

Professional Practice Based on Education, Ethics and Standards

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SUMMARY

The professional practice of the surveying profession in Israel is still strongly influenced by the pre-independence period (1922-1948 under the British Mandate). Nothing of professional significance in surveying and mapping can be attributed to the period of the Ottoman Empire governing the area.

The British established a government Survey Office (to become Survey of Palestine), imported British personnel to fill all the executive and professional positions, decided that top priority be given to geodetic control in the form of triangulation and to training local personnel in the practical aspects of surveying.

In 1929 the British mandatory government put into effect the Survey Ordinance, which is still the law governing the surveying practice in Israel through regulations based on the law.

The Survey of Israel as a National Agency establishes reference models and standards for surveying and mapping products, which is a national task. It is the top professional authority and employs quite a number of experts in various branches of the profession. The survey is gradually reducing the number of employees, in accordance with the policy of the government, which means that more and more production work goes to the private sector.

It is felt that the direction of developments results in the need to consider delegating the responsibility for licensing to professional societies whose members are obliged to adhere to strict codes of ethics and standards.

This is not a development to be introduced tomorrow, but it is imperative to consider it as a policy.

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1. INTRODUCTION

The professional practice in Israel is still considerably influenced by the pre-independence (1922-1948) period, under the British mandate. Nothing of professional significance in surveying and mapping can be attributed to the period of the Ottoman Empire governing the area.

The arrival of the British in 1917, found the country in need of surveying and mapping services, without local Jewish or Arab professionals available.

The British established a government survey office (to become Survey of Palestine), imported British personnel to fill all the executive and professional positions and started training local personnel in the practical aspects of surveying.

The British decided, quite correctly, that top priority be given to geodetic control, in the form of triangulation, which would define a coordinate system for the country and to which all detailed surveys and mapping would be connected. Eventually, some 10 years later a cadastral system based on Torrens principles was introduced, which was not limited to fiscal aspects, but became a basis for registration of rights to land within defined parcel boundaries. In 1929 the British mandatory government put into effect the Survey Ordinance, which is still the law governing the surveying practice in Israel through regulations based on the law.

A similar situation is probably typical to many countries in the region and outside it, which were formerly governed by western European powers and have undergone experience similar to ours, not always, obviously, parallel in time.

2. THE NATIONAL MAPPING AGENCY

Survey of Israel, during almost 60 years of its existence, establishes reference models and standards for surveying and mapping products and is the top professional authority in the country, employing a number of experts in various branches of the profession. During the first 20 years of independence, the years of accelerated development and very few private surveyors available, the Survey was quite active in doing surveys and mapping, and employed over 500 people both in the field and in the office. Years have passed, priorities have changed, the national agency is gradually reducing the number of employees in accordance with the policy of the government and a growing volume of the production work goes to the private sector.

Today, one of the goals and challenges is to establish a spatial coordinate based cadastre in order to protect the general public, accelerate the registration process and reduce the costs involved in the registration of rights to land.

The Director General of the Survey of Israel is no less powerful than the British Director of Surveys 60 years ago. He is however responsible for adapting the profession to the trends prevailing in a democratic country: in legislation, in licensing, in continued professional development, in being open to criticism not only of the establishment, but of the professional community and of the public.

3. ETHICS

One of the phenomena that we all are concerned with, is the competition through bids for survey work. The danger is that submitting a low bid in order to get the contract may result in lowering the standard of the work provided to the client. There are ways to fight this phenomenon, but not all of them are foolproof.

The Treasury concept and the trend are that government survey work be carried out by the private sector, on the basis of competition.

One of the factors of the competition is the fee for the work to be performed. The Treasury does not approve work to be given out on basis of an approved price list for services to be performed. It is very difficult to make a smooth transition from the era of large government agencies capable of doing the work themselves, to the era of small government agencies farming the work out to the private sector, with the competition causing many problems.

