## **The Submerged Schism**

It just needed someone to say "BOOM". The most sensational and strident discovery of modern science – "because by now it really is a discovery, and not just a theory" – is that the entire universe comes from a single immense explosion that took place 14 billion years ago. We've done it. If we still don't know too well where we're going, at least we know quite precisely where we come from.

Perhaps anticipated by some ancient Chinese blender of powders or by a German monk in the 1300's while he mixed saltpetre, carbon and sulphur, the solution of the origin of the World is everyone's triumph, because unlike other illuminating conquests of knowledge, it has never been claimed by anyone. Certainly, its paternity was not claimed first by the spine-chilling author of "Eureka", Edgar Allan Poe, nor by Abbot Lemaître, the meteorologist Friedman or the physicist Gamow, and least of all by the inevitable Einstein, although the astrophysicist Fred Hoyle gave a not indifferent contribution when he openly derided the great explosion as a "silly idea", then likening it to dancer jumping out of a cake during a birthday party. He objected that "in physics and thermodynamics, an explosion is always a consequence, never a cause", and ironically called this "joke" the "big bang".

And so "Big Bang" it was. The cosmological explanation supported with few exceptions by tens of thousands of professional astronomers calls for *infinite energy and density, originally without constituting elements, exploding instantaneously from nothing in the form of a point without*  *place or dimensions*. In other words, the simultaneous and transcendental creation of time, space and matter accomplished with "superluminal" propagation in the vicinity of the "zero instant".

The two fundamental and (not in the least) independent proofs of this blessed apparition are the systematic redshift of external galaxies, and the existence of a weak but widespread radio fog that envelops us and emits photons in the extreme infrared section of the spectrum, like matter at the very low temperature of 2.7°K. Which appears on the one hand to be distributed homogeneously in all directions of the heavens, but which is detected with surface antennas and with equipment orbiting the Earth, very close to our local system and very distant from the background of the universe that is allegedly being measured. This "bath" of microwaves is attributed with a pseudo-Doppler shift of z = 1.00, which supposedly corresponds to the "the fossilized residue of the fireball", a sort of deep-frozen holy shroud of Creation that almost instantaneously transformed infinite quantities into quantized quantities.

To these fundamental proofs we must add two "exotic" transparent entities to the electromagnetic spectrum: a vast and ubiquitous "dark matter" necessary for the condensation of stars and galaxies, and a mysterious form of energy, also "dark", capable of imparting even further acceleration to the substratum of measurement, and necessary to resolve the inconsistencies of the redshifts found.

So we've made it. It leads us to the spectacular consequence that the immense universe is all wrapped up and confined within a region that 14 billion years ago had the dimensions of the diameter of a proton, and that the astronomers of Planet Earth (and of any other worlds there might be)

conduct their deep explorations from the outer edge of a gigantic funnel that little by little shrinks in size and then terminates, objectively, in nothing.

Take it or leave it. But if you want to follow a career in astrophysics or particle physics, turning your passion into a profession, YOU HAVE TO TAKE IT, and have yourself accelerated at 72 km/sec per megaparsec in a space with a geometry that is almost entirely governed by dark and instable entities. The creed against which no appeals can be made declares that "there was a superluminal Big Bang", that expanding space which dilates "distances" exists, that there is radiation at 2.7°K "of a fossil nature", and that an "exotic and elusive" branch of physics that still awaits discovery imposes its predominance over astronomical observations, making them virtually irrelevant.

And so we could say either that God created the dice that then play at being God, or that the mystery revealed by cosmologists to their sponsors is based on arbitrary extrapolations.

But the open secret of professional astronomy is that objects with a high redshift show themselves to be physically associated in the universe with objects with low redshift, and that this "secret", accessible even as early as the middle of the last century, has become so evident and overwhelming as to seriously threaten the roots of the whole of cosmology (i.e. the relationship between redshift and the distances and speeds of the galaxies scattered in deep space).

To suppress this contrary and increasingly blatant evidence (cf. "Catalogue of Discordant Redshift Associations" H. Arp, Apeiron 2003), the American establishment has made every possible effort, at times invoking the probability of a prospective overlap (in some cases even less than one out of a billion), or at others obscuring bridges, filaments of matter and connection arms between objects with very different redshifts by the modulation of contrast in photographic images. If some team of operators with the Hubble Telescope feels personally offended or professionally insulted by these affirmations, there are thousands of researchers (and among these numerous professional astronomers) ready to demonstrate that *precisely from the analysis of the same images released by the NASA and intended to prove the absence of any physical link whatsoever between quasars and galaxies, it is possible to detect the luminous filaments that connect them (e.g. NGC 4319 – QSO Mrk 205, HST Heritage Team).* 

So if quasars are "secretly" associated with active galaxies, the most urgent question should not be the immediate re-examination of the conventional interpretation of redshifts (which is an automatic consequence), but much rather: *why hide bridges and filaments*?

The answer is obvious, even if awesome, because the falsification of Hubble's relation in terms of speed and distance would instantly eliminate the expansion of the universe, "fossil" radiation, the Big Bang, inflation and "dark matter", while cosmology departments would find themselves forced to concede that the greatly celebrated origin of the World is founded on inadequate physics and on purely imaginary extrapolations. The General Theory of Relativity itself, the operative instrument used to represent cosmic structure, would be affected, and "space-time", deprived of any objective existence and reduced to the

level of a geometrical similitude, would compromise the entire ""physics of black holes", a path that even Einstein himself preferred not to follow. Awesome, certainly. And at least in immediate terms, catastrophic for the entire world of academic science. Increasingly costly and powerful particle accelerators, designed and built with the explicit aim of "worming out the dark matter and energy particles in action just after the Big Bang", would be left without their primary objectives, with the effect of dragging "Big Science" into a sort of limbo halfway between the year 1000 and the year zero. Certainly.

But even more awesome is this: Is there a strong enough cosmological reason in this world to reconvert funds already assigned, and that precisely for this reason should be discussed anew? "Perhaps Arp is right", Italian astronomer Massimo Capaccioli has declared, "but in a hundred, or in a thousand years."

Alberto Bolognesi (February 2006)