

Emerging Type: Urban Scale Air Cleaning Facility

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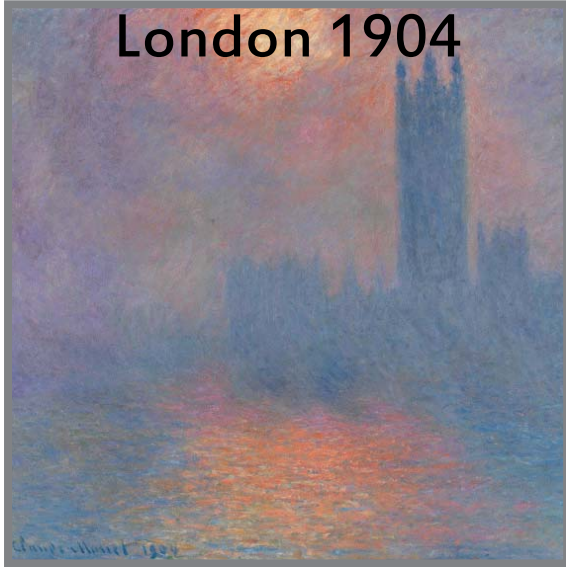


The story of human kind...

ancient



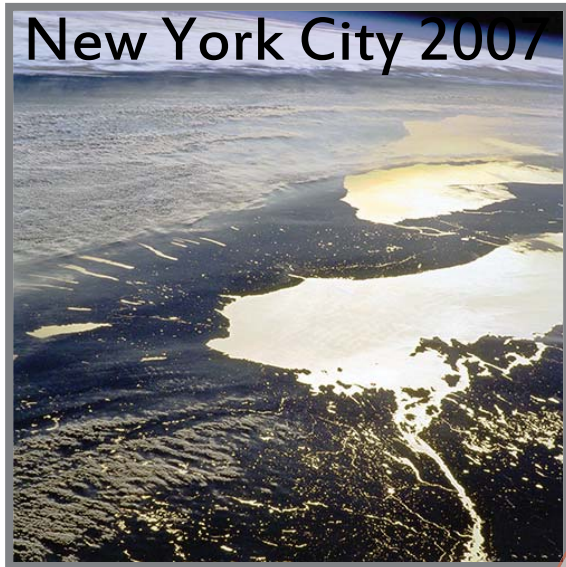
London 1904



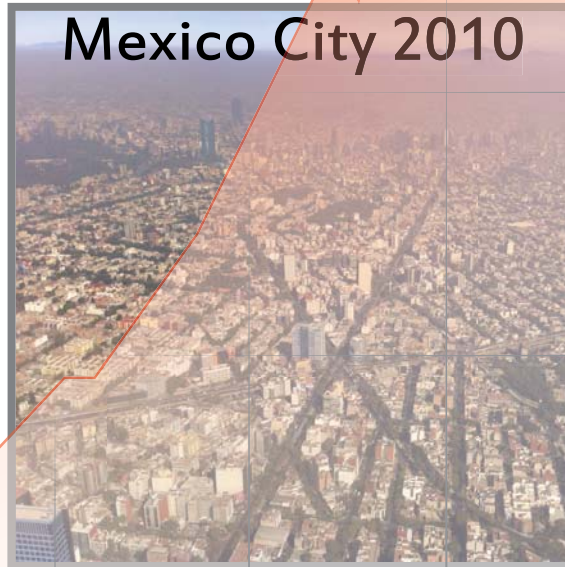
Beijing 2005



New York City 2007



Mexico City 2010



30,000 Teragrams CO2

25,000 Teragrams CO2

20,000 Teragrams CO2

15,000 Teragrams CO2

10,000 Teragrams CO2

5,000 Teragrams CO2

... and pollution

1910

1930

1940

1950

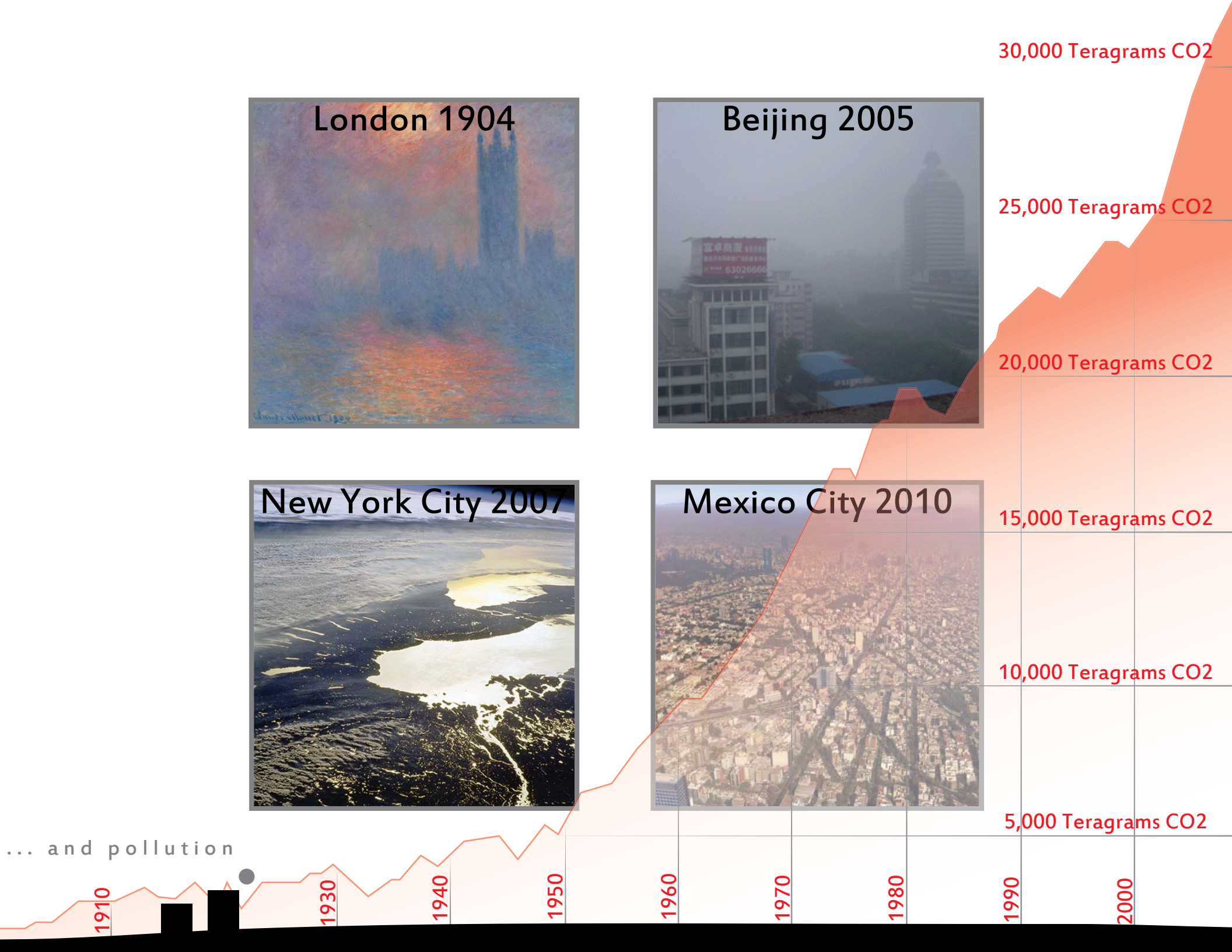
1960

1970

1980

