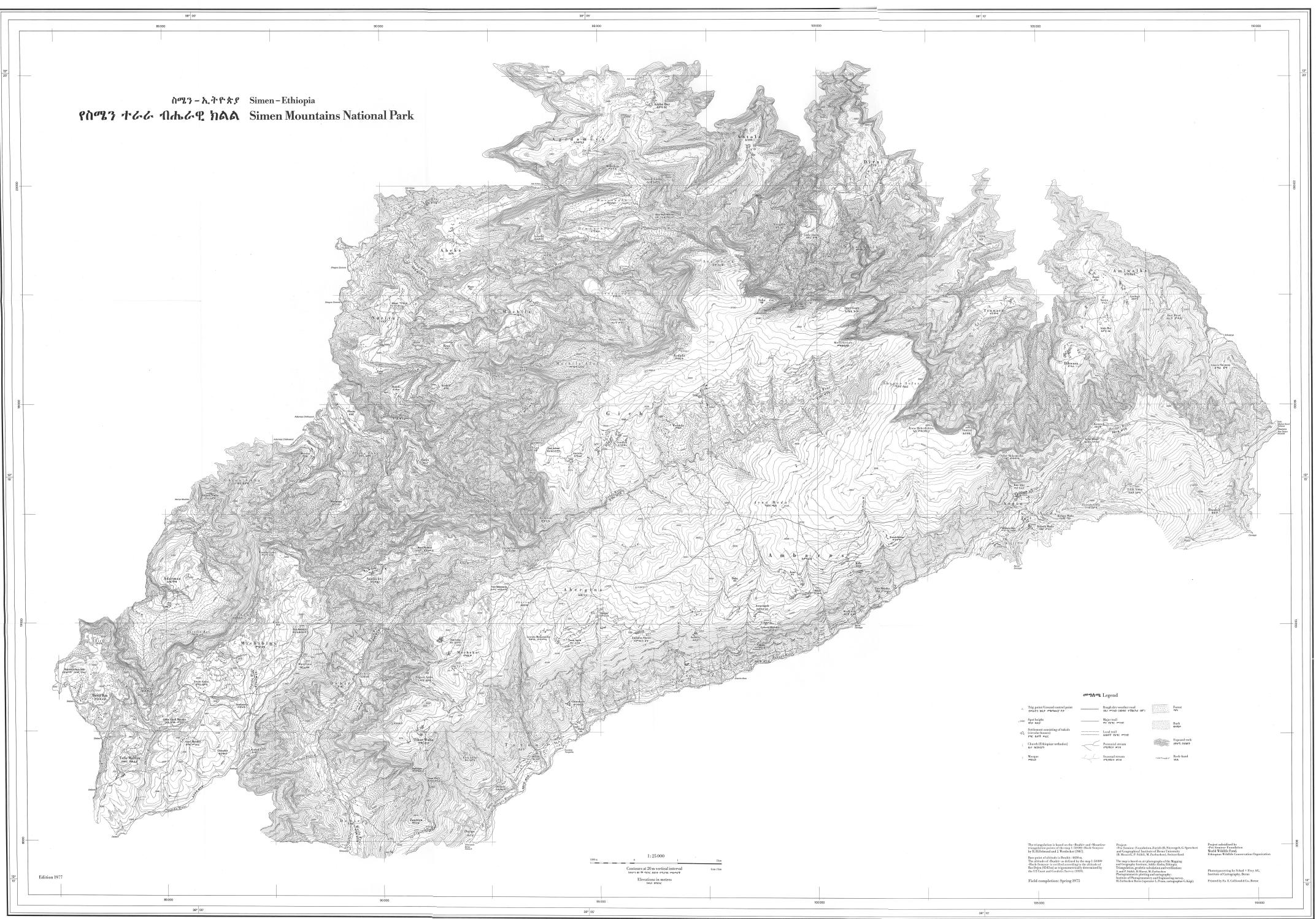
- P. Stähli and M. Zurbuchen: Two Topographic Maps 1:25 000
“Simen Mountains National Park”, Ed. 1977
“Debark”, Ed. 1977
- P. Stähli: “Changes in Settlement and Land Use in Simen,
Ethiopia, from 1954 to 1975”, 1:17 500
- R. Nägeli: “Debark – Functional Structure of an Ethiopian
Market Town”, 1:2000
“Debark – Growth of Settlement and Forest
between 1964 and 1976”, 1:5000
- H. Hurni: “Soil Erosion, Upper Jinbar Valley, Simen-Ethiopia”,
1:25 000
- K. Aerni: “Simen (Ethiopia) – Panorama Imet Gogo 3926m”

