

THE CLOUD

“Without the fog, London wouldn’t be a beautiful city,”

the French painter Claude Monet wrote to his wife, Alice, during one of his long visits to England from France.

EVOLUTION

The history of Olympics and Expos is one of heaviness – of mass and monumentality and conspicuous expenditure on immovable objects whose legacy has occasionally endured, but have always been outdated. Our most extraordinary contemporary feats of engineering are more stealthy, more extensive and more invisible than these traditions of glass and brick and steel: Code rather than Carbon.

The Cloud proposes a new form of monument – a new form of collective expression and experience, and an updated symbol of our dawning age. It proposes an entirely new form of observation deck, high above the Olympics – from which one can not only see the whole of London, but the whole of the world, immersed in the euphoric gusts of weather but also immersed within that new, pressing and endlessly compelling environment in which we increasingly congregate – the digital sublime.

The secret ingredient that helped the Pyramids and the Eiffel Tower endure was their ephemerality: the Pyramids, for all their mass, focussed on the light of distant stars, whilst the Tower streamed radio. All that is solid melts into air; all that is air melts into data.

It is the atmosphere itself – the elements and the datawaves flowing through them – that truly evokes the ultimate Cloud, and the electronic-analogue sublime of a digital experience floating above the city.

As London’s only mountain-top – our own outdoors escape on and above our very doorstep, an aerial paradise for hikers and cyclists, birders and tourists – it provides a watery vertical ecology to complement Stratford’s new fluid horizontal landscapes.

The principal effects of **the Cloud** are generated from their context – from the aerial sea of swarming data, from the diverse populations of London, the UK and the wider string of global villages, and from the seamless stretch of weather that unites us all.

FORM

The structure is comprised of a filigree central array of columns – servicing as circulation systems dropping from the sky like the tendrils of a banyan tree system.

Henri Labrouste’s design for the original Biliotheque Nationale used ultra-slender column structure intended to appear as a tensile cable system holding down the lightweight floating domes above.

These spread and flower at high altitude into a series of lightweight grille decks within a dense aggregation of transparent inflated spheres, which in turn lead to a series of clustered perimeter observation decks where visitors can emerge from protected enclosures to walk “above the clouds” – multiple datums within the data. At the very edges, small aggregates of cloud hover and disperse, their positions variable and controllable through the temperature of the inside air, enabling the overall form of **the Cloud** to recombine and reassemble at will.

The design could numerically and geometrically reference both the number of local London villages, UK counties, EU states, Olympic participants or wider populations, its numbers developing a language constantly re-visualising and re-describing our contemporary world.

The inflatables are saturated with an LED information system which densifies locally into lightweight info-screen hotspots where visitors can navigate information about the immediate surroundings. The luminosity and air pressure of each sphere is independently controlled – giving rise to the networked, self-organizing **Cloud**.

PEOPLE

Athletes and audiences from all around the world converge at Stratford; **the Cloud** reconnects us all back to our source, our states, our ground and air and essence, meshing the world through the democracy of both communal visceral experience, and an immersion in crowd-sourced data.

People can choose to ascend to **the Cloud** by foot or bicycle – gaining the status of everyday Olympians, each individual footstep contributing to a vast collective energy-harvesting effort.

Inheriting **Confucius** from the hosts of the last Olympics: “A journey of a thousand miles begins with a single step.”

People can contribute in person, with flesh and blood, or remotely, via digital media. The Beijing Bird’s-nest, would now at last be lifted aloft, alive with digital bird-song.

Eiffel engraved the names of 72 top engineers and scientists at the top of his tower. **The Cloud** would celebrate a more diverse and less elitist humanity.

ENVIRONMENT

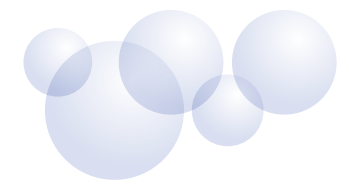
The Cloud addresses our twin attention spans of the short-term desire for information and stimulation, and our growing longer-term consciousness about our impact on the future, and our productive role within a larger harmonious ecology. It provides two resources – energy and data – harvesting both the natural ecosystem and humanity’s complementary cybersphere, fusing the two.

The weather is our national obsession, uniting art and chatter; buses and markets are as alive with the discussion of clouds as the canvases of Constable or Turner

Rainwater trickling over its surfaces and displays is collected and redistributed. Wind energy, amplified at elevation, is harnessed. Photovoltaic inflatables at the fringes can be unreeled during the day and docked at night or in high winds.