1990

2000



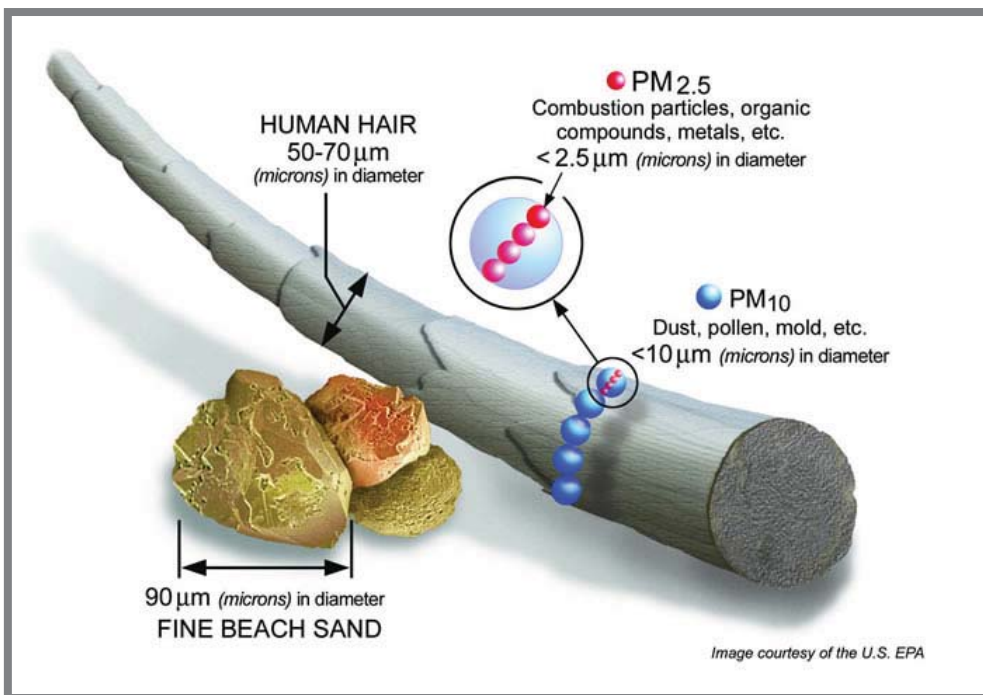
“Since humans began colonizing during ancient times, particulates had started to rise into the air. As technology continued to explore new avenues for construction, invention, and general human endeavors, pollution in urban settings increased. The particular danger associated with pollution has to do with health - not only for humans, but for animals, plants, and the ecosystem of Earth. Designers regularly must ask what place in the urban fabric their building has.

