

Improving the neighbourhood

The death of a nearby star system comes as a relief — and a warning.

Arthur C. Clarke

At last, after feats of information processing that taxed our resources to the limit, we have solved the long-standing mystery of the Double Nova. Even now, we have interpreted only a small fraction of the radio and optical messages from the culture that perished so spectacularly, but the main facts — astonishing though they are — seem beyond dispute.

Our late neighbours evolved on a world much like our own planet, at such a distance from its sun that water was normally liquid. After a long period of barbarism, they began to develop technologies using readily available materials and sources of energy. Their first machines — like ours — depended on chemical reactions involving the elements hydrogen, carbon and oxygen.

Inevitably, they constructed vehicles for moving on land and sea, as well as through the atmosphere and out into space. After discovering electricity, they quickly developed telecommunications devices, including the radio transmitters that first alerted us to their existence. Although the moving images these provided revealed their appearance and behaviour, most of our understanding of their history and eventual fate has been derived from the complex symbols that they used to record information.

Shortly before the end, they encountered an energy crisis, partly triggered by their enormous physical size and violent activity. For a while, the widespread use of uranium fission and hydrogen fusion postponed the inevitable. Then, driven by necessity, they made desperate attempts to find superior alternatives. After several false starts, involving low-temperature nuclear reactions of scientific interest but no practical value, they succeeded in tapping the quantum fluctuations that occur at the very foundations of space-time. This gave them access to a virtually infinite source of energy.

What happened next is still a matter of conjecture. It may have been an industrial accident, or an attempt by one of their many competing organizations to gain advantage over another. In any event, by mishandling the ultimate forces of the Universe, they triggered a cataclysm which detonated their own planet — and, very shortly afterwards, its single large moon.

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countless episodes of violence, against their own species and the numerous others that occupied their planet. Whether they would have made the necessary transition — as we did, ages ago — from carbon- to germanium-based consciousness, has been the subject of much debate. It is quite surprising what they were able to achieve, as massive individual entities exchanging information

at a pitifully low data rate — often by very short-range vibrations in their atmosphere!

They were apparently on the verge of developing the necessary technology that would have allowed them to abandon their clumsy, chemically fuelled bodies and thus achieve multiple connectivity: had they succeeded, they might well have been a serious danger to all the civilizations of our Local Cluster.

Let us ensure that such a situation never arises again. ■

Dedicated to Drs Pons and Fleischmann, Nobel laureates of the twenty-first century.

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Sir Arthur C. Clarke is chancellor of the International Space University and the University of Moratuwa, Sri Lanka. He is the author of 2001: A Space Odyssey and many other novels and stories, and was nominated for the Nobel Peace Prize for inventing the communications satellite. His latest book is Greetings, Carbon-Based Biped! He lives in Sri Lanka.