Contribution of the Commission on Mountain
Geoecology (International Geographical Union)



Geographisches Institut der Universität Bern 1978

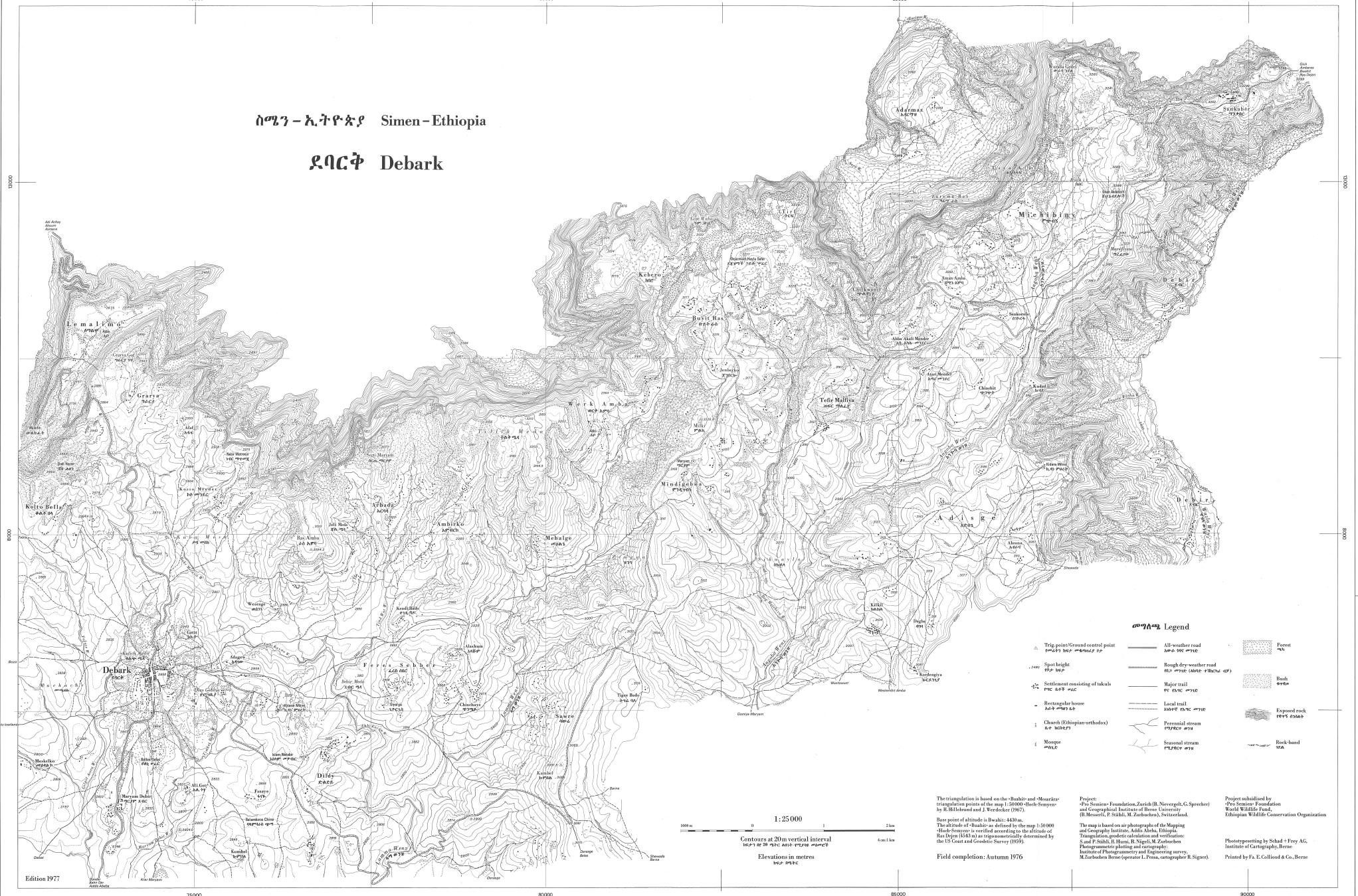
የስሜን ተራራ ሚኬራዊ ክልል Simen Mountains National Park



