

living on the edge: in search of artistic inspiration

The region in central France known as Berry includes the departments of Indre and Cher, and parts of Creuse. During the middle ages, monks created thousands of interconnected ponds that remain important sources for pisciculture and biodiversity. The transformation of wetlands into habitable land enabled invaluable farmland to arise from muddy swamps. West of Chateauroux lies Parc naturel régional de la Brenne (since 1982), a national park encapsulating around 50 communes that are home to 33,000 inhabitants as well as 2300 animal species, including 260 different birds, nearly 100 butterfly species, 50 dragonfly species, 22 bat species, scores of orchids, and all sorts of wildlife such as wild cats and snakes.

For GNAF France 2021, Cranberry (founded by Saint-Lactencin artists Olivier Huët and Margrit Neuendorf, aka 'les Fujak') organized 12 workshops over as many days in 8 communes, granting 8 European artists' unique access to this region's wooded areas, abundant ponds and agricultural fields, giving rise to the residency's overall theme of the 'edge'. And indeed, the 'edge effect', which is one of Permaculture's twelve design principles, reflects the way the ecotone, or border between adjacent ecosystems, engenders greater biodiversity given its greater productivity owing to greater resource allocation, microclimates and increased sunlight.

As I have been researching biodiversity for nearly two decades, I was particularly pleased to discover novel species such as wild cats and so many types of dragonflies inhabiting the areas we visited. I found it enchanting that several locations were 'living paintings', as if landscape architects had designed them to resemble familiar artworks. It's difficult to know which came first, the Corot-like tree-lined pond known as *étang Baron* or the early 19th century naturalist paintings created in Barbizon, some 200 km northeast. Another scientific field that fascinates me is geobotany, which I had assumed explored the relationship between local soils and the plants most likely to take root. Our two-week residency in Indre showed me another side of this relationship. I was fascinated to learn about 'buttons', small groves of trees that had taken root atop red sandstone deposited during the ice age; whereas grains such as wheat, rye and barley sprout atop limestone tables. This only further convinced me of the significance of rocks and clay, whose mineral compositions capably support plant and animal life alike.

My favorite discovery during GNAF France 2021, however, was bocage. This 6000-year old strategy of surrounding fields and meadows with hedges and tree lines (typically *Quercus robur*) effectively traps the water cycle within the enclosure, enabling evapotranspiration to sink back into the soil, rather than evaporating into the clouds. Since 1960, Europe has lost 40-80% of its bocage to industrial farming, which unlike bocage requires irrigation, fertilizers and pesticides. In addition to breaking the wind, hedges intercept and absorb 78% of the rainfall, thus preventing flooding, which reduces soil erosion. During dry summer months, bocage prevents humidity from dissipating and lends fields constant access to moist air despite the absence of rain. Agricultural fields generate massive amounts of moisture (5-6 mm per day), which bocage's carbon-rich soil captures, enabling bocage to produce twice the amount of evapotranspiration as ordinary forests. Moreover, fields lacking bocage have 4.5% lower evapotranspiration rates, which adds up during dry years. Not only do predatory arthropods inhabiting hedgerows reduce crop-damaging pests, but bocage tends to reduce nonpoint source pollution that results from excess pesticides and toxic chemicals leaching into streams and rivers.

This system, which parallels the 'hedgerow' system familiar to southern England's countryside, is the most efficient farming system that I have ever witnessed. No wonder the permaculture movement recommends integrating edible hedges and hedgerows. Given bocage's myriad ecological benefits, it's fortunate that the European Union recently decided to encourage farmers to install bocage wherever possible. The recent interest in agroforestry and biodiversity has inspired farmers to revisit this beneficial method, which to my lights is not really agroforestry so long as agriculture and forest remain separated, rather than integrated. Nonetheless, this genius technique reduces the necessity of irrigation and offers myriad applications for dry climes. For more information regarding bocage, I highly recommend this informative article: <https://transformativeadventures.org/2018/08/28/designing-and-establishing-edible-hedges-hedgerows-and-windbreaks/>

Sue Spaid, curator and philosopher



Tzvetelina Maximova, *Mask of Nature*

To characterise the 'edge effect', **Marie-Louise van der Akker** wove floating gardens out of leaves and flowers, while **Bob Budd** exhibited photos of the sky reflecting in plant-filled ponds. **Moritz Dornauf** filmed each resident articulating 'the edge' in his/her own words, whereas **les Fujak** drew our attention to the riparian zone, the interface between land and waterways that provides wildlife habitat and boosts biodiversity. **Pierre Guilloteau** used his arms and hands to draw attention to nature's bounty and generosity, while **Tzvetelina Maximova** demonstrated nature's role as a protective shield. Meanwhile, **Katharina Sommer's** video depicts tree nymphs darting about a tree, engaged in intimate moments of deep reflection.