

## Biofabrique Vienna: Wiener Farben / Vienna Colours

### A project by the Vienna Business Agency

The current edition of Biofabrique Vienna explores the development of dyes from unavoidable organic waste generated by the restaurant and food processing industries—such as the outer leaves of red cabbage and avocado pits – as well as from invasive plant species, particularly Japanese knotweed. The goal is to create a local alternative to environmentally harmful synthetic dyes, which account for a significant, often overlooked part of the ecological footprint in the textile and fashion industries. The dyes are derived exclusively from waste unsuitable for human consumption. This avoids competition with the food system and allows agricultural land to be used more efficiently.

The research project focuses on the production of colour pigments and their industrial application on a larger scale. At the same time, the crucial role of mordants is being investigated; these stabilise the bond between dye and fibre, thereby ensuring wash, light, and rub fastness.

The scientific foundation is provided by three universities: the University of Applied Arts Vienna (Department of Textiles – Free, Applied, and Experimental Artistic Design), the University of Art and Design Linz (Institute for Fashion & Technology), and the Vienna University of Technology (Phytochemistry and Biochemistry of Natural Substances).

A key industry partner is Färberei Fritsch: With proven expertise in natural dyeing, it combines artisanal know-how with industrial process reliability, tests formulas and dyeing systems, and translates research findings into reliable applications. The collaboration is significantly supported by designer Antonia Maedel (Rudolf Vienna).

Resource partners such as Mochi GmbH, MA 45 – Wiener Gewässer, ETG Erzeugerorganisation Tiefkühlgemüse, and Hafner Agrar GmbH assist with the collection, preparation, and evaluation of resources for the initial experiments.

The collaboratively achieved result is an authentic, site-specific color palette that could only have emerged in Vienna, a counterpoint to generic design language and a plea for an approach to design that thinks from the city and feeds back into it.