37°55'

38°00'

90000



CHANGES IN SETTLEMENT AND LAND USE IN SIMEN, ETHIOPIA, FROM 1954 TO 1975

Buildings

- built
- Cultivated Land
 - cultivated before 1954 in the eastern part of the map (Argis, Amniwala, Dihwara, Tsirota, Tsi)
 - before 1954 in the western part of the map (Goch, Abergina, Ambarsa)

Increase

- built
- cultivated land added 1954 to 1964
- cultivated land added 1964 to 1975

Decrease

- removed
- abandoned 1954 to 1964
- abandoned 1964 to 1975

built removed

- land cultivated 1954 to 1964 and abandoned 1964 to 1975

Location of settlements and cultivated land

eastern part 1954 1964 1975
 western part 1954 1964 1975

Settlement consisting of hukuls (greater houses)
 Church (Ethiopian-orthodox)

● Mosque

— Major trail

- Local trail

- - Perennial stream

- - - Seasonal stream

— Forest

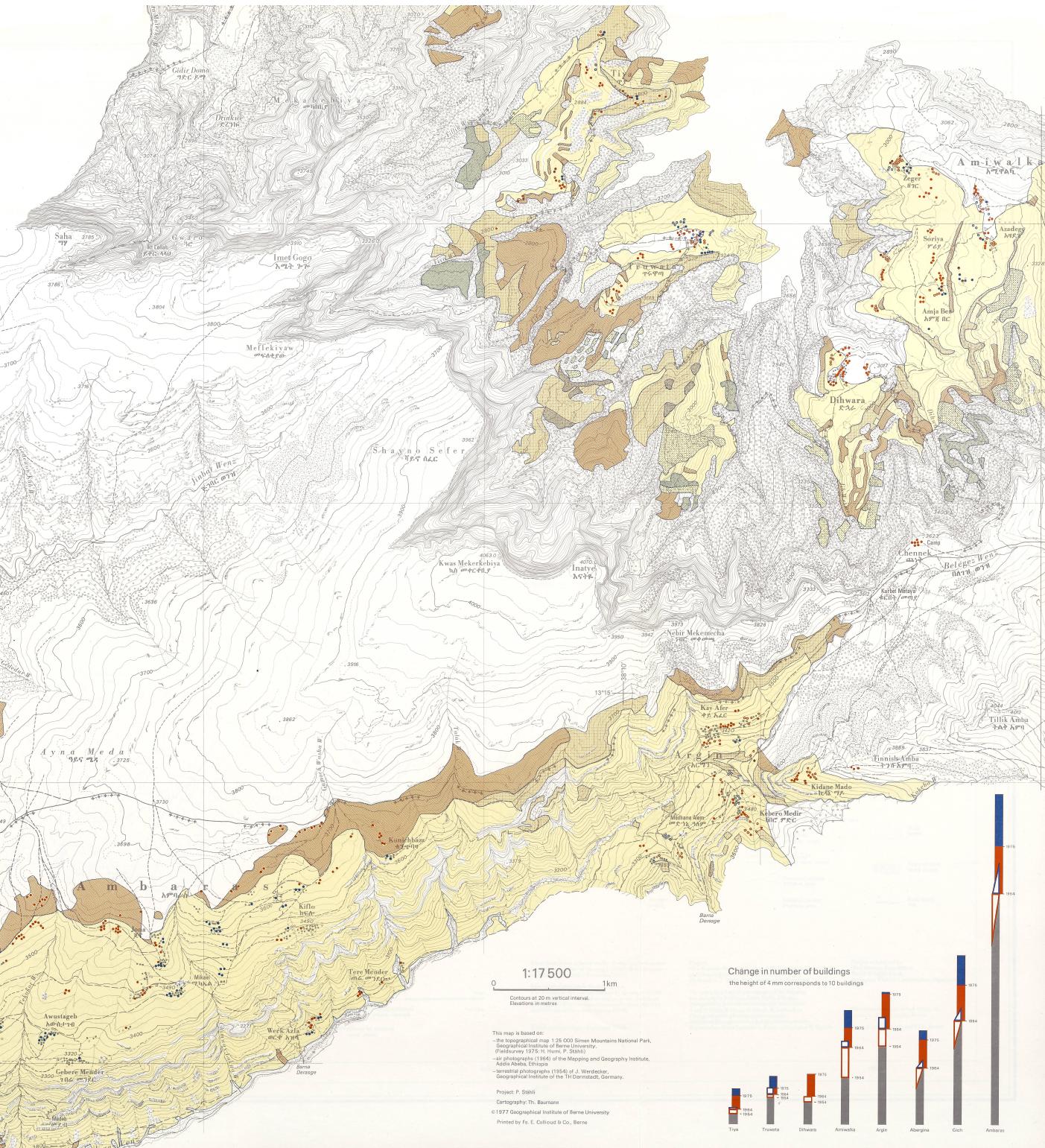
— Bush

— Grass-steppe

— Exposed rock

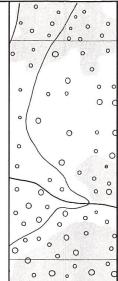
— Rock-band

— National Park boundary



KEY FOR TOPOGRAPHIC SITUATION

- Fence of brushwood or tin
- Minor Road or Path (schematically surveyed, no classification)
- Perennial Stream
- Seasonal Stream
- Eucalyptus-Forest
- Contour, Interval 10 metres



SIMEN-DISTRICT (AWRAJA) – ETHIOPIA

DEBARK – Growth of Settlement and Forest between 1964 and 1976

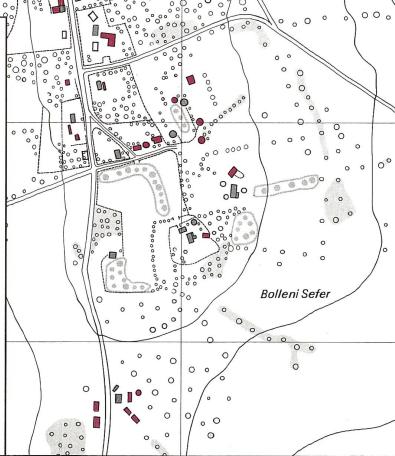
1 : 5000

Ruedi Nägeli · Institute of Geography · University of Berne · Switzerland



KEY FOR VARIATIONS OF SETTLEMENT AND FOREST

- Rectangular or round Houses existing in 1964
- Houses constructed between 1964 and 1976
- Houses broken down between 1964 and 1976
- Eucalyptus-Forest existing in 1964 and 1976
- Eucalyptus-Forest cleared between 1964 and 1976
- Eucalyptus-Forest afforsted between 1964 and 1976



Scale 1 : 5000



SOURCE MATERIALS

