Silos Apocalypse | 1109 | Beatus of Liébana

Ink on parchment. 32 x 43 cm / 16 x 17 in. British Library, London

Early European cartographers were guided as much by theology as by geography, and this map and others that accompany the biblical commentaries of the eighth-century Spanish monk Beatus of Liébana are some of the earliest pictures of the Christian world. The map-maker orientated his world with east at the top and featured in its illustration of Adam and Eve ashamed of their nakedness in the Garden of Eden. The world is divided into four: Asia, Europe and Africa, each of which the Bible relates to one of the three sons of Noah, and to the right, desert terms an uninhabitable continent populated by monsters or Antiparadises. A line in the centre represents the Mediterranean Sea, with the River Nile bending off to the right, and a red line indicates the Red Sea. The text indicates important biblical places, including Babylon and Sodom, as well as major European cities, such as Constantinople, Rome, Taranto and Alexandria. The most important city, Jerusalem, is indicated by a temple with an Islamic-era horseshoe-shaped doorway that reminds the reader that both Spain and Jerusalem had been conquered by Muslims, exposing the Spanish artist to Islamic influence. Focusing the viewer’s eye is the vast ocean that was considered the limit of the habitable Earth.

Hereford Mappa Mundi | c.1300 | Richard of Haldingham

Ink, gilt and pigments on vellum. 165 x 112 cm / 64 x 44 in. Hereford Cathedral, Herefordshire

This renowned mappa mundi uses the basic device – familiar from many modern maps – of looking down on a particular point on the globe from a great distance. At the exact centre of this map is Jerusalem – described in the Bible as being placed by God ‘in the centre of the nations, with countries all around her’ – with the crucifixion shown above it. Around the city lie the three inhabited continents, orientated with east at the top, with grotesque animals and monstrous peoples filling the margins. With illustrations of scenes from ancient and classical history and结实 of Bible stories, the map sets out to provide a visual encyclopedia of the world, details of peoples (known and unknown), animals (real and imaginary) and wonders (natural and artificial). The cartographer presents a unified vision of the world as viewed by medieval Christians in which everything has its proper place and all is within the domain of Providence. But the map’s unity is faulty. It reflects Europeans’ confidence in their knowledge rather than communicating information, reminding us that this is, primarily, a map of a world view, rather than of the world, that leads the reader to a spiritual destination – the Christian heaven – rather than an earthly one.
On 1 September 1939 the Germans invaded Poland, and by the end of the day a map of Europe could not be bought anywhere in the United States. War has potentially drawn interest in geography, but the truly global dimensions of World War II (1939–45) fundamentally changed the look and shape of the world on a map. Much of this was shown by Richard Edes Harrison, an artist who stumbled into mapmaking when a friend at Time magazine asked him to fill in for an absent cartographer in 1935. Harrison subsequently drew dozens of eye-catching maps for Fortune magazine, combining an aerial perspective with an artistic style in order to convey the way that aviation and war had transformed geographical relationships. In 1944 the editors of Fortune captivated an Harrison’s immense popularity by commissioning a world war atlas of sixty-six maps. These richly executed images brought home new geographical truths, here Harrison depicted conventional views of the world by centering the map on the North Pole, thereby demonstrating the proximity of Europe and North America. Harrison adopted this particular view to demonstrate the centrality of land and water in the northern hemisphere, where most of the war took place. World geography would never look the same again.

The New Urban World | 2010 | Paul Scruton

The megacity has arrived. By the end of the twenty-first century the vast majority of the world’s population will live in a city environment — and in most of Europe and the Americas they already do. Paul Scruton, a graphic artist for the British newspaper The Guardian, made this map in order not only to show the trend towards city living but also to help readers examine how that trend is distributed around the globe. Countries are arranged broadly geographically as simple circles, sized proportionally depending on their urban population. Colour-coding indicates the percentage of the population living in cities, from the highest (red) to the lowest (bright green). The black circles indicate the world’s twenty-five cities—in 2010—with a population of over 10 million people. Scruton’s map was influenced by some of the great French statistical atlases of the nineteenth century, which use circles and bars of varying sizes scaled to display demographic information on trade, population and disease. According to Scruton’s map, more than half the world’s current cities are in a city, and the rate of urbanization is increasing. Countries such as China and India, however—although nearly half their people live in cities, including some of the largest cities in the world—still have larger rural populations than the rest of the globe.
This map graphically depicts the haves and have-nots of London at the end of the nineteenth century. The largest industrial city in the world – its population grew from almost a million in 1800 to nearly 4,200,000 by 1911 – London suffered extreme inequality within, with many inhabitants in abject poverty. Their neighbourhoods and lifestyles remained hidden from most Londoners until 1889, when Charles Booth, a wealthy philanthropist, hired a team of investigators to collect data on the condition of the city’s poor. The investigators walked the streets of inner London taking notes, which were published in a series of volumes entitled Life and Labour of the People in London (1889–91), accompanied by maps showing the distribution of different socio-economic classes. This map shows the city’s distinctive patchwork of housing with Booth’s descriptive key, which shows how closely the ‘Upper-middle and Upper classes, Wealthy’ live close to the ‘lowest class, Vilious, Semi-criminal’. Much of north London – then a relatively new part of the city – is shown as being occupied by people who were ‘fairly comfortable’, ‘Middle-class’ or ‘Well-to-do’. Booth’s work played an important role in future campaigns for social reform.
Visualizing Facebook Friends | 2010
Paul Butler and Facebook

In the past, maps tend to be all about distance and material objects: not so any more. Paul Butler, an engineering intern at Facebook, used the data concerning how the social networking site’s 500 million users at the time were connected to produce this map, which displays worldwide social connectivity but neither landscapes nor oceans. Even without a terrestrial base map to guide the viewer, Butler’s map shows very clearly the outline of most of the recognizable continents and gives some indication of how entrenched social media are in the lives of most of the world. There are, however, large gaps in this connectivity, as shown by regions in China and Russia, the outlines of which are scarcely recognisable. To create the map, Butler sampled information from about 10 million pairs of friends around the world and then weighted the data based on the distance between the cities in which they lived and the number of friends to which they were connected. The statistical exercise produced this surprisingly accurate-looking map of virtual, rather than material, human social interaction.

Mapping the Brain | 2014
Human Connectome Project

The striking beauty of this map is a by-product of one of the most ambitious cartographic projects ever undertaken: mapping the complexity of the human brain—and thus of what makes us human. This image shows the architecture of the brain using a technique called diffusion-spectrum imaging. This type of magnetic resonance imaging uses the diffusion of water molecules to represent the main neural pathways that link the brain’s 500 or so major regions, illuminating the connection between brain structure and function. The fibres are colour-coded to show the direction of flow. The connectome—the word was only coined in 2004—describes the complete set of neural connections in the human brain. As with other complex networks, it is necessary to understand these connections in order to get an idea of how the network functions in the same way that the exact functioning of the internet remained somewhat of a mystery until it was approximately mapped and its connections understood. This survey maps individual neurons (the nerve centres of the brain) in a network that is currently known only in its broadest form, which is just starting to be mapped with raw data from various forms of brain imaging, the landscape of our inner world and of our consciousness.