

The Survey of Israel Heritage Website

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Fig Working Week

Pre-Conference Workshop

Eilat, 3 May 2009



1920: Survey of Palestine (SOP) was founded.

**1948: Survey of Israel (SOI) continued the
agency.**

**2003: Dr. Haim Srebro, Director General of SOI
decided to create a website, in order to
preserve the unique history of the
SOP/SOI.**



A Working Team of Four Was Chosen:

Zion Shitrug - Former Director of the Survey of Israel.

Sergio Duyeb – Former head of Cartographic Reproduction.

Yechiel (Hilik) Horovitz – Creator of Heritage Site.

Ofer Angert – The Web-Master, who supported the project.

Collecting Information



- 1. Interviewing veterans, beginning with the “elders”, who worked in the British Mandate period. After them – the “youngsters”, from the SOI period.**
- 2. Collecting documents, photos, certificates, annual reports, official publications, maps and academic theses.**
- 3. Searching data in libraries and archives.**
- 4. Assisted by Dr. Dov Gavish’s book, *Land and Map*, the Survey of Palestine, 1920-1948; and Dr. Ron Adler & Dr. Dov Gavish’s book *50 Years of Mapping Israel*.**

Interviewing veterans, beginning with the “elders”, who worked in the British Mandate period – First interview, Sep. 2003



Interviewing younger veterans from the SOI period, October 2003



Unique Data – An Example



The photo shows a tractor making a plow-line in order to draw the Armistice Demarcation Line between Israel and Egypt in the Gaza Strip in the 1950's. Taken by an Israeli surveyor.

Unique Data – Another Example



The students' soccer team at the Surveying school in Jennin, 1942. El-Husseini, from the famous family, who led the Palestinian People, with his Jewish friends, who were members in underground units.

The Website Sections



The SOP / SOI history

The SOP / SOI directors

The Survey work force

The departments of the SOP / SOI

Maps and mapping

Instruments and methods

Culture and atmosphere

Boundaries: Survey and demarcation

The SOP / SOI History



Purposes:

Establishment of the Geodetic Infrastructure

Land Survey and Cadastral Mapping

Topographic and Engineering Mapping (for new settlements, roads and new infrastructures)

Leisure

Military purposes

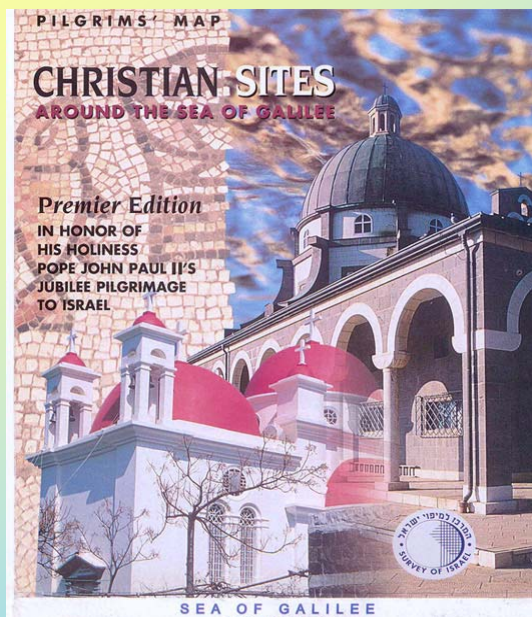
Historic or "special" events



An example to a Historic map for “special” events

- For the visit of his holiness, Pope John Paul II in 2000, the SOI published a special pilgrims’ map about Christian sites around the Sea of Galilee.