Topographic situation after an aerial photograph of The Mapping and Geography Institute (Addis Ababa, 1964), based on a triangulation by P. and S. Stähli and H. Huni, a photogrammetric interpretation by The Institute of Photogrammetry and Engineering Survey M. Zurbuchen, and a complete verification and revision in the field at the scale 1:2000 in 1976 by R. Nägeli.

Variations of settlement and forest after a comparison of the aerial photograph of 1964 and the field survey of 1976.

Cartography by R. Nägeli and M. Zurbuchen

Phototypesetting by Schad + Frey AG, Institute of Cartography (Berne)
Printed by Fa. E. Colloud & Co. (Berne)

The field work has been supported by The Theodor-Schenk-Foundation (University of Berne) and The Populair Travelling Agency (Berne).

N.B. Because of the dense covering through forest in several parts of the aerial photograph, probably some houses have not been identified for the situation of 1964.

SIMEN-DISTRICT (AWRAJA) – ETHIOPIA
DEBARK – Functional Structure
of an Ethiopian Market Town

1:2000 – Field work 1976

Ruedi Nägeli · Institute of Geography · University of Berne · Switzerland



KEY FOR TOPOGRAPHIC SITUATION

- Fence of brushwood or tin
- Minor Road or Path (schematically surveyed, no classification)
- Perennial Stream
- Seasonal Stream
- Eucalyptus-Forest
- 2840 — Contour, Interval 10 metres

SOURCE MATERIALS

Topographic situation after an aerial photograph of The Mapping and Geography Institute (Addis Ababa, 1964), based on a triangulation by P. S. Stöhl and H. Humi, a photogrammetric interpretation by R. Nageli, and a field survey by R. Nageli, M. Lüthi, and H. G. Schmid, and a complete verification and revision in the field at the scale 1:2000 in 1976 by R. Nageli.
 Construction and function of houses surveyed by R. Nageli.

Photocopying by Scherzer AG, Institute of Cartography (Bern).

Printed by F. E. Cottrell & Co. (Berlin).

