

A CADASTRE FOR ADDIS ABABA

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The *Ecole Technique Supérieure des Municipalités (E.T.S.M.)* is a higher Ethiopian educational establishment. Its original characteristic is that it is directly affiliated with the municipal administration. The Ministry of Urban Development and Housing, which supervises all the municipalities of the country, and also the municipality of Addis Ababa, which disposes of an autonomous status, participates in the meetings of the school's Administrative Council. These privileged relations allow the school to integrate current as well as future professional dimensions in the school's program of instruction. The establishment of cadastral sketches for one of the city's districts illustrates the advantage of this type of institutional organization.

Addis Ababa, like all Ethiopian cities, is of recent origin : it is not yet equipped with modern cadastral institutions and materials. The lack of these tools is especially serious in a country where political orientations lead to an emphasis on regulating landed property. Proclamation 47 of the year 1975 (decreed less than a year after the revolution) stipulates that every citizen is entitled to possess a dwelling — only one — for his personal use. It is obviously quite difficult to apply this law without a precise cadastre, and the files which are awaiting approval are numerous.

The E.T.S.M., aware of this problem, has established a methodology which will provide for the progressive establishment of a municipal cadastre. This methodology has been applied to one quarter (Keftegna 2 Kebele 17) and a cadastral office has been set up by a group of higher students as a final pre-graduation project.

The principle on which this cadastre is based is simple. The city of Addis Ababa was described in maps (scale : 1 : 2000) in 1966 by SOFRATOP ; these maps have since been updated on the basis of aerial views. In the early hours of the revolution, district associations were created : the U.D.A.'s (Urban Dwellers' Associations), commonly known as Kebeles. These U.D.A.'s were responsible for putting proclamation 47/1975, which we have referred to, into effect (see *Cités Africaines*, no. 1,

for details). The U.D.A. undertook to number the cities' houses. The numbers, beginning with 1 in each district, were painted on each main entrance. Since then, several surveys and censuses have been carried out by the U.D.A.'s. These organizations' responsibilities extend from that of providing administrative documents to that of distributing basic commodities (sugar, flour, etc.) in each quarter. The rudimentary cadastre is based on a Kebele map (scale : 1:500) which was enlarged from a SOFRATOP map, and on which the U.D.A. house-numbers were indicated. Following this phase it was possible to count houses efficiently, and the censuses conducted by the U.D.A. could be connected with urban cartographic documents. The following phase consisted of delimiting on the terrain itself the parcels which belonged to private owners ; the rest belongs to the state through the U.D.A.'s, the National Housing Office or other governmental organizations. Once the boundaries were precisely traced they could be recorded ; then the exact surface area of the parcels, which are currently delimited for the most part by wooden stakes which support sheet-metal roofs, could be determined. This final step could then serve as the basis for the computerized cadastre which a good number of urban administrators find quite attractive. The computer, alas, is more powerful in fantasy than in reality. For the moment, computer files which can contain the U.D.A.'s statistics have been established. These statistics are, however, often incomplete or obsolete. Nonetheless, every house can be identified by three series of numbers :

- The number of the superior U.D.A. 2 digits
- The number of U.D.A. (or Kebele) 2 digits
- The number of the house 4 digits

These figures, which make it possible easily to locate a quarter (but not a house) are used as addresses in almost all the administrative documents. It is necessary to have a map on which every house can be identified in order to calculate statistics and to put urban-planning programs into effect.

