UNMAKING SCREENS. A GENEALOGY OF THE MINERAL VISION*

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During three decades, from 1939 to 1973, the Spanish National Institute of Colonization repurposed enormous extensions of territory linked to the engineering of large-scale water infrastructures. As a consequence of this agrarian reform and land settlement program of Franco's dictatorship, agriculture in Spain started to be industrialized, thanks to the outcomes of chemical industries and the disposal of cheap human workforce. Significantly, this technification, exploitation and population of land coincided with the first series of aerial orthophotographic pictures mapping the whole Spanish territory. As a result, soil became an engineered surface to hold and transform solar light energy into cereals, fruits and vegetables, while at the same time the reflected sunlight became gradually a source of information stored in photographic plates carried on by aircrafts owned by military and cartographic institutes.

This mediated transformation of the ground belongs to the broader observation of the earth through media that has occurred along with the expansion of the military and extractive industries of the 19 and 20th centuries, in hand with "the rise of an imperial world view" (Kaplan 2007). "In the colonial imagination", in Eyal Weizman words, "the planet is perceived as a design project" (Prochnik 2015), a project where the infosphere controls the geosphere (Virilio, cited in Bishop 2015), with encodings such as "the gridding of time and space, the proliferation of registers, filing and listing systems, the making and remaking of categories, the identification of populations, and the invention of logistics" (Lury, Parisi, Terranova 2012). A transformation led by operations such as the flattening of land, the layout of transport infrastructures, or the spread of networks (such as cables or irrigation canals), which have inscribed physically in the earth their own infrastructural needs and their lobbying interests, expressing their "power to transform, redefine and hybridize nations, territories and cultures in a most material way", as Lisa Parks has put it in relation to satellital infrastructure (Parks 2009).

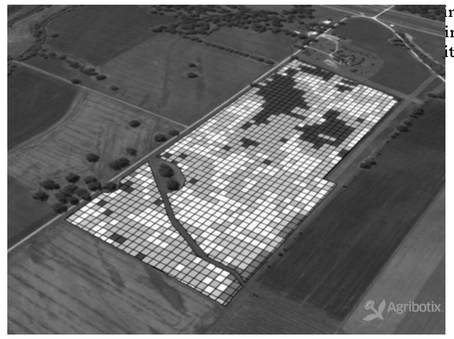
From the satellite, where the scale of the transformations of the Inner Colonization is visible, images of the agricultural plans show how a portion of a planet was brought materially to behave topologically, displaying how vast territories were turned into a productive regime thanks to the connection to huge water reservoirs. These are pictures that look in fact like a thermodynamic diagram, displaying the inner workings of an abstract machine. Coincidentally, during the first decades of the 20th century, and after the chemical industries had ended up synthetizing nitrogen to fuel the productivity of yields, a thermodynamic stance started to be applied to the Biosphere, the uppermost living layer of the planet. The works by the Russian mineralogist Vladimir Vernadsky or the American mathematician Alfred Lotka introduced the biochemistry of the soil itself as an additional agency, a “living film where the radiant energy of the Sun is transformed into free terrestrial, chemical energy” (Vernadsky).

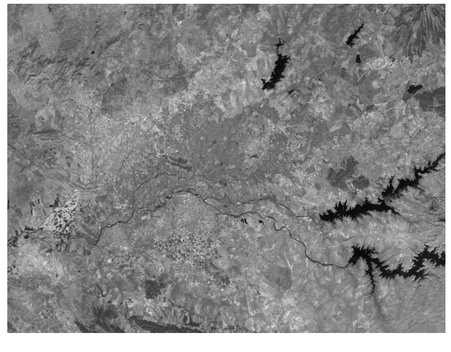
This brings up Jussi Parikka's argument in his book A Geology of Media: it is not only that the earth as a resource has been registered through media for a long time; the registering tools themselves have been provided and enabled by the earth, in the form of essential chemicals, minerals and microorganisms mainly. The relation between abstract encodings and material portions of the earth is a two-way one; a closed loop, a "double-bind" (Parikka 2015), characterizes the interweaving between the planet and the technical mediations that allow to grasp it as a readable entity. A sphere of "medianatures" emerges, in his words, as the entangled set of practices where media and nature appear as "co-constituting spheres, where the ties are intensively connected in material nonhuman realities as much as in relations of power, economy, and work", making it impossible to distinguish such spheres separately.
This dual development of aerially-aided soil operations has evolved to become a multi-scale practice today, in a much more dense and intensive way, in fact. Under the umbrella term of Precision Farming, devices on tractors are programmed to control the dispersion of water and chemicals based upon information gained from satellite or aircraft based sensors that measure the wavelengths of radiant energy absorbed and reflected from the land surface. Soil moisture, surface temperature, photosynthetic activity, and weed or pest infestations are addressable with a resolution of a square meter, almost exactly the size of the irrigation system actuator.

Writing about the practices and methods used to depict with and about light phenomena, Sean Cubitt recalls an analogy posed by Descartes, where light rays are compared to the precision of the stick used by those born blind, that allows others to almost say "they see with their hands" (Cubitt 2014). In this case, a space of mechanical movements operated by agricultural machinery, clearing and levelling operations, irrigation, the application of precise rates of chemicals by turning on and off electro valves, all these techniques are the sticks and hands of this particular way of producing the visible.

This double performance of soil, commodifying the earth's resources and emitting visual information, makes it tempting to extend the notion of a -digital- screen to encompass an envelope such as the uppermost crust of the planet. These notes are therefore an attempt to genealogically address the screen in medianatural terms, a genealogy sketched also as an "unmaking". In its broadest sense, it is a methodology that aims to explicitly introduce the processes of making media into the fields of forces and tensions characteristic of the non-binary worlds of medianatures. In this sense, unmaking entails the question of how the very notion of making is destabilized once it is put against a background of inherently interconnected agencies and scales: how it does not make any sense to think that we -alone- are able to make anything, but replicate, refine, rescale processes that are producing us together with our expanded affordances, already.

What this specific unmaking in practical terms is about remains an open question. The interweaving of users and systems, the impossibility of an on-off switch in the context of medianatures, the continuum between signals and data, the blurred thresholds between function and dysfunction, operation and waste or the erosion of scale differences are some of the faded binary relations to ng methodology. imations, based on ital.





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*Images taken from the Fototeca digital of the National Geographic Institute of Spain and the Agribotix website.