



### Page 70

Sonnenhausen Estate, Glonn  
**Client:** K. L. Schweisfurth  
 Stiftung, Hermannsdorfer  
 Landwerkstätten  
**Water design:**  
 Herbert Dreiseitl  
**Landscape design:**  
 Atelier Dreiseitl  
**Planning and design:**  
 1987–1988  
**Construction:** 1989

**Size:** 4,000 m<sup>2</sup> roof area,  
 18,000 m<sup>2</sup> open space  
**Site area:** 22,000 m<sup>2</sup>  
**Length:** 150 m  
**Water surface:** 2,000 m<sup>2</sup>  
**Total water volume:**  
 2,000 m<sup>3</sup>  
**Flow rate:** 100 l/min  
**Maximum water depth:**  
 130 cm  
**Minimum water depth:**  
 20 cm  
**Water treatment:**  
 Purification biotope  
 surface area 200 m<sup>2</sup>  
**Pump power:** 0.75 kW  
**Residents:** 40  
**Impermeable surface:** 30 %  
**Annual rainfall:** 850 mm  
**Drainage method:** Surface  
 drains, retention pond  
**Soil permeability factor:**  
 $1 \times 10^{-6}$  m/s  
**Infiltration and retention  
 area:** 200 m<sup>2</sup>



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Arkadien Asperg  
**Client:** Firma Strenger Bauen  
 und Wohnen  
**Landscape design and water  
 design:** Atelier Dreiseitl  
**Architect:**  
 Joachim Eble Architektur  
**Planning and design:**  
 1999–2000  
**Construction:** 2001–2003

**Site area:** 15,000 m<sup>2</sup>  
**Watercourse length:** 100 m  
**Water surface:** 300 m<sup>2</sup>  
**Total water volume:** 30 m<sup>3</sup>  
**Flow rate:** 400 l/min  
**Maximum water depth:**  
 40 cm  
**Minimum water depth:**  
 20 cm  
**Cistern volume:**  
 Retention cistern  
 60 m<sup>3</sup>, circulation cistern  
 15 m<sup>3</sup>  
 approx. 15 individual cisterns  
 of 3 m<sup>3</sup> in size  
**Annual rainfall:** 750 mm  
**Rainfall intensity:**  $r_{15(1)}$   
 3.5 l/s/ha  
**Drainage method:**  
 Drainage in open swale  
 and watercourse, storage for  
 toilet use, irrigation of green-  
 space and watercourse refill  
**Water treatment:**  
 Division of total runoff,  
 coarse filter for cistern,  
 fine filter for toilet water  
**Pump power:** 1.5 kW  
**Residents:** 200  
**Impermeable surface:** 70 %  
**Stormwater event:** 5 years



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Garden Festival  
 Chaumont-sur-Loire, France  
**Client:** Conservatoire Inter-  
 national des Parcs et Jardins  
 et du Paysage  
**Water design:**  
 Herbert Dreiseitl  
**Planning and design:**  
 2003–2004  
**Construction:** 2004

**Site area:** 250 m<sup>2</sup>  
**Water surface:**  
 180 m<sup>2</sup> ('Solid and Liquid')



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Coffee Creek Estate,  
 Indiana, USA  
**Client:** Lake Erie Land  
**Water design:**  
 Atelier Dreiseitl/  
 Conservation Design Forum  
**Landscape design:**  
 Conservation Design Forum  
**Architect:**  
 William McDonough +  
 Partners  
**Contractor:**  
 Lakeshore Landscape/  
 Gough Construction  
**Planning and design:**  
 1995–1999  
**Construction:** 1998–2000

**Size:** 260 ha  
**Site area:** 2,000 m<sup>2</sup> designed  
 watercourse  
**Watercourse length:** 60 m  
**Width watercourse:**  
 2–3.5 m  
**Flow rate:** 3,000 l/min



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EXPO 2000 Hannover  
 Kronsberg  
**Client:** Stadt Hannover,  
 Stadtentwässerung  
**Water and landscape  
 design:** Atelier Dreiseitl  
**General drainage concept:**  
 ARGE  
 Dreiseitl/ITWH/IFS  
**Planning and design:**  
 1994–1999  
**Construction:** 1999–2000

**Cistern volume:** 33 m<sup>3</sup>  
**Water treatment:**  
 Purification biotope  
 400 m<sup>2</sup> surface area  
**Pump power:** Solar pumps  
 with ca 1.5 kW each  
**Site area:** 130 ha  
**Residents:** 15,000  
**Impermeable surface:** 80 %  
**Annual rainfall:** 750 mm  
**Rainfall intensity:**  $r_{15(1)}$   
 100 l/s/ha  
**Drainage method:**  
 Constructed swales,  
 retention basins, overflow  
 into Rohrgraben  
**Soil permeability factor:**  
 $\leq 1 \times 10^{-6}$  m/s  
**Infiltration and retention  
 area:** 50,000 m<sup>2</sup>  
**Release rate:** 3 l/s/ha  
**Stormwater event:** 35 years