The cover page of the map



A sample of the map: The area of Tabgha



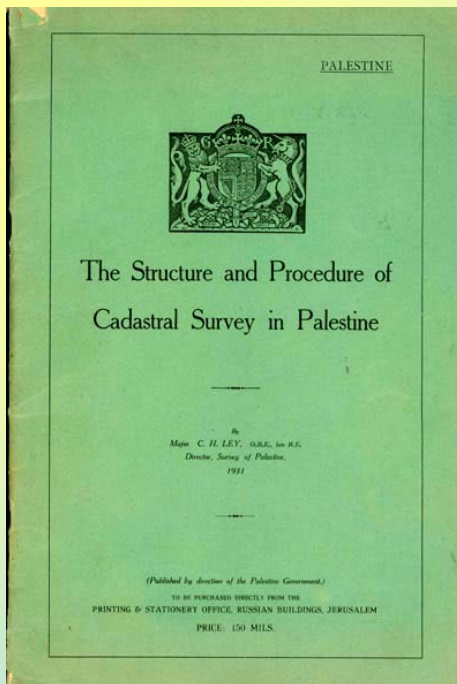
Cadastral Survey and Mapping



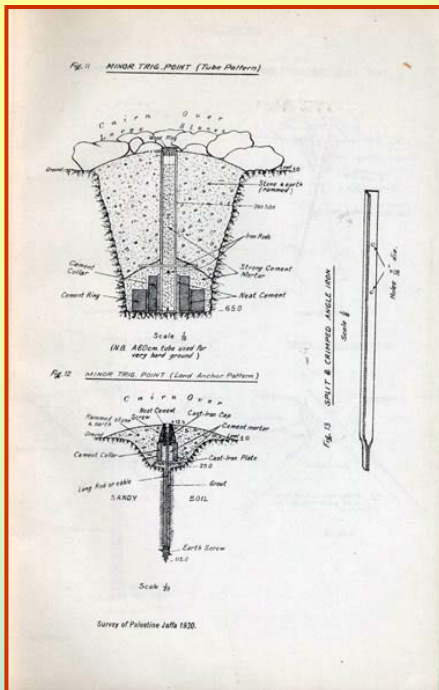
1920: SOP's establishment for cadastral survey and mapping; involved in Land Registration in order to promote Economic Development.

1928: A reform is implemented at the Survey Department after formalizing the Torrens System.

1931: A special publication deals with the cadastral survey regulations in Palestine.

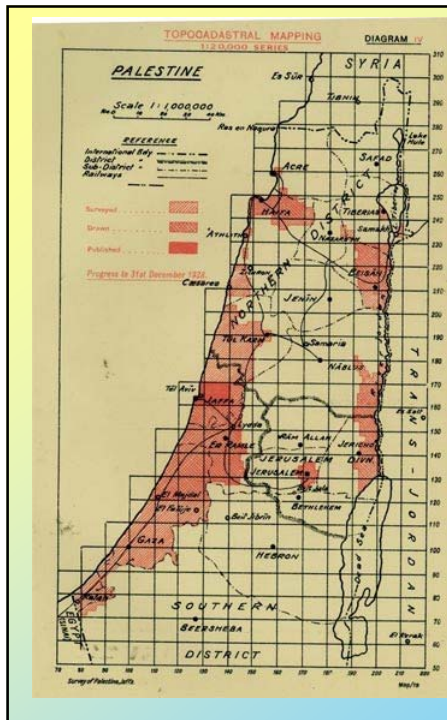


The opening page of the publication that deals with the cadastral survey regulations in Palestine, by C. H. Ley, Director of SOP, 1931.



From the publication:

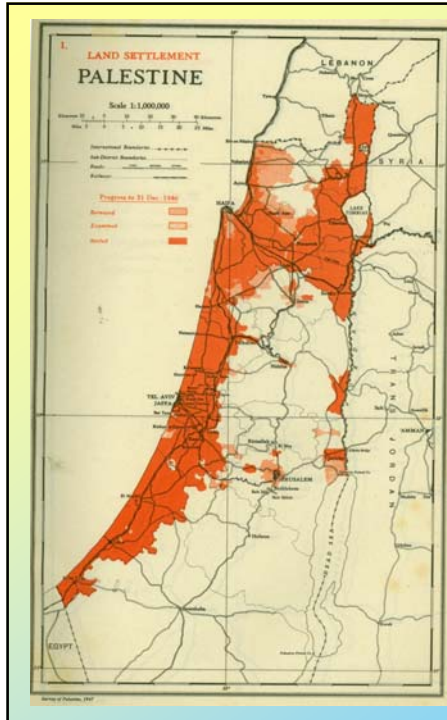
A drawing portraying how to mark and fix a triangulation point.