In the past few years we have seen surveyors from the private sector acting as inspectors on behalf of the Survey of Israel in checking and inspecting land registration plans [1]. These surveyors were carefully chosen from the community of licensed surveyors on the basis of professional experience, instrumentation available and reputation. In order to avoid ethical problems, it is a fact that this is the preferable option, especially in view of the fact that there are no government surveyors available for these tasks.

Today, the professional ethics in Israel, in both the public and the private sectors of the surveying community, are based on the model developed by Allred for the FIG [2] and adopted for Israel by Adler. However ethics are a standard of behavior. Can they be enforced? Up to the present no license has been revoked for unethical behavior, nor has a surveyor been expelled from the Association.

Offences against the law can be enforced and punished much more easily than offences against the code of Ethics.

4. QUALIFICATION

We are already in the era of a technical university degree being a basic qualification for a surveyor license, followed by a period of supervised practice and a professional practice examination. On the one hand it places the surveyors at educational and professional level equal or exceeding that of other professional engineers. On the other hand, young persons entering the profession, have expectations of an appropriate reward for their personal investment and for their services.

What a long way from times, when the government granted licenses on the basis of experience without checks and balances, of examinations and supervised periods of practice.

5. THE FUTURE DEVELOPMENTS

The trend of reducing the size of the civil service is expected to continue. The National Surveying and Mapping agency will be limited to establishing and updating professional standards, directing research and development, in other words continuing being "the top professional authority in the country".

We anticipate that time will come to consider delegating the responsibility for licensing and supervision to a professional society, whose members have appropriate education, are committed to continued professional development and are obliged to adhere to strict codes of ethics and standards.

This will not happen tomorrow, but it is imperative to consider it as a policy.

REFERENCES

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BIOGRAPHICAL NOTES

Ron Adler received a Master of Science degree from Ohio State University in 1963 and a Doctor of Science degree from the Technion, Israel Institute of Technology in 1970. He is a registered professional engineer and licensed surveyor and has held a number of posts at the Center for Mapping – Survey of Israel, including 21 years as Director General. He has been a Visiting Professor at Ohio State University several times and an adjunct professor at a number of universities. He is the author of a textbook on Map Projections and some of 45 published articles.

Dr. Joseph Forrai was awarded an M.Sc.(1974) and D.Sc.(1980) degrees at Technical University of Budapest, Hungary. He is a licensed surveyor. Dr. Forrai was Lecturer and Senior Lecturer at TUBudapest, Tel Aviv University, Israel Institute of Technology (Technion) and Bar Ilan University (Tel Aviv) since 1976. Appointments at the Survey of Israel: Chief of Research Division (1987-1992); Head of Photogrammetry Department (1989-1993); Deputy Director General (1993-1994), Chief Scientist (1995-2003), Deputy Director General for cadastre (since 2003). Professional and research background (partial): crustal movement detection; photogrammetric data acquisition (national GIS topographic data base); permanent GPS station network; GPS support for geodynamics; improvement of national cadastral practice. Memberships of the Israeli Society of Photogrammetry and Remote

Sensing (president between 1995-2001); Association of Licensed Surveyors in Israel (responsible for FIG relations); Israeli Cartographic Society.

Haim Srebro received a B.Sc. degree from Technion, Israel Institute of Technology, in 1969 and an M.Sc. degree in 1988. He is the Director General of the Survey of Israel (since 2003). He is a licensed surveyor. Between 1971 and 2003 was an officer of the Israel Defense Forces, since 1986 colonel, commander of IDF Mapping Unit. Between 1979 – 1982 was responsible for the field demarcation of boundary line between Israel and Egypt. Since 1994 he has been the head of the Israeli-Jordanian Joint Team of Experts, responsible for the delimitation, demarcation and documentation of the land boundary and maritime boundary between these states. During 2000 he was responsible for the technical coordination with the UN with regard to the line of withdrawal from Lebanon.

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