

LAND PATTERN

FRAME: Geometrical structure of a network, especially one analogous to a fabric of perpendicular threads.

"Grid of the roads which complements the main network to determine the street blocks, groups of street blocks." (Translated from Encyclopédie grand Larousse)

LAND RELATED: Concerning landed property, their use, their taxation (Translated from Dictionnaire encyclopédique universel. Connaissance et savoir; here relating to plot patterns and their characteristics.

The land pattern is the graphic interpretation of the geometry of the human occupation of the land. Its representation is an instrument of analysis and knowledge. It is at the same time a help tool for the design of urban and rural landscape.

The concept of land pattern was invented in 1962 per Gerald Hanning (1919-1980), Bertrand Warnier and Jean Coignet, then developed by Paul Checaglini and Annick Jaouen, at the IAURP (Town planning Institute of the Paris region). Based on the study of the land pattern, Gerald Hanning conceived an urban layout plan, which appears in the 1976 Master development plan of the Paris region (SDAURIF). The land pattern is used by many town planners, in particular those working for the IAURIF (former IAURP), but also for new towns (B Warnier in Cergy-Pontoise) or large private developments (J.-F. Revert).

The plot is the elementary unit of a territory occupied by sedentary people. The plot boundaries, altogether, entirely compartments the space. The study of those limits and how they fit with the features marked on the ground reveals a dominant geometry, in a close connection with the relief (lines of greater slope and contour lines, crests and thalwegs). Mainly agricultural in the origin, those limits lasted during the progressive urbanization, the

"The approach based on the study of the land pattern is inseparable (...) from an elementary courtesy with regard to inherited space and the men who inhabit it."

Gerald Hanning

permanence of this geometry ensuring the coherence of the landscape. Many cities fitted in a pattern which was determined by the agricultural use (1) and is still visible in the current limits (2).

Other layouts, more voluntary, appeared over centuries: colonization set in regular squarings (Roman centuriatio, Jefferson's survey in the USA), urban extensions that followed regulating layouts (Roman cities, medieval bastide towns, new towns of the 17th century), feudal land features (forest alleys, perspectives, royal roads). The latter, particularly present in the Île-de-France (Paris region), constitute a part of its cultural heritage. In general, these straight voluntary landmarks took account of the relief and were connected to the agricultural land pattern.

In the 19th, and especially in the 20th century, the technological developments and the doctrines of the modern movement introduced a break: the mechanical features (railways, motorways) are often at an angle with the original plots; the plot limits are also erased when agricultural or urban land is replotted; the large town planning schemes (new towns, housing complexes, industrial estates and business parks), are independent from the original limits, even often from the relief, and are organized according to solar orientations or their own perimeter (3 and 4).

The study and knowledge of the land pattern must be considered as a duty of memory and respect for the past. It makes it possible to apprehend better the fundamental relationship of the

site with the relief, to connect the various elements which make it up, by integrating its physical and human values. Thus, one can create a new space structure in coherence or continuity with the old one, or else in a deliberate break.

The land pattern helps to introduce a development which passes by the comprehension of the structure in place and "connects, in the same graphical representation, data on geomorphology, hydraulics, plants and buildings". It allows a coherence between elements of information collected at various scales.

The land pattern was used as a concept to explain the organization of already developed sites (7th and 15th arrondissements of Paris, Ruffains neighbourhood of Romainville). It was also used as help tool for the design of development projects on sites that are either already very urban (suburban town centres), intermediary (Vitry, Mareil-Marly, Fourqueux, Saclay) or little fragmented at the beginning (Cergy, Agadir, Cairo).

The study of the Vitry plateau enables us to distinguish the phases in highlighting a land pattern.

A. The topographic map (1 / 25 000) makes it possible to locate the study perimeter of the operation, to note the juxtaposition of the developments which make it up and the land use.

B. These elements make it possible to represent the land pattern of the overall site. The method is based on cross locating the angles between parcels of land and surface objects, and

highlighting the alignments which they form.

C. Reading the parcel plan (1 in 10 000) confirms here clearly a geometrical structure of the landscape: long parcels following the slope lines and crests.

D. Air photography confirms the existence of this geometry and shows that features marked on the parcel layout (buildings, fences, planned vegetation, etc.) fit into this geometry and take part in the coherence of the "lines of force" of the landscape.

E. The local land pattern can thus be represented at a more detailed scale.

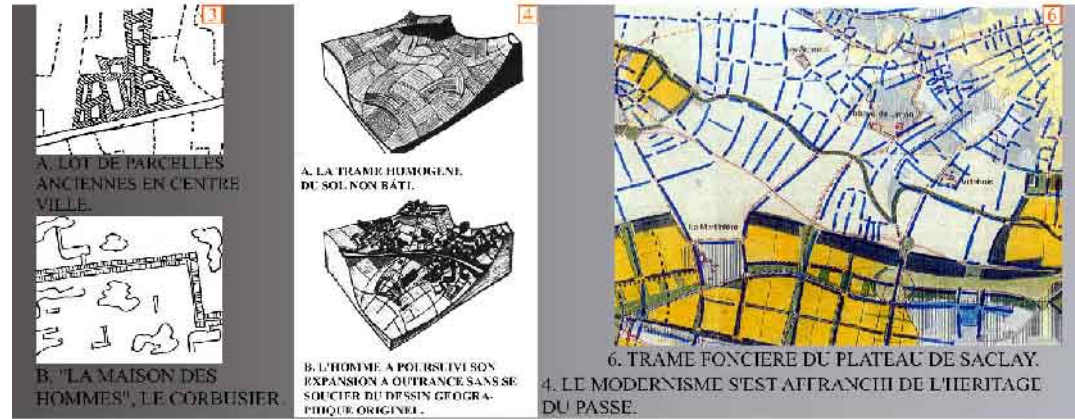
The example of the study carried out on the Saclay plateau (6) enables us to note that the land pattern can guide the integration of future developments in an organization that respects the site. It avoids the perverse effects of developments conceived like islands, determined only by their perimeter.

It is thus recommended to include studying the land pattern, and learning how to take it into account, in the training of engineers, architects, landscape designers, town planners or geographers, and all building owners should prescribe a study of land pattern in any project (urbanization, infrastructure, reforestation, etc.) which transforms the landscape.



1. COMMENT LES VILLES NAQUIRENT DANS LES CHAMPS.

1. PARCELLAIRE ANCIEN DE PARIS. TRAME PRIMITIVE.
2. PARIS. PLAN DE VOIRIE. 2000.



A. LOT DE PARCELLES ANCIENNES EN CENTRE VILLE.

A. LA TRAME HOMOGENE DU SOL NON BÂTI.

B. "LA MAISON DES HOMMES", LE CORBUSIER

B. L'HOMME A POURSUIVI SON EXPANSION A OUIRANCE SANS SE SOUCIER DU DRESSIN GEOGRAPHIQUE ORIGINAL.

6. TRAME FONCIERE DU PLATEAU DE SACLAY.
4. LE MODERNISME S'EST AFFRANCHI DE L'HERITAGE DU PASSE.



5. ETUDE DU PLATEAU DE VITRY :

A. PLAN CADASTRAL (1/25000)

B. TRAME FONCIERE GENERALE (1/25000)

C. PLAN PARCELLAIRE (1:10000)

D. PHOTO AERIENNE DU SITE

E. TRAME FONCIERE LOCALE

Cf. CADASTRE, FENCE, SCALE, STREET BLOCK, ALLOTMENT, PARCEL LAYOUT, PERSPECTIVE, OVERALL PLAN, LANDSCAPE PLAN, STREET, REGULATING FEATURES.