

The New Geometry (extract from: Wall-to-Wall Drawings, Drawing Papers 53, The Drawing Center, New York, June 2005).

In *The New Geometry* (2003-04) Charbel Ackermann developed a system of geometry based on The Axis of Evil. The work uses a didactic voice to explore the notion of the axis in depth. It is an attempt at a new geometry for the global space. It uses displays and text as teaching tools for the new approach. Educators tend to disseminate major shifts in particular subjects of the curriculum through materials, circulars and conferences. This normally happens under a label such as "The New Home Economics" or the like. *The New Geometry* represents such a launch.

The genesis of the Axis of Evil goes back to the expert discussions leading up to the drafting of the January 2002 State of the Union Address. In the State of the Union Address of January 29 2002 President G.W. Bush introduced the basic version of the Axis of Evil and the list of regimes arrayed along this axis that sponsor terror and threaten America and its friends and allies with weapons of mass destruction. After experts had identified that Iran, Iraq and North Korea effectively can be joined by a straight line, further work at the State Department revealed that the line could be extended further West, in fact all the way to Cuba*. The discovery was fundamental: The capitals of Cuba, Iraq, Iran, North Korea, and for that matter also Syria, form a single line: the Axis of Evil.

The New Geometry, presented in a series of display plates, school maps, black boards and a powerpoint presentation, reveals the elegant simplicity of the discovery of a single explanatory line on the world map. It delves however deep into the New Science of the World by carrying out detailed measurements and calculations, and by exploring relationships within the axis and between the axis and other geographic points. These investigations led to a series of axioms about the nature of the axis and its relationship to other parts of the globe. They cover geometry, mechanics, music, quantitative historic analysis and physics. Essential to the material presented in the teaching aids is that it takes the initial axis premise seriously. Detailed work was undertaken to further expand on the concept. As always, thorough homework pays off and important discoveries are being made which include some of the conclusions developed below:

20 Axioms of the New Geometry:

1. A line through any pair of the four points **H** (Havana), **B** (Baghdad), **T** (Tehran) and **P** (Pyongyang) forms the axis of evil.

* US Under Secretary of State, John Bolton declared in May 2002 that further nations could be grouped with other so-called "rogue states" - Iraq, Iran and North Korea. See BBC, Monday, 6 May, 2002, 22:40 GMT 23:40 UK, "US expands 'axis of evil'". "Mr. Bolton, speaking to the Heritage Foundation ... singled out Cuba for particular criticism, saying that the country's threat to the US was consistently "underplayed". "(Cuba) has at least a limited offensive biological warfare research and development effort (and has) provided dual-use technology to other rogue states," he said.

2. 135 cities are located on the axis in Cuba, Bahamas, Morocco, Algeria, Libya, Israel (plus Golan), Lebanon, Syria, Iraq, Iran, Afghanistan, China and North Korea.
3. Extrapolation of the axis adds a handful of locations in Mexico and North Korea.
4. Atlantic, Pacific, African and North American continental views produce divergent patterns under orthographic projection.
5. Conical projection obviously produces a curve.
6. The mind sees the axis simultaneously as the diagonal of two different cubes.
7. If a globe fits snugly into a cylindrical hatbox, then the surface of the globe cap cut off by the axis of evil is equal to the surface of the rim of the box delimited by the horizontal projection of the axis onto the box.
8. The Golden Section of the Axis is at Point **B**.
9. Kepler said the earth plays two notes (fa=F for FAMINE and mi=E for MISERY). These notes are associated with points **B** and **T** on the Axis of Evil.
10. Navel of human figure stretched out on axis of evil at point **B**. Point **N** on Achilles-heel circle centered in point **B**
11. Axis of evil historically first real axis
12. The four-point axis creates 69 major global triangles.
13. On a screen interposed between a shape on the axis of evil and the viewer, the shape visible \neq the actual shape on the axis, unless the viewer is located 90° above the shape
14. Hottest segments of axis receive most attention - point **P** recent exception
15. Axis of Evil Mostly in the Dark.
16. Axis of Evil apparently not statistically significant.
17. The Axis is balanced with a counterweight at 30° western longitude.
18. The Axis of Evil is in line with the geocentric Ptolemaic system (this is furthermore confirmed by the fact that the town of Ptolemais in Libya is located on the axis of evil, see axiom 2.).
19. Mirroring of forms on the axis is only possible in a two-dimensional space.
20. The Axis of Evil squares the circle. (*Quod Erat Demonstrandum*).

Charbel Ackermann was born in Switzerland and lives and works in London.

Charbel Ackermann, *The New Geometry*, 2002-3, computer presentation, projected dimension variable, courtesy of the artist

Charbel Ackermann, *The New Geometry (Axis of Evil Mostly in the Dark)*, 2003, ink and inkjet print on paper, 22" x 15", courtesy of the artist