How does this building type share space with other similar or dissimilar types? Traditionally, intensive manufacturing building types required space away from humans, where the function type may pollute with little impact on humans. Obvious in the previous images however, placement of building types that pollute (nowhere near these major city centers) has little to do with location. It is humans that cause pollution. In order to reverse this polluted era, a new building type must emerge in the urban setting.”

Richard H. Wilson



HERE'S THE SCIENCE:



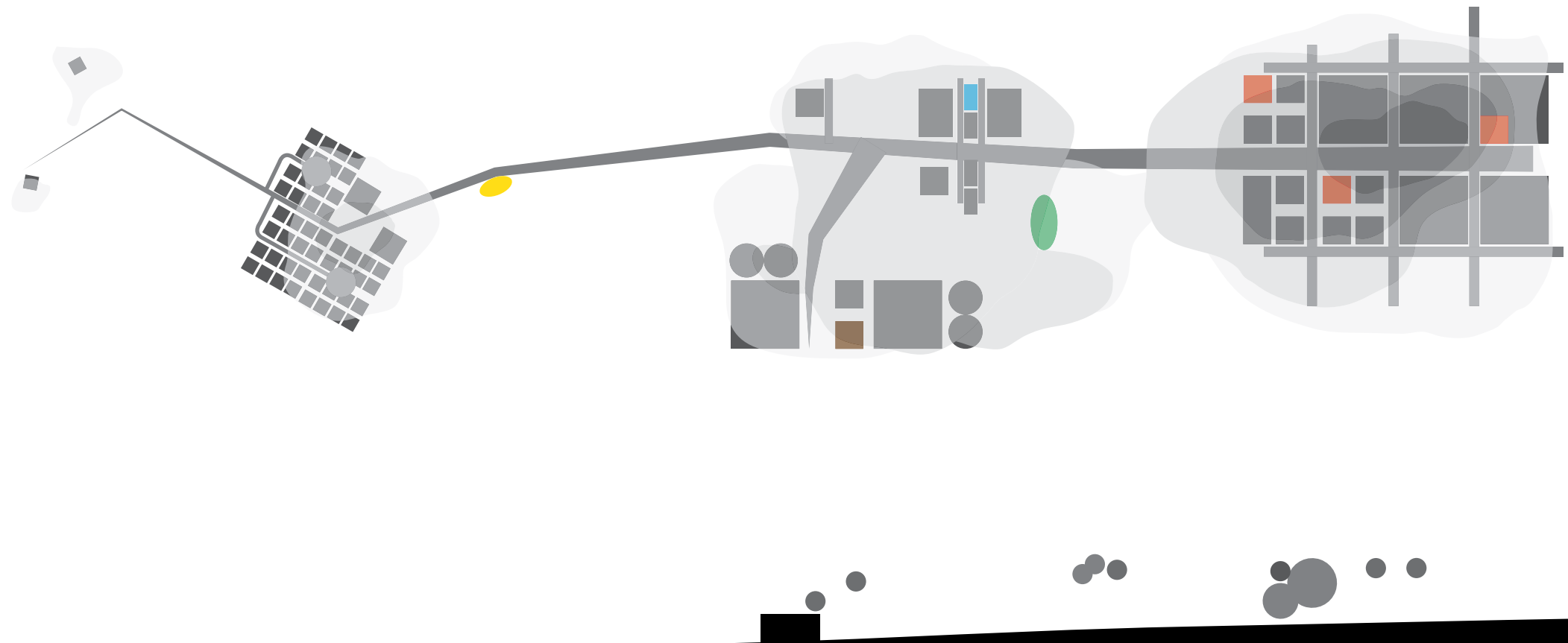
HERE'S THE PROBLEM:

