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## POWERPLANTS AND POWERSEEDS

**DESIGNED BY:** PowerPLANTS: Nik Hafermaas (UeBERSEE INC.) with Jan Edler, Tim Edler, Christoph Wagner (realities:united) PowerSEEDs: Nik Hafermaas (UeBERSEE INC.)  
**AWARD CATEGORY:** COMMUNITY



**Bionic and sustainable artistic light installation.**



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### **Short description of the design:**

Bionic and sustainable artistic light installation.

### **How did this design improve life and for whom?:**

PowerPLANTS and PowerSEEDs — a new generation of environmental public artwork that improves life on many levels: A spectacular landmark for the significant transformation process of the former industrial area, creating a new pride of place for the community. PLANTS and SEEDs generate their own energy and are thus a symbol for sustainability. PowerSEEDs embedded in the sidewalks create orientation on the pedestrian level, providing a new sense of security for every individual. Instead of a monolithic sculpture: de-centralized, dynamic —growing/spreading over time. Individual units are planted and replanted according to the further development of the entire area. Distributed ownership of individual plants through an "Adopt-A-PowerPLANT" program, where donors' names will accompany the installation of each new unit, more will be added on an on-going basis. The project focuses public attention on the City's push toward innovation, sustainability and progressive community development.

### **Possible drawbacks of life improvement:**

none

### **What is the decisive role of the designer/design team in the creation of the nominated design?:**

The vision of the design team to create a sustainable, dynamic and poetic artistic intervention was the main motivation in the design process for the PowerPLANTS and the PowerSEEDs. The designers are driving the entire creation process of this project through all stages from ideation to implementation. Combining the knowledge of structural engineers, solar energy and computer science specialists and city planners, the team was able to conceive a scaleable project that is both visually spectacular, yet respectful to its adjacent communities. Joining forces with the local Arts Commission allowed for a unified approach towards funding the project: funds generated by architectural projects with a specific subsidy for artistic designs, which usually go into monolithic and unrelated installations, are pooled to create this grand gesture on an urban scale.

### **How did the design aspect help provide coherent whole concerning form, function, resources, user kindness, aesthetics etc.:**

PowerPLANTS — a new take on Visual Communication • Through the PowerPLANTS project, visual communication is taken from literal messaging to the abstract exchange flow of information, adding a new poetic dimension to the environment • Dynamic and animated, sending light impulses through an entire area, visualizing the ubiquitous yet invisible information network • Merging natural, random behavior (swaying/turning in the wind) with electronic impulses of an organized swarm of lights • Each unit is designed to be

completely self sufficient without the need for wiring, cables • The PowerPLANTs project integrates additional light sources that are connected to the programmed network: PowerSEEDs that are embedded in the sidewalk-pavement and illumination for the real trees that are in the area.

**The process used to create the design:**

The call for submissions by the City of Pasadena asked for a singular art piece to 'beautify' the site of an active electric power plant, our design goes far beyond this brief: Research revealed that this specific neighborhood and their inhabitants have suffered from decades of neglect — a common phenomenon in urban areas in the U.S.. The main goal of the artistic installation is to create a new pride of place in this community. Embracing the industrial traces of this area, the PLANTs and SEEDs add a poetic quality to the place in a minimalist design. Bionic with natural, plant-like movement, superimposed by controlled impulses of light — this project creates harmony between the location, nature and technology. Challenges in the process were the structural engineering, code compliance and working within an extremely tight budget. Up to the current full-scale prototype status, the original design has not been compromised. Installation of the first 15 PLANTs and 30 SEEDs in mid 2007.

**Functionality and use of design:**

Solar-powered lights that are completely self-sufficient. Each unit is controlled by a highly accurate timing device that can be programmed for various light and color schemes for months in advance. The extreme precision of the controller allows for orchestrated light effects between the individual units. The Poles are 24 meters tall with flexible joints which swing gently in the wind, yet withstand gusts of up to 135 km/h. The design allows for easy adaptation to various other environments.

**Name of Designer(s):**

PowerPLANTs: Nik Hafermaas (UeBERSEE INC.) with Jan Edler, Tim Edler, Christoph Wagner (realities:united) PowerSEEDs: Nik Hafermaas (UeBERSEE INC.).

**Designer's professional status:**

Professional

**Status of realization:**

Prototype

**Kind of design:**

Tangible

**Produced by:**

Idea and design: Nik Hafermaas (UeBERSEE INC.) with Jan Edler, Tim Edler, Christoph Wagner (realities:united) Engineering/production PowerPLANTs: George&Goldberg INC. Engineering/production PowerSEEDs: Visopia

**Designed in country:**

United States

**Used on continents:**

North America

**Link:**

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