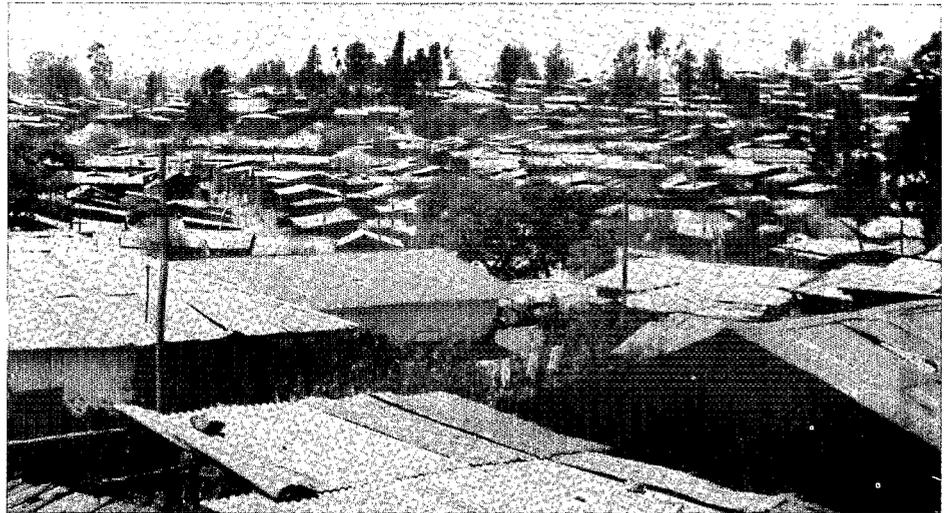
This necessity was quickly appreciated by the administrators of the Office of Urban Development of Addis Ababa. This organization is financed by the World Bank ; among its responsibilities is that of rehabilitating a poor district of the inner city : the Tekle Haymanot district. This project was developed by the organization and the E.T.S.M., in conjunction with that of developing cadastral sketches and socio-economic surveys of the area. The concerned zone, which includes approximately 8,500 of Addis Ababa's poorest houses (distributed between nine kebeles) thus became the testing ground for the cadastral sketch project. This project was worked out in practical courses (in July and September), which pro-

O.R.S.T.O.M. Fonds Documentaire

N° : 17.802 ed 1

Cote : B

Addis Ababa :
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de Tekle Haymanot



vided the occasion for students to study maps and learn how to use them most efficiently. The structure of the course was provided by a team of almost exclusively Ethiopian teachers (foreign teachers were spending the summer in their home countries).

The terrain to be studied was divided into sectors and then into blocks as the students' operations progressed. The surveys and observations were organized in successive waves. The maps, enlarged to a scale of 1:500, were not immediately available ; so rough enlargements were made with a projector. These rough maps were then updated in accordance with the students' field observations. The new houses were then studied by topographical teams. New maps, enlarged to a scale of 1:250 were provided for the numbering teams. The numbered blocks served as a guide for the groups which were responsible for socio-economic studies and for studies on the condition of the houses.

All of this information was then centralized and verified through cross-checking with the information provided by administrative organizations (U.D.A., Keftegna, Public Housing and Rental Administration, etc.).

Tangible Results

Today, the entire zone has been covered by these surveys. For each Kebele drawn to a 1:500 scale, a « cadastral sketch » has been realized. Five « theme cards » have been prepared for each Kebele [condition of the houses, property, equipment (water, electricity, toilets, kitchens, access and circulation), use of the house]. The characteristics of each house and the socio-economic data have been assembled. The totality of this

information, which concerns 8,500 houses and 9,200 families (some of the houses provide shelter for up to six families) have been recorded in the school's computer. This data bank should make life-size simulations possible, which in turn will be useful in the process of testing the various scenarios for rehabilitation which will be prepared later ; they will also facilitate the handling and updating of these cadastral sketches. This last point seems fundamental, since urban administration based on large-scale but short-lived operations is not practical. It is through daily work of a meticulous and exhaustive nature that urban development can be oriented harmoniously and respond adequately to communities' wishes and needs.

Through this project, the need for qualified personnel to manage a municipal cadastre became quite clear. Henceforth the references and the teaching staff necessary to train cadastre technicians (specialists) exist in the school. Discussions will soon be underway which will aim to determine the responsibilities and the working methods of these specialists. A training program will also be established outside of the normal academic circuits : it will allow for the recycling of the technicians who have already been designated.

It has become clear, through this study that a link between the educating facility and the employing facility can be advantageous. If educational institutions do not want to be diploma-distributing offices, they must look forward and backward from the viewpoint of their particular courses. The presence in their midst of high-level theoretician-specialists must be used to improve the professional sector. The quality of teaching is not measured in terms of the quantity of information learned by students, but in concrete acts which these students undertake in the field ■

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N°2 janvier — mars 1985
Prix FF 50 — zone CFA 2 500

B17.797 → B17.812 ed1