The field work has been supported by The Theodor-Schreiter-Foundation (University of Berne) and The Popular Travelling Agency (Berlin).

N.B.: The distribution of buildings and the different functions change over short periods of time, so that the situation shown here for 1976 does not necessarily prevail today.



Scale 1:2000

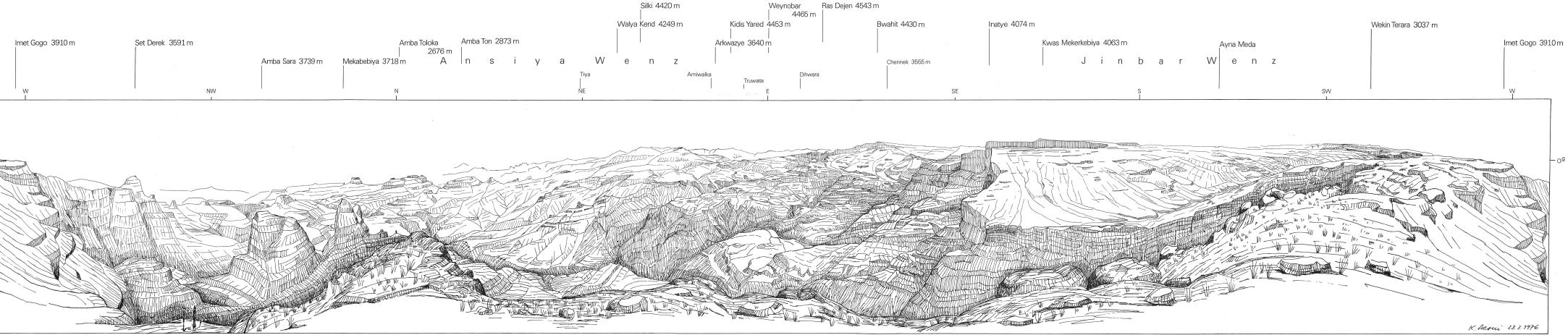
KEY FOR FORMAL AND FUNCTIONAL IDENTIFICATION OF HOUSES

- Construction**
- Civka-House, single or serial.
Usually made of wood and clay. Sometimes with foundation of stones, faced with tin or painted.
 - Gimb-House,
made of stones, bricks or cement.
 - House under construction.
 - Tukul, made of wood and clay. Grass-roof.
 - Empty house

Functional Classification

- | | |
|---|--|
| Trade and Market | Periodic Weekly Market |
| Retail Shop or Kiosk | --- |
| Store of Wholesaler | Daily-Market |
| | |
| Crafts | |
| Tailor | Barber |
| Weaver | Laundry |
| Smith | Grinding-Mill |
| Butcher | |
| | |
| Hotels and Taverns | |
| Hotel | Bar or Aleki-House |
| Inn | Tea-house |
| Eating-House | Tatto-House |
| Tea-House | |
| | |
| Public Services and Supply | |
| Public School | Mosque |
| High School | Power Station |
| Lower Secondary School | Gasoline Station |
| Post Office | Public Well In use, out of use |
| Telecommunications | |
| Health Station | |
| | |
| Administration | |
| Administrative Offices | District Police |
| Ministry of Education | Subdistrict Governor |
| CPD = Ministry of Agriculture | Subdistrict Court |
| Ministry of Finance | Eastern Local Community |
| Ministry of Land-Reform | Western Local Community |
| Veterinary Department | Local Association |
| District Governor | Ethiopian Wildlife Conservation Organization (Stone) |
| | |
| Living and Various | |
| Living House, usually with kitchen. | |
| These units may include some functions which cannot be surveyed correctly, such as basket-making, spinning, temporary store, temporary state etc. | |

Living House, usually with kitchen.
 These units may include some functions which cannot be surveyed correctly, such as basket-making, spinning, temporary store, temporary state etc.



SEMIEN (Äthiopien) – PANORAMA VOM IMET GOGO 3926 m

Standort: 38° 9' östl. Länge, 13° 17' nördl. Breite

SIMEN (Ethiopia) – PANORAMA IMET GOGO 3926 m

Soil Erosion

1:25000

Upper Jinbar Valley

Simen – Ethiopia

Hans Hurni
Institute of Geography
University of Berne

Cartography:
Ingrid Haack
Department of Cartography
Swiss Federal Institute of Technology Zurich

Imet Gogo
3926.0

Field completion: 1974

