

Ars Electronica FutureLab Telezone

An architecture for net architecture

In August 1999, the Ars Electronica Center, in cooperation with Telekom Austria AG, has released a new project to the users of the Internet. The *TeleZone* is a telerobotic art installation that creates a parallel between the real and the virtual. Visitors design architectural structures using a CAD interface. These structures are carefully constructed by an industrial robot arm which cements 1cm rectangular elements within a 2 meter building area. Structures thus exist in two forms: within the virtual space of a 3D simulator, and within the real space of the Ars Electronica lobby. The result will reflect both the complex social interactions of the builders and the contrast between the Cartesian world of pure design and the realities of mass, gravity, and imprecision.
Ken Goldberg

Communication, commerce and services are increasingly withdrawing from urban spaces and shifting into data networks. The adaptation of the WorldWideWeb as a sphere accommodating social interaction reflects this development.

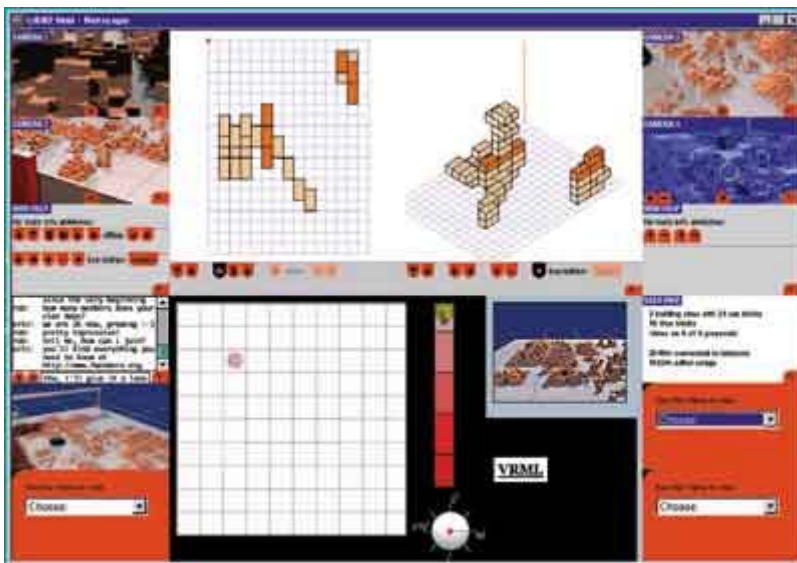
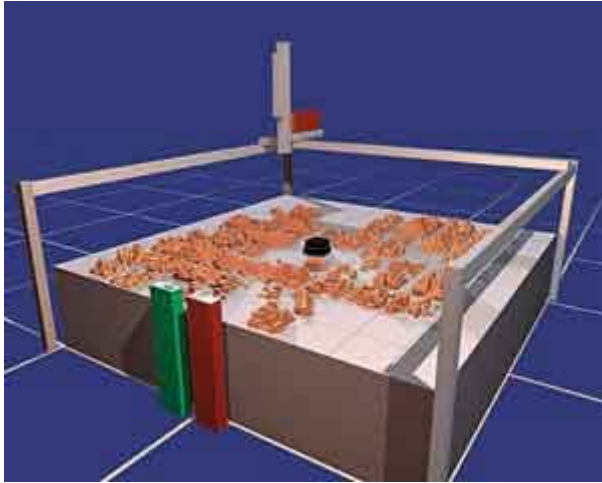
One observable phenomenon in this context is the formation of "virtual communities." Questions concerning possibilities of expanding the sphere of effectiveness of human actions in connection with "new" media, and the role of the individual in these communities, suggest themselves as topics of discussion. *TeleZone* represents the creation of an experimental situation meant to take up and shed light upon aspects of the formation and development of virtual communities.

A robot linked to the Internet enables users of the WWW to plan and construct architecture via the *TeleZone* website. The robot is to be regarded as the crystallization point of a self-organizing community. The actions which the community undertakes together have correspondences both in the real and the virtual world.

The community's organization and communication processes are visualized throughout the developmental process leading from a vacant site to a complex architectural structure. The edifices that take shape thereby are not only actually constructed via robot, but also depicted as a VRML world at the *TeleZone* website.

Completely consistent with the objectives of the project is the possibility of the real model deviating from the data specifications due to previously unforeseen circumstances. The community is initially provided with a context of rules which is essentially defined by "physical framework conditions." The openness of this body of rules is designed to foster—as part of the experiment—the striving toward self-organization that is immanent in the system. At regular intervals, the participants will be called upon to decide on modifications of the rules through a democratic vote. The *TeleZone* concept motivates users to interact with other project participants in order to expand the effective range of their actions.

The interface to *TeleZone*—the *TeleZone* website—is designed to allow each user to arrange it individually in accordance with his/her needs at any moment. Thus, the "construction tool," various camera settings and views of the actual model, chat channels, specific help functions, and additional features can be arrayed in a window as a particular situation demands.



The accompanying theoretical evaluation of the results of the *TeleZone* project will be carried out in interdisciplinary fashion by scholars representing a wide range of disciplines and approaches. Their focus will be both on observing how processes transpire within virtual communities as well as the relationship between the architecture and the network.

In conjunction with the project launch, several architects from around the world are being invited to design the *TeleZone* site according to their individual conceptions and to initiate a discourse on architectural theory.

Scientific Advisors:

Department of Media Technology and Design, Hagenberg Technical Institute, DI Dr. Wilhelm Burger
 Department of Software Engineering, Hagenberg Technical Institute, Univ. Prof. DI Dr. Jacak Witold
 Institute for Design and Efficiency Research, Technical University of Vienna, Univ.-Ass. DI Dr. Peter Purgathofer

Institute of Journalism and Communication Sciences, University of Vienna, Department of Electronic Media and New Media, Univ.-Ass. Mag. Gerit Götzenbrucker

Center for Gerontology and Social Policy Research, Academy of the Province of Lower Austria, St. Pölten,
 Department of Social Affairs and Health, Mag. Bernd Löger

TeleZone Team

TeleZone is a project of the Ars Electronica Center and Telekom Austria AG, with support from Wittmann Robotics and Automation.

Produced by Ars Electronica FutureLab

Project Director: Erich Berger / Ars Electronica FutureLab

Concept Consultant: Ken Goldberg / UC Berkeley (US)

Programmers: Wolfgang Beer, Volker Christian, Oliver Frommel, René Pachernegg, Jörg Piringer, Nestor Pridun, Christian Retscher, Markus Seidl, Martin Wiesmair

Web Design: igw in collaboration with gregerpauschitz f.o.p

PR: Ursula Kürmayr, Pascal Maresch, Florian Sedmak and Martin Lengauer