YOU
... and 7 billion other people.



So where do YOU fall into this scheme?

And where will this **emerging building type** need to be in relation to YOU?

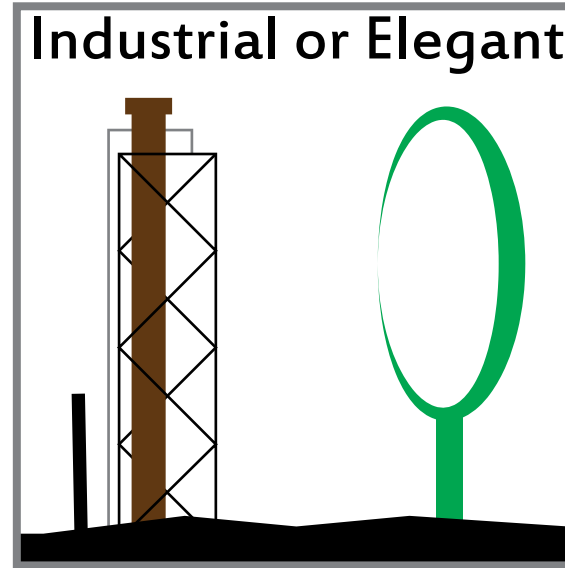


What form must this **emerging building type** take in order to be successful?