Cadastral Mapping
in 1928:

The cadastral mapping covers parts of the coastal plain and the Jordan Valley.

In the 1930's the cadastral survey almost came to a complete halt. Emphasis was placed on topographic maps.



Cadastral Mapping
in 1946:

The cadastral mapping covers 20% of Palestine's area, including the Coastal Plain, Jordan Valley, Hula Valley and most of the Galilee Region. The Negev Region was not surveyed.

State of Israel



1949-1956: The focus was on surveying for the new immigrants, including: housing, roads, employment etc. The cadastral survey almost came to a complete halt.

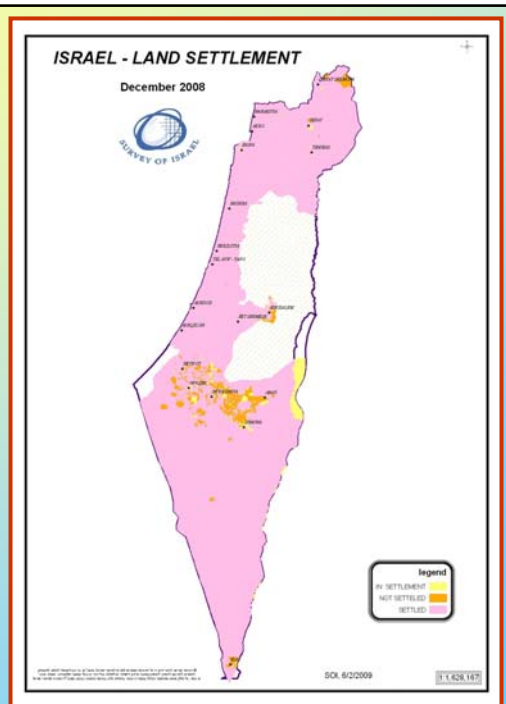
Toward the end of the 1950's the focus was on finalizing the cadastre in the Galilee Region.

During the 1960's- 1970's the Negev was surveyed and mapped.

During the 1980's the Golan was finalized.

2009 Status:

Almost 95% of Israel's lands, 20,877,136 dunams, are surveyed and mapped.



Back to The 1950's – 1960's:
Israel's First Years



**Building new houses,
new neighborhoods,
new settlements,
new towns.
Paving roads,
building new infrastructures.**

**A surveyor with a plane table – Measuring for
the Founding of the town of Dimona, 1950's**



Surveyors at a new building site in Beer-Sheva during the 1950's



A map of development towns in Israel, printed in August 1961.



**Planning
Ashdod's
port, 1960:**

**Base Measuring
with Invar String
– the first step
in building
Ashdod's port.**

**The sop/soi
building since
1931. The 1931's
photo – with Great
Britain's flags/ The
2000's photos –
with Israeli flags.
The building was
extended.**



משכן הקבע של מחלקת המידות בטרוננה, תל-אביב.



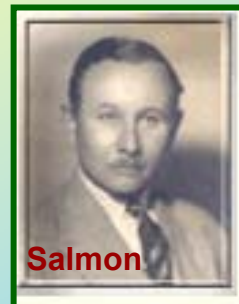
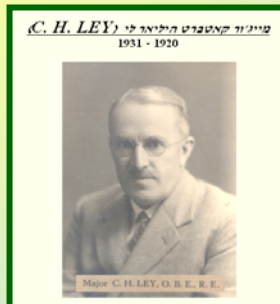
The SOP / SOI directors



12 directors: Six during the British Mandate. The first one, in 1920, was temporary, and another two were acting directors.

Since the establishment of the State of Israel in 1948 there have been six directors. The first one was temporary, and one was an acting director.

The website shows each of them: their managerial and professional preferences, and their contribution to the SOP / SOI.



