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GPS-Art is a new art domain, is a new field of artistic activity based on the motion in an open, outdoor space. GPS-Art is the global interactive instrument used for setting up and processing of audio and video material. It integrates elements of audio-visual installation to be used for intermedia communication. All projects of GPS-Art explore large urban and open spaces. Projects are ready to be arranged and performed on land, water, air, underwater, as well as in outer space. All GPS-Art projects use GPS-12 device (Global Positioning System used for navigation), Internet, as a large net-instrument, as well as mobile phone technology. GPS-12 describes its own location reflected from the position of 12 satellites hanging above the Northern hemisphere of the globe. Originally GPS-12 is used for navigation and measures in interactive way many topographic parameters, among others: latitude (from 10 meters through thousands of miles), speed and many others. All measurements are used as a starting points for many art projects of GPS-Art. Since 2001 through 2007 GPS-Art idea was realized by series of eight GPS-Trans net-cellphone-GPS performances, where term Trans refers to the transmission in time and space.

The **GPS-Trans 1** (part of <http://krakow.cafe9.net>) was realized on December 16 and 17, 2000 in form of online, live Internet composition. It combined four 3-hours blocks of total 12 hours webcast. Sixteen mobile phones transmitted sounds from different places at the very center of the Krakow city. All of them were mixed and transformed live in a studio and sent individually through dedicated audio channel to the web to be received with 14-16 seconds Internet Delay. Overlapping delayed audio material was the essence of Internet Loop and Internet Wave. Those particular processes were used as a two principles of GPS-Trans 1 for audio Internet manipulation. The project was also introduction to non-commercial web/radio channel, using free software for art activity.

The **GPS-Trans 2** has been performed on August 9, 2001, as the second part of the city sound exploration, called „Audiovisual map of the Krakow city“. Map of the town was used as a graphic score of the audio-visual composition. Position of the car moving through the city with the GPS-cellphone system installed was an original element of the project. The car was used as a live performer of the city, the large urban instrument. Regions between small (Planty) and big ring (Aleje) of the Krakow city was the area of the GPS-Trans 2 exploration. Selected parts of the center of the city were divided for 63 small regions. Hundreds of the most characteristic audio recordings from each region were loaded to the server/sampler to be controlled live during the performance of the project. GPS-Trans 2 was webcasted live through Czech Internet Radio Jeleni, the regular Internet radio channel.

GPS-Trans 3 was performed on December 2, 2002, with similar principles as a GPS-Trans 2. However new visual forms were included to the project. The car moving over selected sectors of the city controlled live sounds from prerecorded areas. The new element was the series of pictures controlled live by the speed of the car. The interactive slide-show was the element of the website available for all Internet users becoming active performers of the project, observing live the car activity, the car performance. The original, new element of the GPS-Trans 3 was the arrangement of the mirror interactive

system installed in Chicago. In this case GPS-Trans 3 used the Internet bridge for the twin simultaneous performances in Krakow and Chicago. GPS-Trans 3 was one of three European projects, part of *Cathedral*, multi-continental Internet project composed and performed over years by Williams Duckworth. (www.monroestreet.com/Cathedral).

Additionally all GPS-Trans projects, 1-3 were projected live from the web at the Bunkier Sztuki, Krakow city modern art gallery.

To obtain the Internet project is a special challenge according to the hidden, anonymous audience distributed over the globe, participating in such a projects in an anonymous form, as radio and TV. Since the beginning the promotion and the access of all GPS-Art projects since 2000 – 2002 were synchronized with regular and public Internet channels.

In 2003 the Internet as a main projection and performance space was replaced by the single public space supported by the live webcast transmission. Since that time all GPS-Trans projects were performed mainly for the audience at the single gallery space with additional webcast. The basic change of the venue of GPS-Trans projects with the priority to certain, single public space changed also the form of performance and other elements required. **GPS-Trans 4** was the turning point in the whole GPS-Art based series of performances. GPS-Trans 4 was prepared and performed at the Krzysztofory Gallery in Krakow on June 30, 2003. The new video material from the Krakow city was recorded through the set of four, synchronized digital camcorders, fastened in the car, capturing front, back and both sides of the moving car. In this way the center of the city was explored and recorded through the originally composed mapping system. All video and audio recordings were used later as a material for interactive video and audio streams toward rectangular form of 4 screens at the Krzysztofory Gallery imitating the cabin of the car, used earlier for the city recording. The audience was located inside and outside the projection box to be an active receiver of the interactive projection. The car sends its own coordinates through GPS/GSM system to the server controlling different parameters of live audiovisual projection. The Improvising Artists Ensemble featured by Miho Iwata, Tomasz Choloniewski, Rafal Mazur, and Tomek Nazarewicz performed live concert with interactively completed 3.4 dimensional audiovisual map of Krakow city.

