The machinist landscape


Document Version:
Early version, also known as pre-print

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Download date:09. Dec. 2018
The Machinist Landscape works with the conditions of the Fresh Kills Park and the engineered layers of contemporary technology and traditional techniques (PV). This landscape of energy works in two layers.

UNDER-STOREY: Coppicing consists of growing young timber to a full crop height is facilitated every 3-5 years by cutting down all ground level, causing more nutrients to move through the root system. The higher the crop lift, the more nutrients are moved to the upper canopy stimulating the shoots to grow, which in turn can be harvested. The coppicing process maintains young growth, with the shallow harvesting ensuring that differing maturities of plants are always maintained.

The Machinist Landscape coppice provides ecosystem services of high biodiversity, high productivity, high carbon sequestration, and resilience to fire. The Coppice is a fast-growing biomass that is ten times more productive than growing rapeseed. Carbon sequestration is also high in coppiced woodlands. Not only does the production of biomass support large elements of carbon, but the coppicing process has been found to also support single elements of carbon directly and the task when the cropped tree is harvested, the roots themselves die back, leaving carbon in the ground adding back carbon directly to the soil.

This SRC (Sources every 3 years) will develop over 10 tonnes dry weight of biomass per hectare per year. This equates to 10phants per hectare annually – approximately 2,000 trees across 25 hectares of coppice.

UPPER-STOREY: During medieval times, coppice was set out following a 10m (30ft) square grid of fully grown oaks, known as standards. The purpose of the upper canopy was to provide a persistent Fagus cover in the under-storey of coppice. This canopy created optimum growing conditions for the coppice, and also was a productive element in its own right. The oak canopy was created using a state-of-the-art technology (PV) canopy that is even more productive. The canopy was also constructed to replicate the design scale and diffuse light canopy of the oak standards. Each TdPh (grid canopy) was a productive element in its own right, producing around £8,000 per annum, and across the site approximately £3,000,000 per annum.