Directors of SOP:



- C. V. Quinlan** (temporary): June-Dec. 1920
- C. H. Ley**: 1920-1931
- R. B. Crusher** (acting): 1931-1933
- F. J. Salmon**: Director – 1933-1935, and
Commissioner for Lands and Surveys: 1935-1938
- J. N. Stubbs**: CLS (acting): 1938-1939
- A. P. Mitchel**: 1940-1948



Directors of SOI:

Moshe Yohnovetski (temporary):1948

Yosef Elster: 1948-1971

Dr. Ron Adler: 1971-1992

Zion Shitrug: 1993-1994

Aviel Ron: 1994-2002

Giora Golod (acting): 2002-2003

Dr. Haim Srebro: 2003- present

Yosef Elster



Haim Srebro and Zion Shitrug



Aviel Ron



**Haim Srebro
and Ron Adler**



The Survey Work Force

During the mandate period most of the managers were British. The workers were locals: Moslems, Jews, Armenians, Greeks and others.

The relationship among the locals was friendly, as we have seen.

Management and workers in the SOP yard, 1938. In the small photo: F.J. Salmon, Commissioner for Lands and Surveys, and two senior administrators. In the website, one can zoom in, to see each worker.

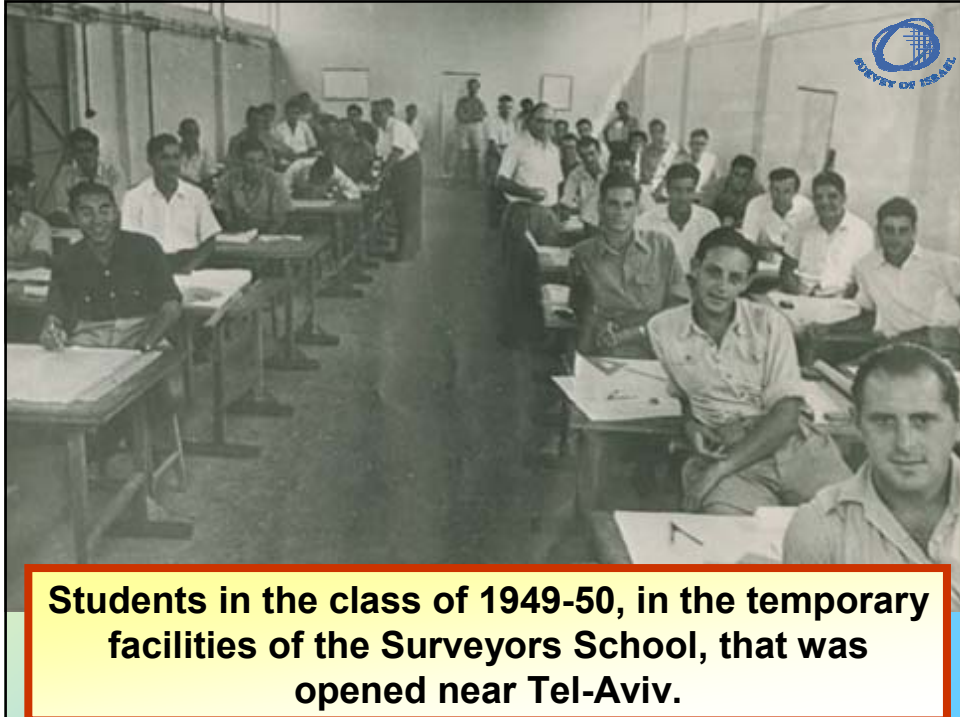
State of Israel

Since the establishment of the State of Israel the work force changed.

Released soldiers and new immigrants joined.

Many of them studied at the Surveyors High School that opened in Holon, near Tel-Aviv.

During the 1990's there was a large wave of immigration from the former Soviet Union from which the SOI hired many professionals.



Students in the class of 1949-50, in the temporary facilities of the Surveyors School, that was opened near Tel-Aviv.


The Work Force Section Includes:

**Research about the department's managers;
Tales about immigration; Stories about
studying at the Surveyors' High School...**




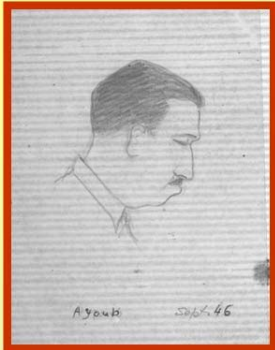
**Mr. Feldenkrais, who invented the Feldenkrais
Method for body health, worked at SOP.**

**SOP/SOI workers were Soccer players on the
national team.**


**Friedle Stern, caricature artist, worked at SOP/
SOI.**



Drawings of workers of SOP and SOI, by Arie Avni, a cartographer.



