

OCTOBER 26TH D – LA REPUBBLICA DELLE DONNE / IN SEARCH OF GREEN GOLD

In French Guiana, in lands laid waste by gold-mining, a company has set itself to the task of regenerating the soil and recreating the forest. The results? Promising enough to have won over the Kering group

by Chiara Tronville - Photography by Alessandro Gandolfi for D

Unlike underground mines, these are open-pit. Many are illegal: these are the most devastating

“DO YOU SEE THAT BEND? Send your family a goodbye message, because from there on there will be no mobile service. Tell them that they will hear from you in a couple days.” The good news that there will not be any roaming charges now seems irrelevant: a half an hour’s drive from Cayenne the signal begins to degrade, fading completely as soon as we make our way into the forest. On the map, we are in a French overseas territory, on the far shore of the Atlantic Ocean, along South America’s north-eastern coast. French Guiana lies between Suriname and Brazil, the source of an unstemmable flow of immigrants. The climate is decidedly tropical, with sweat drops beading up even when standing still, but the colour of the ocean is anything but postcard-perfect (due to the mouths of countless rivers, not least of which is the Amazonian River, to the south). Most land is covered in forest, making up 1% of the Amazon. The soil is red and rich in gold.

It is a hot topic: in recent months, the sole subject of conversation has been the intensive, progressive deforestation to which the Amazon falling victim, to make way for intensive agriculture and ranching. Considerable criticism and attacks have been levelled against Brazilian President Bolsonaro and the lobbies supporting him. In French Guiana, the vegetation is still partly preserved, but given the 4% annual population growth and the progressive exploitation of the soil, an effective plan of action is needed. A study by the WWF has found that 41% of deforestation driven by gold-mining occurred in the various regions of Guiana from 2001 to 2013. The area affected is the equivalent of 86,000 football fields. Forget underground tunnels: here the mines are open-pit. Many mines are operated under regular four-year concessions. Many more are illegal: no one knows where they are, as the vegetation is lush and the trees climb 40 metres into the air. To get a real picture of the “bald” areas where the original forest has been cut down, one must turn to a satellite or at least survey the terrain by helicopter. However, we are travelling by pick-up, rattling from one pothole to another, with the beginnings of car-sickness coming on. There is a famous area, known as the “*Montagne d’Or*” (“Gold Mountain,” disputed between Russian and Canadian multinationals), the concession for which has been revoked due to incompatibility with environmental protection. All the mines result in a similar degree of devastation of the original landscape, by cutting down trees and digging into and overturning the earth until it has nothing left to give. “Tree roots grow horizontally in approximately 50 cm of soil, which is why the forest is particularly fragile,” is the explanation we get. Yet the difference between the legal and illegal operations is that the latter, to separate the gold from the mud, often still use mercury, which has been banned: in addition to poisoning people, it gets into the soil and contaminates the aquifers, threatening whole ecosystems. Of course, when the work is done, those who have kept out of the government’s eye escape with their booty in tow, but without fixing the damage. By contrast, any mining operator working above-board is required by law to cover at least 30% of the land with forest (i.e. to replant 30 trees for every 100 cut down).

The problem is that this land, made so arid by human intervention, is no longer capable of nourishing and supporting seedlings. Dipping a hand into the soil is enough to see that the conditions for recreating an environment similar to the original no longer exist. Elodie Brunstein has made the fight against the deterioration of this soil her life’s cause. After studying agriculture, she came to French Guiana for an internship and never left. Now she heads up Solicaz, a company at the forefront of soil regeneration techniques. Based on an analysis of each soil’s physical and chemical characteristics, her team of scientists and ecologists work on regenerating fertility through leguminous plants that fix nitrogen in the soil and naturally restore the proper chemistry needed to start a forest. Working with bacteria, fungi and the roots

and nodules of these plants, life can be breathed back into the land in six years, as planned by nature. Fast-growing plants take root and shoot up four metres a year, drawing insects and birds. In the end, the wind and animals bring back the seeds of the original plants, which then find optimal conditions for growing back. Facile enthusiasm and scepticism aside, only time will tell whether Solicaz's method is effective: we shall see, decades from now, whether biodiversity has been restored. In the meantime, there are those who have invested in and hold great expectations for this full reforestation project.

One of them is Kering. The French luxury group (owner of a number of brands, including Gucci and Saint Laurent) recently announced its commitment to guaranteeing emission neutrality. In addition, it is making up for the impact of its products on the environment by preserving forests and biodiversity, while also supporting local communities. It is important to remember that forests foster the removal of carbon dioxide from the atmosphere, thereby contributing to mitigating climate change. Yet planning to replant forests in lands impoverished by gold-mining goes far beyond concern with the environment. It means responsible procurement and, where there is a direct relationship with the mine, having oversight over and responsibility for the entire supply chain. This is why the French giant, under the leadership of head of sustainability and institutional affairs Marie-Claire Daveu, has decided to work with Solicaz on a pilot project on 18 hectares of land worked by the mining company Sial, a small firm that each year supplies 55 to 70 kg of responsible gold (i.e., produced by an ethical, transparent supply chain). A pittance, considering that in 2018 alone the group used around one and a half tonnes of gold (for Boucheron and Pomellato jewellery, to gild Gucci buckles...).

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This Daveu's first look at the fruits of Solicaz's labour up close and personal. “We hard at work on the raw material issue: on the one hand, we want to ensure that it is always mined or obtained responsibly, while on the other we would also like to take responsibility for our negative impact on the environment, even where the law does not expressly require us to do so.”

The group, which by 2025 will use responsible gold only, and which is showing interest in the future use of recycled gold, undertook this project with the intention of sharing its methods and positive results with all those involved in mining. “It is important to take a scientific approach: nature is capable of regenerating itself on its own, but it takes too long, and having found an effective, measurable way of reconstructing the ecosystem is something that we want to support and share.” Daveu is enthusiastic when Elodie Burstein shows her the work that Solicaz began three years ago on the land worked by the mine operated by business owner Joziani Brandelero. The results are surprising: some plants are already over ten metres tall. Naturally, the height gap with the original forest due to the excavations is obvious, but considering that this land was little more than a heap of mud and cut-down tree trunks there is good cause for optimism. We spend the night at the Sial mine base camp, where a dozen men work the mine, without the aid of chemical preparations or technology. The most personable is an engineer from Toulouse, who explains the mine's “rhythms”: three months of non-stop labour, followed by one of vacation, so that he and the others can go home. Isolation is the hardest part of this job, although entrepreneur Thierry Favaretto has built a camp offering every comfort. The night-time stroll is poetic, and we sleep in hammocks, since there are just two beds. Spiders and mosquitoes are the chief worry, although there are rumours of monthly incursions into other mines by armed Brazilian bandits. Near the camp stands the nursery greenhouse, with the baby plants to be planted: 1,670 per hectare. Their most valuable trait escapes the eye: the roots of these plants have super-powers. William Montaigne, an ecologist with the face of a teenager, introduces them in these terms: “This little greenhouse in the middle of the forest, for our children and for the world we want to rebuilt, is worth more than all the gold in that mine.”