

The beginning of helophytes applications in bioengineering in Europe

**Rudower Fliess**

**1983**

**Position:** 13°29' 1.042" W, 52°24' 27.011" S

The Rudower Fliess is located in the southern region of Berlin. The small brook runs from the demarcation line, "The Berlin Wall," of the former DDR to Geflügelsteig. The straight-lined hypertrophic ditch is constructed from trapezoidal shaped concrete blocks. The overall length is approx. 650 meters and carries a moderate flow up to 0.3 m/s, rate approx. 100 L/min.

**Objectives**

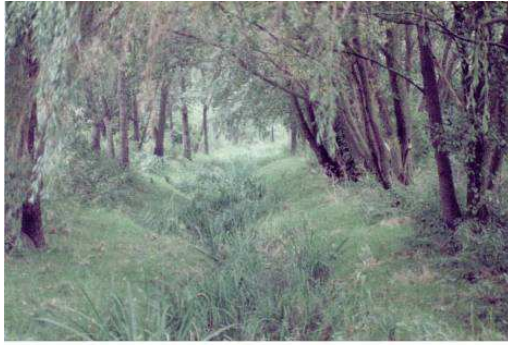
The primarily objective was to restore the brook to its original condition and to revegetate the embankment areas, in contrast to the engineered canal, which was designed only in consideration of hydraulic functions. This is one of the very first environmental restoration projects with the primary goal of restoring an existing water body with the aim of increasing the ecological value. The project employed spectacular construction measures, which then received special media interest against a political background. The straightened brook was restored back to its original course while at the same time taking into consideration the existing vegetation and construction techniques. The concrete elements were removed, the banks smoothed and formed. A variety of vegetation carriers, such as pre-grown Plant Carpets and Fiber Rolls, designed by Lothar Bestmann, were installed. Where possible, the watercourse was widened and still water zones created.

**CONDITIONS BEFORE TREATMENT**

**1983**



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### Results after treatment

The hydrophytes and wetland borders developed very well in the following years' installation, especially *Carex acutiformis* and *Carex gracilis*, as well as the shade tolerant *Iris pseudacorus*. The banks were stabilized and exhibit no signs of erosion. The Plant Carpets and Fiber Rolls became integrated parts of the banks and nowadays only to be observed in fragments here and there.

### Conclusions

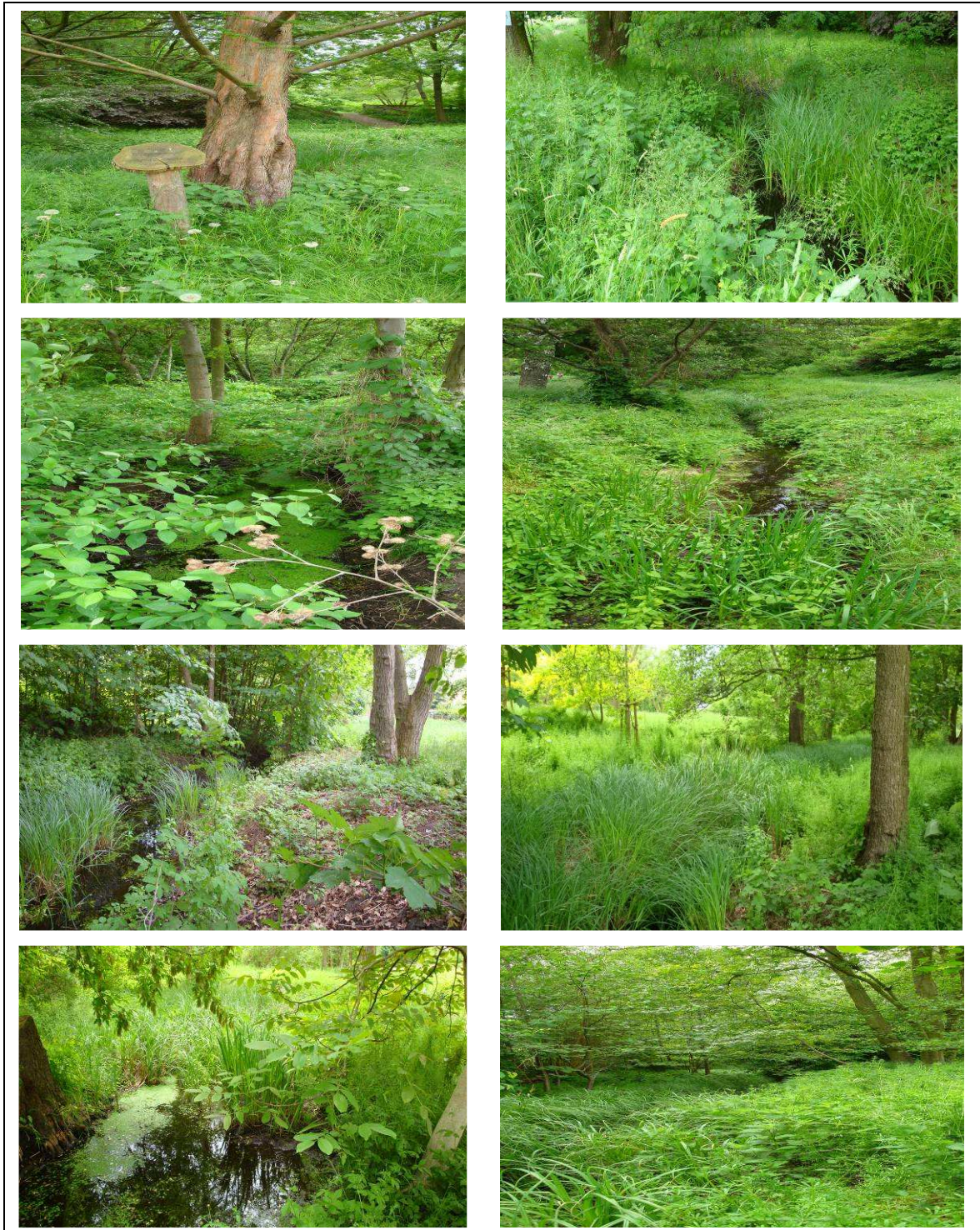
The project was a resounding success with more than enough being done to restore the site. As a result, during the subsequent elections, unifying voices repeated the slogan: "Green at all costs and this immediately". This indeed occurred and was very much to the liking of the Senate of Berlin and the administration. In fact, it must be admitted that less efforts would have shown equally satisfying results. Examinations and site tests in the following years after the restoration confirm this thesis.

CONDITIONS IN MAY 2008

25 YEARS LATER



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