From the head of Cartography to the guard and tea-server.



The Departments

Each department is dealt with separately. The working methods, typical instruments, the workers, the products and the atmosphere.

The surveyors, as an example, spent most of the week in the field.

They started with measuring tapes, theodolites and levels. Today they use GPS with computers instead of field notebooks.

Maps and Mapping

This section includes maps from the ancient world up to the present. The Madaba map from the 6th century; The pilgrim's maps from the middle ages; Jacotin map from Napoleon's invasion of Palestine; The Palestine Exploration Fund maps; Military maps from WW1; British Mandate maps and Israeli maps.

Various subjects: Physical maps, touring maps, geological maps, land uses, settlements, Armistice Demarcation and Cease-Fire Line maps, etc.

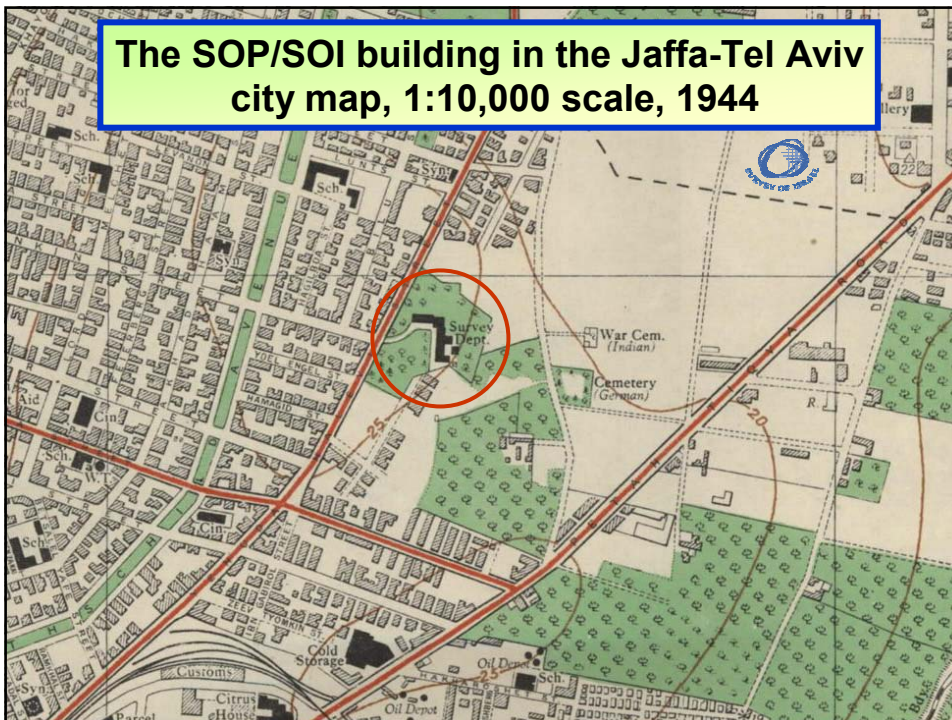


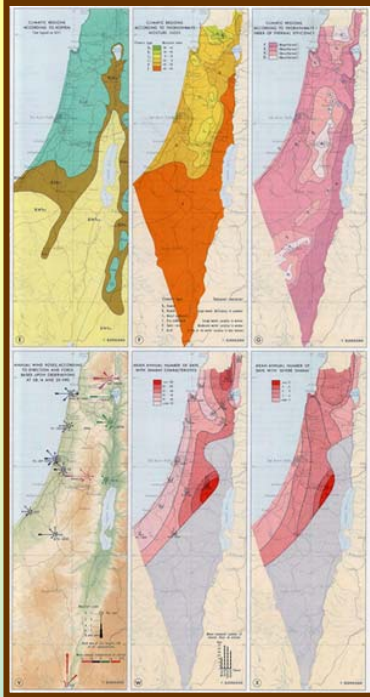
The Madaba mosaic map, from the 6th century, was found on the floor of an ancient church in Madaba, Jordan. The map shows the area of Palestine. In the center we can see the portrayal of Jerusalem.