GPS-Trans 5 was based on live video web transmission from the car exploring Luxembourg city on January 16, 2005. All the material was used in a form of active 3-dimensional, audiovisual score for the live, semi-improvised performance. The ensemble of nine musicians performed concert live at the Bunkier Sztuki city gallery. The following musicians and artists designed and performed the GPS-Trans 5 team: Marek Choloniewski, Marcin Wierzbicki, Jan Choloniewski, Keir Neuringer, Gilad Roth, Sacha Pecaric, Tomek Choloniewski, Tomasz Nazarewicz, Krzysztof Iwanicki, Rafal Mazur, Lukasz Szalankiewicz.

Basic elements of GPS-Trans 4 were arranged and performed again outside of Krakow during **GPS-Trans 6** at the Ujazdowski Castle in Warsaw on December 9, 2005. Interaction between past and real recording resulted in the original and unique video and audio phase shifting, multichannel illusion of real/non-real space, continues overlap between prerecorded and live material.

The GPS-Trans 6 team included: Marek Chołoniewski, Marcin Wierzbicki, Jan Chołoniewski and Maciej Walczak.

Moving out of Poland with GPS-Art idea was the main challenge for several years, since GPS-Trans 2, where the internet bridges was designed and arranged between Krakow and Chicago. So the American city with the huge Polish population was considered already in this time as a GPS-Art city to be chosen in the future. However moving the project to another country with different circumstances was the big deal.

The long research completing all necessary elements was made by Ryan Ingebritsen and Marcin Wierzbicki in Spring 2007. Art design of the original **GPS-Trans 7** project was prepared and arranged by Marek Choloniewski, as a part of his residency in US supported by the CEC ArtsLink grant.

The Deatech gallery was the main venue of GPS-Trans 7, an independent gallery outside the center of Chicago city. The distance from downtown to the gallery was the basic diameter of the city measured between downtown to the North, West (Deatech Gallery) and South of the Chicago City. The half of the circle was the geometric form, located on the West of the Michigan lake. During 2 weeks the selected area was divided by 83 sectors with independent measurements, audio and video recordings. All recorded material were used as a live samples for interactive score projected over cubic screen at the Deatech gallery. 3D video and 4-channel audio projection of the Chicago city were controlled interactively by the car moving live with GPS/GSM system over selected areas. All coordinates, as well as speed of the car determined directly the selection of prerecorded material, as well as the speed of the video and audio projection. The ensemble of local musicians featuring William Jason Raynovivh, Jason Wampler, Michael Patti, Shannon Budd, Rob Ray and Gabriel Patti followed interactively performed score of the Chicago city.

One month later on May 7, 2007 at the Bunkier Sztuki gallery **GPS-Trans 8** was arranged. Four cities already participating in GPS-Art idea were mixed together. The video prerecordings from Krakow, Luxembourg, Warsaw and Chicago cities were projected simultaneously over 4 screen controlled by two cars exploring live Chicago and Luxembourg. The Improvising Artists ensemble featured by: Tomasz Choloniewski, Michal Dymny, Rafal Mazur and Tomek Nazarewicz performed the live concert following the interactive score of the streets from 4 cities.

All GPS-Art projects explored the very special use of networking. Series of miscellaneous models integrates different wireless technologies. They use discrete, invisible and virtual channels for limited and controlled streams of coded data, converted and controlled by moving objects (cars), live performers (musicians) and observers/listeners/receivers (audience located in a single venue and global space). All technologies, processes and art models invented and designed for GPS-Trans projects have the open form and can be used for different art purposes. Since they invented different models of art transmission in time and space they are to unlimited art purposes.

www.gps.art.pl