

Digital cloud may rise over London (w/ Video)

November 13 2009, by Lin Edwards



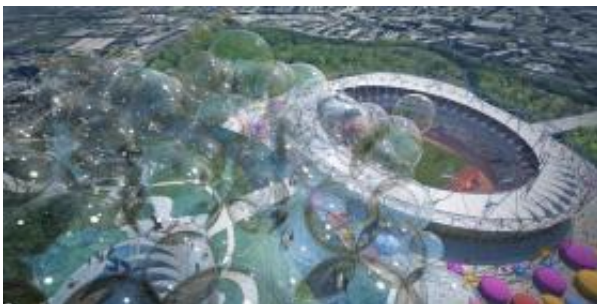
(PhysOrg.com) -- An international group of artists, engineers and architects have proposed an enormous "digital cloud" to turn London's skyline into an overhead display of data and images.

Originally suggested as a center piece for the London Olympics village, the digital Cloud would comprise thin and lightweight mesh towers 120 meters tall and stabilized by a series of metal cables. The towers would be dampened by a similar technology to that used in skyscrapers in Japan to resist earthquakes, so they would not be affected by the wind. Above the towers would be a series of interconnected inflatable plastic bubbles.

Apart from displaying images and data, the Cloud would also function as a park and an observation deck. People would be able to reach the tops of the towers via ramps, stairs and elevators.

The designers of the Cloud plan to take the unusual step of funding the installation from millions of small donations from members of the public. One of the architects, Carlo Ratti from the Massachusetts Institute of Technology (MIT) in the US, said the project was about ordinary people gathering resources together to raise the Cloud. The design is flexible enough to allow it to be adjusted to the funds available, so the number and amount of donations will determine the size of the Cloud.

The Cloud design was originally submitted to a competition set up by the Mayor of London, Boris Johnson, and has been shortlisted. The competition aimed to attract entries for a tourist attraction in the Olympic Park that would be a legacy for London's east end. The winner of the competition has not yet been announced.





Regardless of the outcome of the competition, the Cloud's architects and engineers, who include author Umberto Eco, and engineers from Arup, a global engineering and consulting company, have decided to publish details of their concept. The structure is influenced by the work of a German artist famous for large inflatable structures, Tomas Saraceno.

The design team suggest the plastic used to build the Beijing Aquatic Centre, Ethylene TetraFluoroEthylene (ETFE), would be the best plastic to use for the inflatable bubbles. The spheres would have a number of functions, including decoration, LCD screens for projecting images and data, habitable spaces, and as structural elements.

Structural engineer Professor Joerg Schleich, said the transparency and minimal use of material, along with the enormous volume created by the spheres, were the team's great achievement. Schleich has been involved with a number of projects that included lightweight towers. He was also responsible for designing the stadium for the Munich Olympic games.

The information feeds to the LCDs could be supplied by Google, which is supporting the project. Data could include custom feeds of searches

made by people in London during the Olympics, to offer an idea of the moods and interests of the city's population. Other data projected could include weather forecasts, results, crowd numbers, or images of the games or the Olympic Torch.

The structure would include solar cells on the ground and in some of the plastic bubbles, and the lifts would use a similar sort of regenerative braking to that used in hybrid cars. The Cloud would therefore only use energy it has harvested, making it a structure that requires no power inputs from the grid.





More information: raisethecloud.org/

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