A section of one of the six sheets of the Jacotin map that covers Palestine. The map was made after the Napoleon invasion of Palestine. It shows the gulf of Acre, the last place Napoleon reached.



The SOP/SOI building in the Jaffa-Tel Aviv city map, 1:10,000 scale, 1944



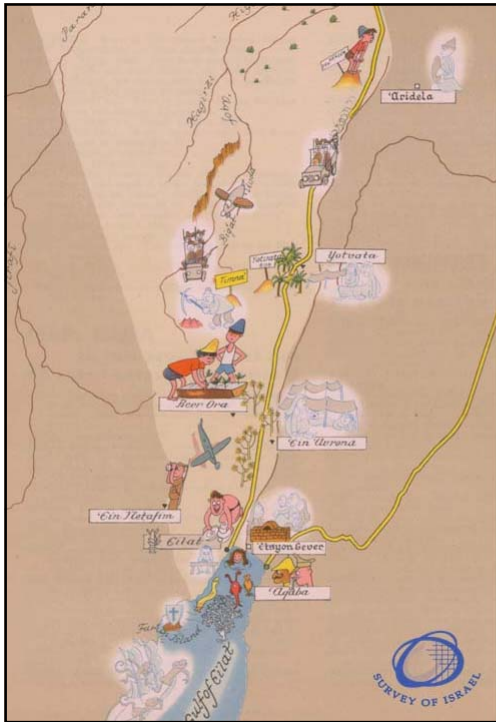


This section includes atlases such as those edited by Zeev Jabotinsky (The first atlas in Hebrew); Abraham-Jacob and Moshe Brawer (father and son); Israel Atlas (Five editions) and others.

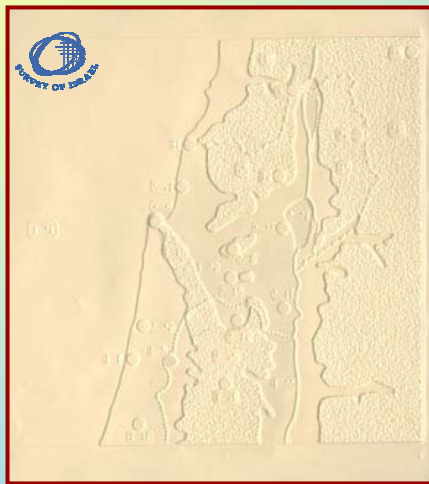
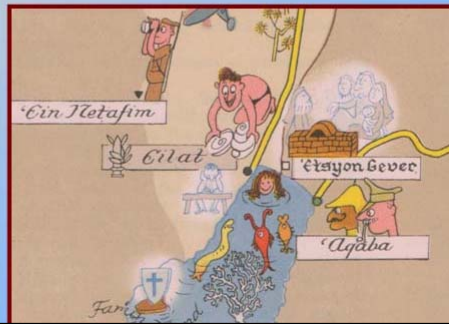
Left: Meteorologic maps of Israel. A sample from the Israel Atlas 2nd release, 1970.



Comparison between aerial photographs and maps. A sample from the New Israel Atlas, 2008.



A special atlas - "Israel in 14 Pictorial Maps", by Friedle Stern, a caricature artist who worked at SOP/ SOI. Part of Eilat map. 1950's.



Atlas of maps for the blind - edited for the Central Library for the Blind, Netanya, 1972.
Left: The opening page of the atlas. Right: a plastic 3D map of northern Israel.