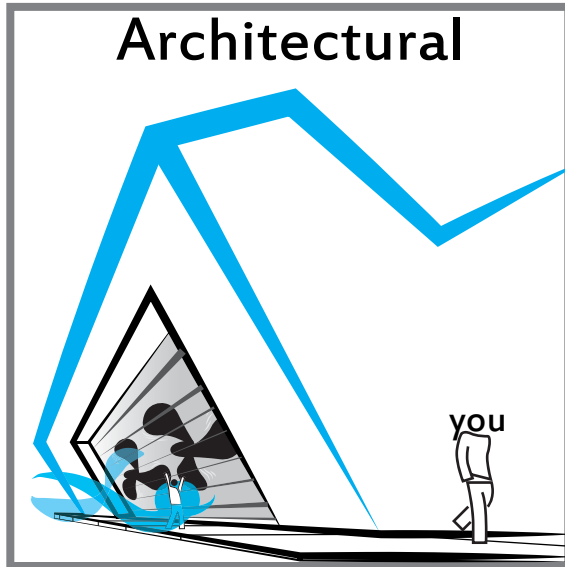
A Duck



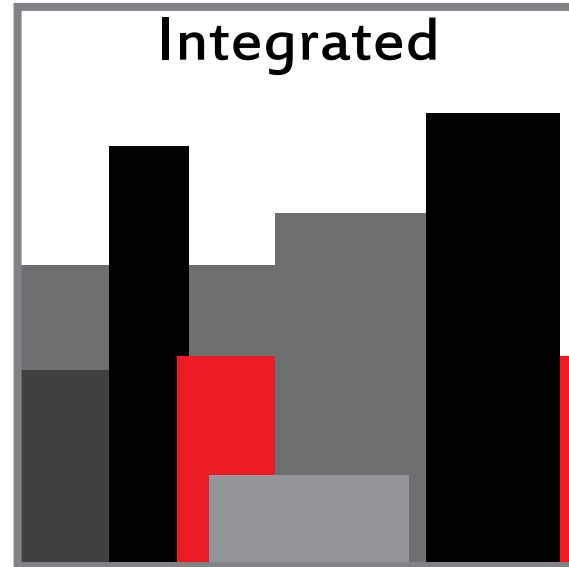
Industrial or Elegant



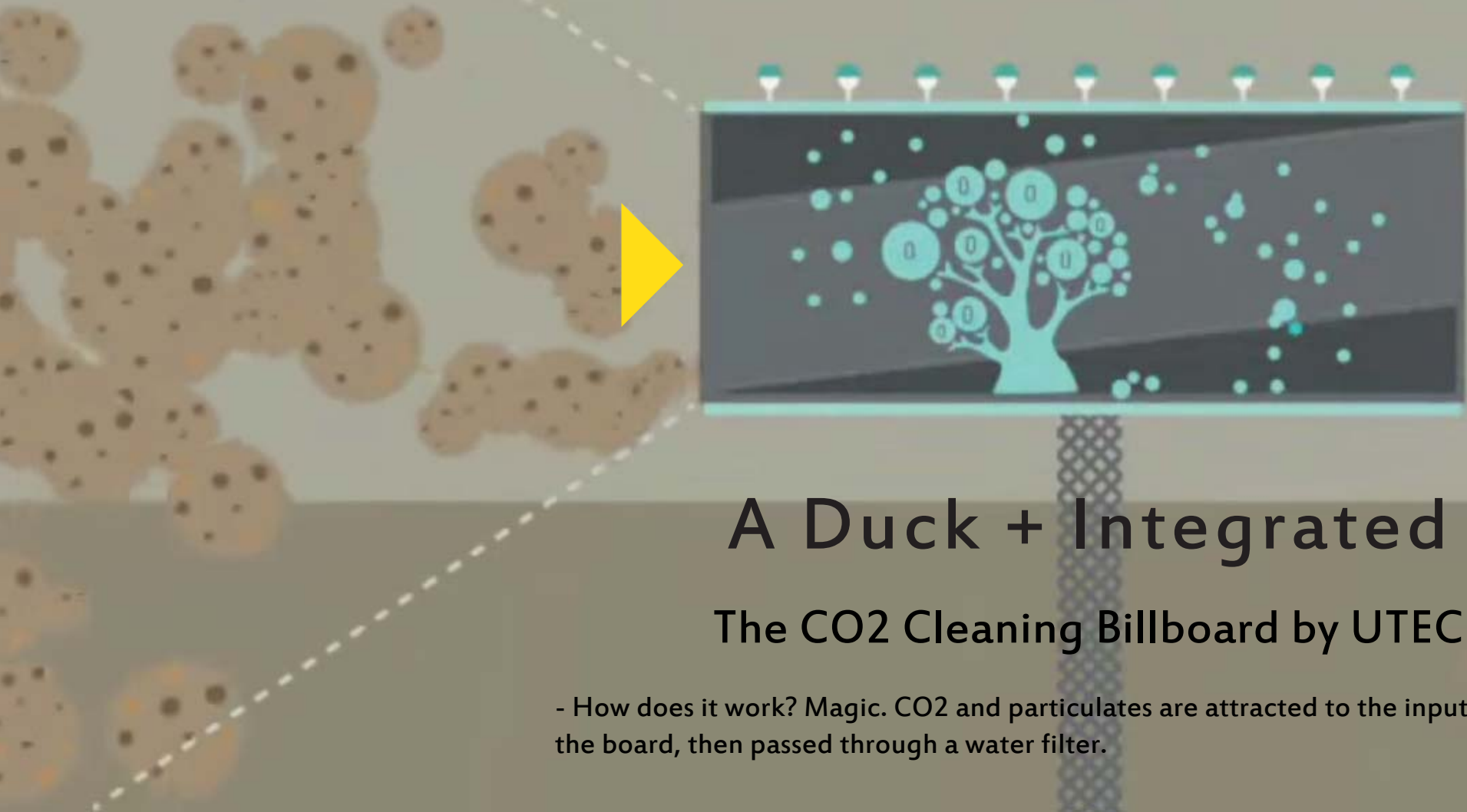
Architectural



Integrated

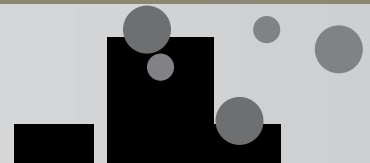


THE TECHNOLOGY ATTACHED TO THE BILLBOARD
ABSORBS ALL THE POLLUTED AIR AROUND



A Duck + Integrated The CO2 Cleaning Billboard by UTEC

- How does it work? Magic. CO2 and particulates are attracted to the input side of the board, then passed through a water filter.



AND RETURNS PURE AIR TO
THE SURROUNDINGS.



A Duck + Integrated

The CO2 Cleaning Billboard by UTEC

- Equal to 1,200 trees of air-purification.

- Where may it be placed? Anywhere billboards may be placed, and where YOU are.

Architectural

Milan Expo Pavilion 2015



by Nemesi & Partners

- Utilizing a proprietary air-cleaning concrete facade made by Italcementi

- TX Active - i.active Saylor's Photocatalytic Cement.

- "The principle will accelerate the formation of strong oxidizing reagents which will result in the decomposition of organic and inorganic pollutants."