The Cloud will soar in the sky in the very area where plumes of smoke once rose from smokestacks – those symbols of an older London, the ‘workshop of the world’, powered by steam, teeming with energy, speed, industry and innovation – and pollution. It will show how far we have moved on. But it will also point to our new future as a global city, the factory of the new economy and the new ecology, where new ideas and possible future trajectories are bravely probed.

As Bruce Schneier observes, cloud-computing (or software as a service, delivered online) entails trust; **the Cloud** symbolises this collective, distributed social effort, and our environmental interdependence on each other



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INFORMATION

Like all tell-tale signs of brooding weather, **the Cloud** is a display system. It is both screen and barometer, archive and sensor, past and future. The patterns of its animated skins offer a civic-scale smart-meter for the Olympic Park and for London as a whole, sign-posting particular events, transport patterns, weather forecasts, timetables, and footage either real-time or decades old. Its movements can reveal the movement of both the crowds below and those within its structure, detected by hidden sensors - a space alive to the touch, an aerial ecology.

It implements a radically new non-cartesian method of spatial display (a suspended field of distributed LED signage) that enables it to be seen from all directions, including from within. It destroys the antique divide between audience and spectacle; the people become the project & projection, watching and learning from themselves, transmuted into light. Yet it also maintains the potential to be momentarily centrally steered - transmitting a more edited institutional voice to complement our emerging citizen journalism.

The Olympic Games have historically pioneered great innovations in time-keeping and cinematography; **the Cloud** would be the perfect instrument for that holy grail - the 3d broadcast of today's pervasive data clouds.

The Cloud would spatialize internet data, precisely geo-locating information feeds that could include energy use, spectator numbers, decibel levels, medal updates, transport patterns, mobile phone activity, internet traffic, etc. These informational waves would expand to relate beyond Stratford and London to the rest of the world - like the great Olympic event that they celebrate.

Paris 1889 : ferrous anti-gravity > Chicago 1893 : immersive electricity > London 2012: inhabitable data

Slender, light and luminous, **the Cloud** is a live real-time beacon for the Games, and for the broader climate of humanity. It is a monument to the Games and to freedom itself, empowered by the emancipation of knowledge and technology.

FUNDING

Everyone from around the world will be able to contribute to **the Cloud** - whether through the admission charges and bodily presence of their visit (where they can in person contribute a piece of data to this vast collective memory), or by their contributions towards a particular sphere and their ownership of a single LED, helping to keep the lamp of London aflame. Each light could represent a person in the city, who can then choose to control it as desired; or, with fluctuating occupancy, each LED could represent a community from another nation - a varying real-time portrait of humanity and everyday Olympians.

Each light could represent a person in the city, who can then choose to control it as desired; and the reference data could fluctuate, so that each LED could represent a community from another nation, aggregating a constantly-varying real-time portrait of humanity and our 'everyday Olympians'.

Many small contributions from the several million Olympian visitors and the 5 million anticipated annually quickly amount to a vast sum - as witnessed by the Obama campaign's fundraising. This could thus entirely avoid less-desirable commercial spot ads across the pixel field - even though these could be spectacular, and curated.

Revenu-generative 'cloud-raising' would ripple outwards from its local East-End conditions to the wider networks of London villages, English counties, UK islands, EU countries, Northern Hemisphere continents, and Planet Earth. Like the weather, **the Cloud** knows no boundaries, but connects everyone across time and space, from London to the UK, the EU, the world and beyond, everyone unified in its ever-fluctuating embrace of nations and peoples.

London, with its diversity and tolerance, unites countries; **the Cloud** unites all people.

COST ESTIMATE

The cable net towers with and without ramps are estimated at 4.5M GBP and 2.2M GBP respectively, excluding foundations. A basic cloud structure with inflatables is estimated at 5M GBP. Engineering and design fees are estimated at 1M GBP. This totals approximately 15M GBP.

The Cloud structure will then expand up to 15,000 square meters through a distributed fundraising process, whereby individuals and communities can help cloudraising process.

We would recommend that the Mayor's Office might use the same distributed process also for the fundraising of the initial 15M GBP - making the Cloud the first collectively- produced global landmark.

POSSIBLE SUPPLIERS

Based on our initial estimates, at least 90% of the project components could be manufactured in East London, Greater London and the UK. Different members of the team have already been in touch with the following companies:

Inflatable membranes

Vector Foiltec
91 Brick Lane, London E1 6QL
United Kingdom

Bar and cable systems

Macalloy
Caxton Way, Dinnington, Sheffield S25 3QE
United Kingdom

Digital control and technology

BT
81 Newgate Street, London EC1A 7AJ
United Kingdom

Solar Photovoltaics

BP Solar
1 St James's Square, London, SW1Y 4PD
United Kingdom