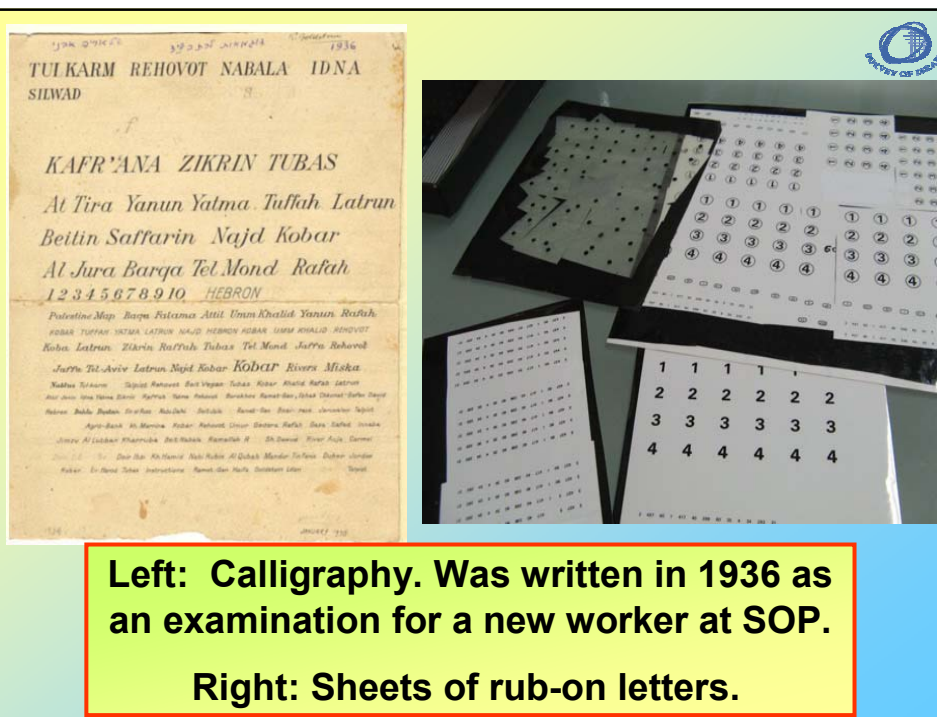


Instruments and Methods

This section deals with the Instruments and Methods used for daily work:

The technological advancement of the surveying equipment; the photogrammetric instruments; calculating machines and computers.

For example, calligraphy was replaced by rub-on letters, and has been replaced since then by font types on computers.





Working with computer fonts instead of calligraphy and sheets of rub-on letters. 2008.

Culture and Atmosphere



This section deals with changes of culture and atmosphere from time to time; differences among departments; relations between management and workers, etc.

During the British mandate period the relationship between management and workers was formal and rigid. Among the workers themselves, regardless of nationality, the relations were much more friendly.

A special atmosphere developed among the field surveyors who lived together, sometimes for the entire week.



SOI surveyors with Prime Minister, David Ben-Gurion at a surveying operation in the Negev (in the 1950's).

The SOI journal was published over a period of 12 years, from 1976 to 1988, consisted of many articles, stories and jokes that described cultural events, parties, field trips etc.

The journal was a very good source for understanding the general atmosphere in the SOI's departments.

Field trips, professional or for pleasure, were an important part of the good atmosphere among the workers.



