

The Hot Quark Soup of Wilderness

a sermon preached on the
1st Sunday in Lent

Sunday 21 February 2010
at

St Luke's in the City, Christchurch
by Fr David Moore
parish priest

Lection: Deuteronomy 26:1-11, Romans 10:8b-13, Luke 4:1-13

A meeting of scientists last Monday at the Brookhaven National Laboratory on Long Island NY released a media statement. ¹ They declared that in Brookhaven's "Relativistic Heavy Ion Collider", known as the RHIC, a record-breaking temperature of four trillion degrees had been created – this being 250,000 hotter than the core of our sun! This was accomplished by smashing together heavy gold ions at almost the speed of light. The purpose of this mind-numbing experiment was to create the conditions which existed a few micro seconds after the Big Bang – because at this temperature neutrons and protons fuse into what scientists call a "Hot Quark Soup". Protons and neutrons, we recall from high school science, are the stuff from which everything in the universe is made – from individual atoms to stars, from planets to people. Wednesday's Imposition of Ashes rite comes to mind: "Remember that you are dust, and to dust you shall return."

The RHIC is a smaller version of the Large Hadron Collider (LHC), the 42 kilometre circumference particle accelerator under the Swiss-French border. The LHC, if it can be made to work, will collide heavy nuclei at much higher energies than the smaller Brookhaven experiment, predicted to be in the order of 3.5 trillion electron volts. The LHC, we may recall, hit the news in September of 2008. After 15 years construction and with about US\$9 billion spent on it, the LHC broke down just moments after its first 'test drive'. A physics experiment costing that much and taking that long to construct is bound to excite a wide range of opinion. And some have predicted that if the LHC does actually produce its Holy Grail, the as-yet theoretical particle, the famous 'Higgs Boson', then life as we know it could actually end. This is alleged on the grounds that creating the conditions of the moment of the Big Bang might cause the formation of a Black Hole, which could swallow the earth and the whole universe! The Higgs Boson, predicted by quantum physicists but never actually observed, is regarded as the particle that reigned during the first trillionth of a second of the Big Bang. The Higgs is apparently responsible for imbuing other elementary particles with mass. So creating one in a particle accelerator is regarded as the key to understanding the origin of the universe - because of which some have called the Higgs Boson the "God particle".

In a curious twist of physics, last year a couple of distinguished physicists even predicted that the LHC is being sabotaged by its own future. "[God] rather hates Higgs particles," they wrote, "and attempts to avoid them." ² Their idea is that the particle might be so abhorrent to nature that its creation would ripple backward through time and stop the collider before it could make one – like a time traveller who goes back in time to kill his grandfather!

Well, you have to admire quantum physicists, even if most of us have no chance of ever understanding what they're saying, nor their mind-numbingly expensive experiments. For in some respects the ancient human

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"New Findings on Hot Quark Soup Produced at RHIC: Scientists present latest findings from heavy ion collisions at APS meeting Feb. 15", Brookhaven National Laboratory, http://www.bnl.gov/today/story.asp?ITEM_NO=1595 (cited on 20/2/10)

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Dennis Overbye, "The Collider, the Particle and a Theory About Fate", *New York Times*, 13 October 2009, http://www.nytimes.com/2009/10/13/science/space/13lhc.html?pagewanted=2&_r=1 (cited on 20/2/10)

quest for meaning, and the necessary imagination required for the quest, which used to be the domain of religion, has been taken up in our time by physicists and other physical scientists. The search for the elementary particles, which offer the key to understanding the cosmos, requires a brave imagination. Neils Bohr, one of the founders of quantum theory, is said to have told a younger colleague: “We are all agreed that your theory is crazy. The question that divides us is whether it is crazy enough to have a chance of being correct.”³

Well, the theory that God becomes conscious - that is to say, comes to completion - by incarnating God-self in human flesh is, without doubt, a crazy theory! But is it crazy enough to have a chance of being correct?

According to the evangelist the moment Jesus is baptised in the Jordan by John, the Spirit of God led him into the wilderness to be tested by the devil.⁴ The conditions in the wilderness for the human soul are like the conditions for the elementary particle in a high-speed collider – speed and temperature are analogous to the fundamental forces in the human psyche. Under primal conditions, the conditions which existed in the first moments of a human life, everything is fused by the fundamental forces into that which is the primary reality. It is this primary reality in the human psyche which gives us the necessary clue to the meaning and purpose of our life. Understanding this is both the necessary key which opens the doors of daily decision-making and communal life, as well as the goal, or end (*τελος telos*) to which life is moving under the influence of the Divine Mystery.

This is what Jesus seems to experience in the wilderness, the desert. Under these extreme conditions his persona as Messiah is fused in the hot quark soup of wilderness, revealing that which lies deep within himself – imaged Biblically as the will to control the cosmos according to his ego needs (‘You can have all the bread you want!’); the will to have power over others (‘You can rule the world!’); and the will to misuse his Divinity (‘You can do whatever you like and God will rescue you!’)⁵ And it is this absolutely vital self-knowledge which enables Jesus to emerge from the wilderness as the truly human one – no longer controlled by this primal inner reality because he has faced up to it, has integrated it into consciousness.

Presumably this is why the lectionary always gives us this story on the first Sunday in Lent. Set out before *us* also is the task of coming to consciousness. We too are called by the Spirit into the extreme conditions, the hot quark soup at the core of our being, which will reveal to us the mystery of our being, our very own ‘God particle’ – and thus liberate us to emerge as more fully human, no longer controlled by the destructive forces of which we are unaware.

We probably all agree that going into the wilderness to be so tested is crazy – and of course we fear the God particle’s potential to annihilate us, to overwhelm us. Certainly, only those who are called by the Spirit, those strong enough to contain the collisions, ought venture into the wilderness. Yes, being thus fused in the hot quark soup of wilderness in the soul is crazy - but is it crazy enough to have a chance of being the way to becoming fully human ones?

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³ Dennis Overbye

⁴ Luke 4:1-2

⁵ Luke 4:3, 5-7, 9-11