Volcanic Biome Abstract – Diploma 2022

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Landscapes -urban, industrial, natural, agricultural- are at the centre of the main challenges towards a more sustainable future. During the last century, the relationship between the modern world and landscapes has known several drastic changes. Fast-growing cities, globalisation and technological changes have been important trends influencing our cultural landscapes and continue to do. The inhabited landscape of Clermont-Ferrand has been and still is subject to these influences.

The research question, "how ecological and aesthetic characters may be related in the requalification of Clermont-Ferrand's volcanic landscape?" expresses this will of developing a proposal incorporating a variety of layers to refound a cultural landscape and identity of Clermont-Ferrand's territory.

Clermont-Ferrand is settled within a particular volcanic setting. Volcanism in metropolitan France is a unique phenomenon and feature located in central France, in the Auvergne region. The Chaîne des Puys – UNESCO site since 2018 – is seen as a valuable green resource and territorial identity for the local population.

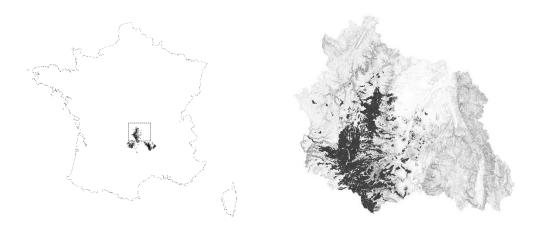


Figure.1 Volcanism's location in France

Additionally, the metropolis lays at the edges of a major rift line. A drop in the landscape marking the limit between the volcanic plateau and the Limagne plain. Indeed, the Limagne is an extensive agriculture plain with a rich soil. The area used to enjoy from a variety of humid zones, wetlands and wild rivers. Those rivers were meandering in the landscape towards the main river, the Allier.

However, through the past decades, the territory metamorphosed under the impulse of various processes. Clermont-Ferrand have been hosting one of the most influential tire's company in the world, Michelin. The development of Michelin has led Clermont-Ferrand and its landscape to adapt. The urban planning scheme of the metropolis has been influenced to the Michelin's production and expansion following the industrialisation lobbying on land use. Which has therefore led to a disconnected landscape. The volcanic plateau, the city and the plain, used to be connected through water, animal movements, agriculture practises and plants. Those links were closely associated to the volcanic ground and valuable soil. Nowadays, these blue and green connections have been faded away and largely lost.

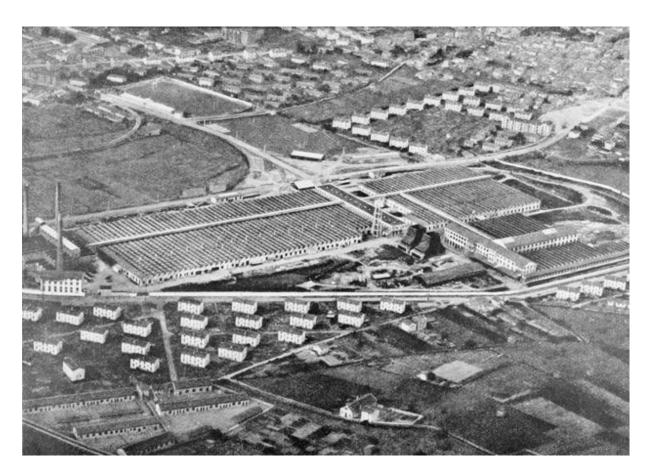


Figure.2 Michelin's production site of Cataroux and company towns

There is therefore an urgency to protect, recover and enhance the territorial landscape and identity of Clermont-Ferrand and the Chaîne des Puys.

The diploma project "Volcanic Biome" is exploring elements related to cultural landscape, ground memory, history and ecological values. Through those notions, a park system concept has been designed. Indeed, the volcanic biome's proposal highlights both the history of the territory as well as

its geological features and therefore the forgotten geography of the space. The designed park system is based on Forman's vision of a stepping stone park system and the ecological landscape theory.

The designed park system of Clermont-Ferrand is following the edge landscapes. The edge landscapes in the inhabited landscape of Clermont-Ferrand are seen as geomorphological, topographical and ecological boundaries within the ecocline. Those edges are based on lava's flows, on rivers' edges as well as on highway banks crossing the landscape and favouring a better connection on the territory. Therefore, the park system incorporates both elements from the past and contemporary time.

The enhancement and use of the edges are framed through the implementation of a vegetated framework and planting strategy. The planting is based on topography and ground composition. From a staggered way planting as to remind the agriculture past of the slopes to a dense and natural planting as to create a visual landmark demarcating the lava flows.

The edges have various functions and may react differently depending on their location. From a purely ecological purposes to the association of viewpoints and hiking path, the edges may offer places for the blooming of history, insects and the volcanic biome.

The establishment of this new park system concept on Clermont-Ferrand's territory may offer an opportunity for the city and its surrounding landscape to reconnect while preserving and enhancing the natural beauty and ecological values of the space.

The preservation of the voids, improvement of the landscape's legibility and the enhancement of the topographic features allows a discontinuous park system through the dense urban core of Clermont, while reconnecting the Chaîne des Puys to the Allier.

Finally, the project is establishing the future cultural identity of Clermont-Ferrand and the Chaîne des Puys through the design of a large-scale stepping stone park system based on soil memory. Thereby incorporating past and contemporary elements. A project enhancing the beauty, the ecological and identity aspects of the territory. Elements designed with various scales -from regional to local- and through the interactions of various layers.