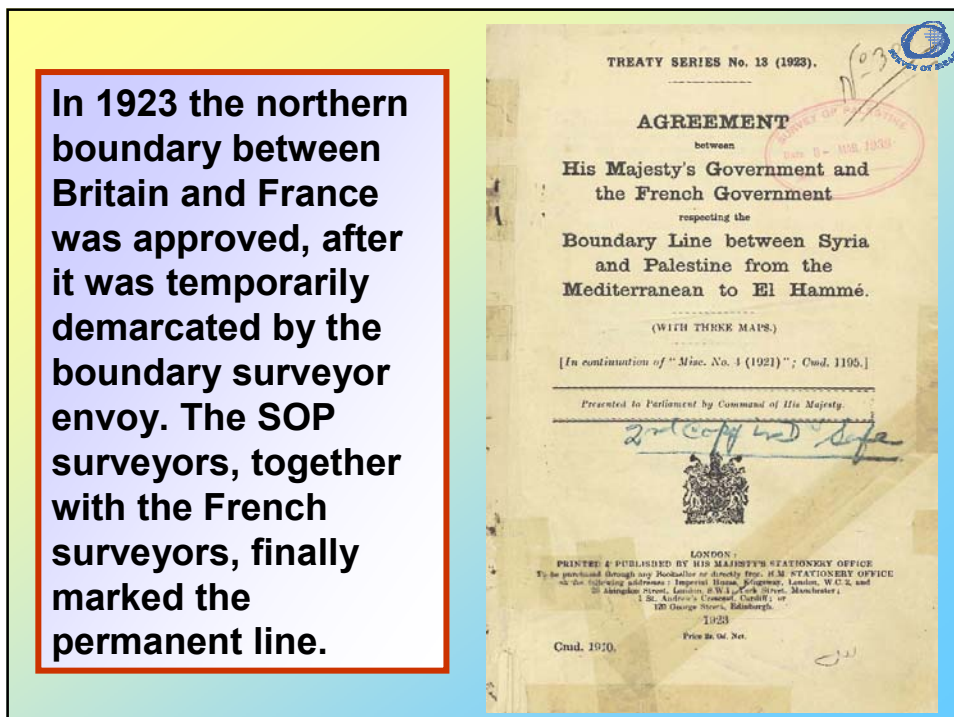
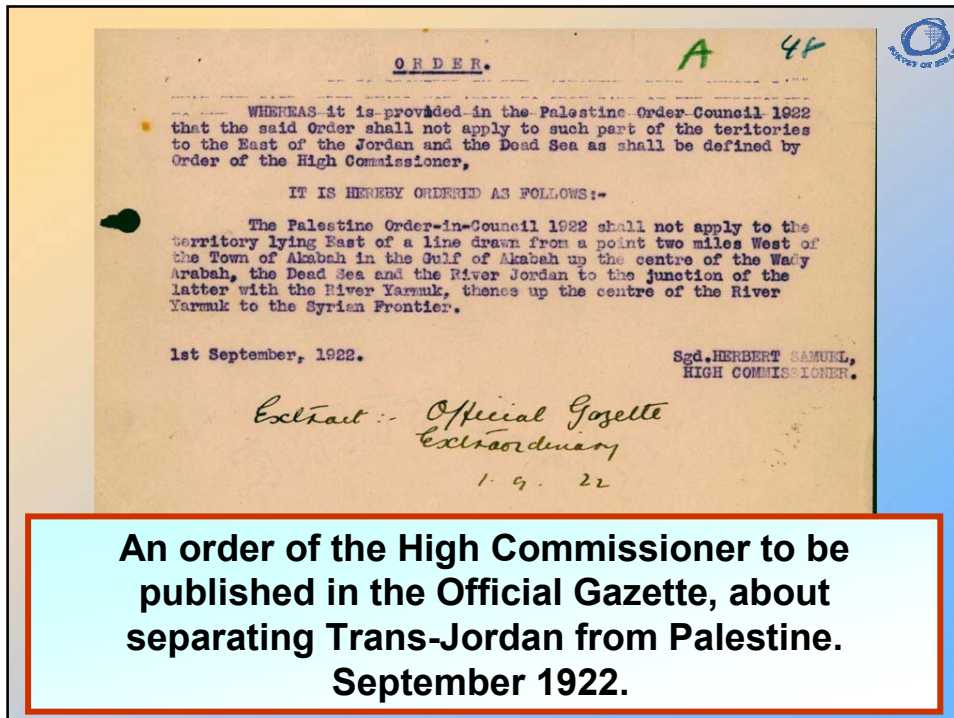
The photogrammetric workers check their mapping in Nizzana, during a field trip in the Negev Region, 2005



Boundaries, Demarcation and Survey

The State of Israel is "surrounded by many boundaries". Some of them were imposed by wars, and others – by peace treaties. In 1906 the border agreement between the Ottoman empire and the British empire was signed.

In 1922 "The Palestine Order in Council" was published regarding the separation of the area of Trans Jordan from Palestine, through the Arava Valley, the Dead Sea, and the Jordan and Yarmuk Rivers.



Between 1949 to 1967 the Armistice Demarcation Lines between Israel and the neighboring countries were maintained by the SOI surveyors. Some of the operations were bilateral, some one-sided.



An example of the bilateral surveying to correct the Armistice Demarcation line. Israelis and Jordanians with a plane table and a border point marker.

During the Egypt-Israel peace talks, the SOI workers took part in the border demarcation.



The photo shows the positioning of a border pillar along the Egypt-Israel border in 1982, after the peace treaty. On the left, the old pillar from 1906.





HERITAGE WEBSITE



**Thank you
for listening**