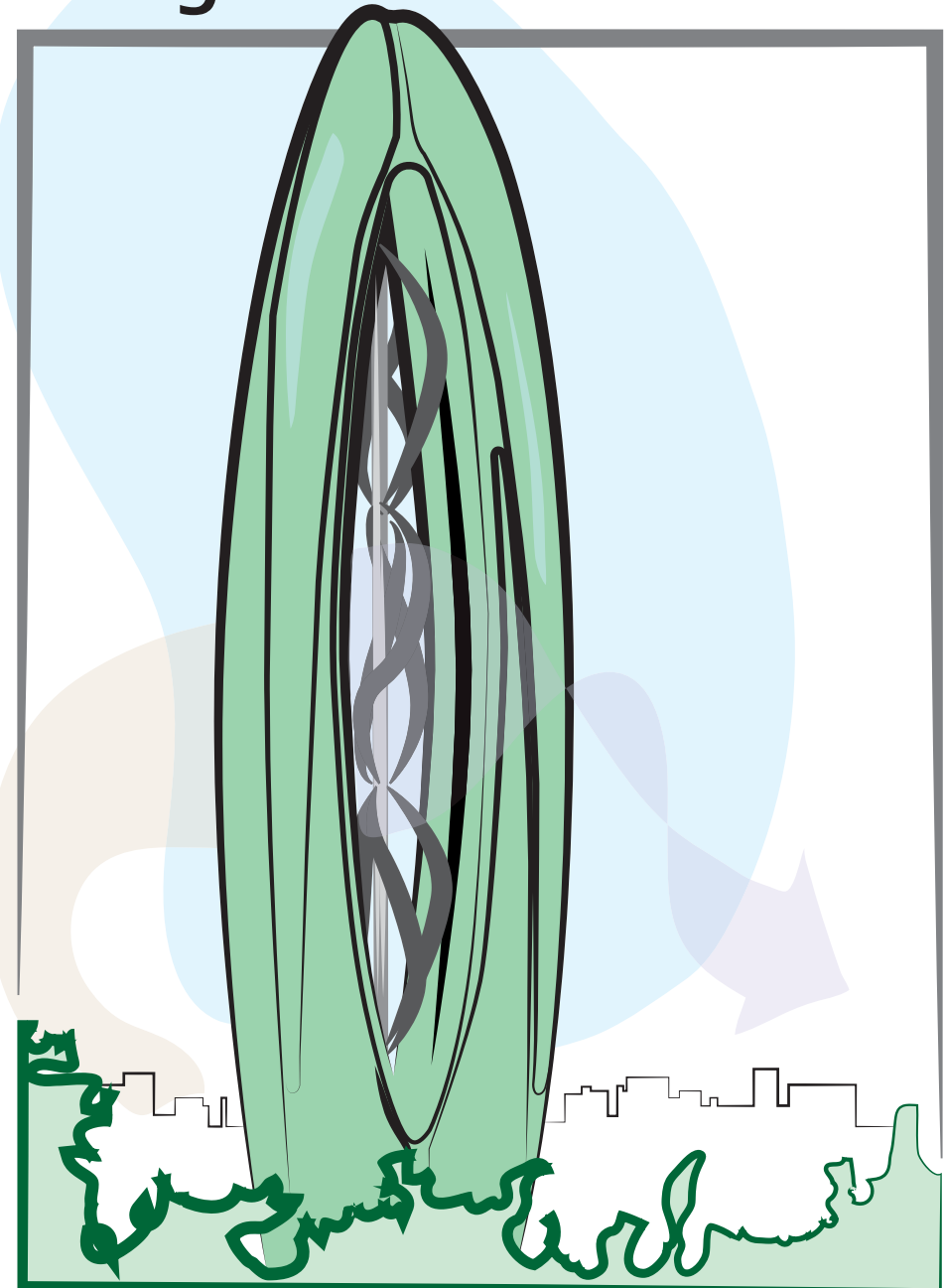
~ Essroc Italcementi Group, 2013

the BIONIC ARCH

by Vincent Callebaut Architectures

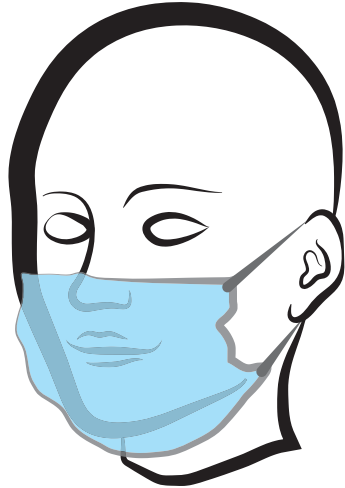
- Proposition for an urban air CO2 cleaning tower structure.
- Filled with leafy greens.
- Enslaves biological creatures, and forces them to suffocate on human-generated pollution.
- The Eucharistic celled creatures release clean air that humans covet.
- A machine that contains plants, is out of human scale, but is made for human benefit.
- How does it work? Huge turbines, and magic of course.
- Would something like this actually work?
- At what rate may plant life consume CO2? This depends on plant size, amount of daylight, access to air, and proper soil conditions.
- How would YOU feel having a massive pickle in your backyard?

Elegant + Industrial

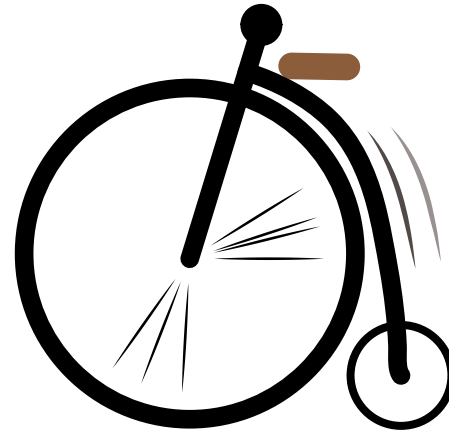


What will YOU do about it?

Artful



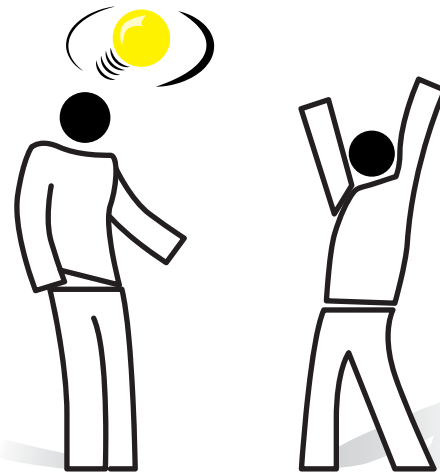
Efficient



Simple



Effectual



Bibliography

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