

Editorial

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We would like every issue of *Resonance* to leave most readers with the feeling that they have learnt something new. Rest assured that this is true of most editorial board members, who, are, after all, specialists in one area and laymen in most others. None of us could figure out why an article with an engineering theme like “Aircraft Detectors, Trap Triggers, and Combination Locks” was being processed by a biologist. Read this piece and the one on ant agriculture, and you will never again brandish a broom or insecticide spray in quite the same mood, even if you have to do it.

The humble earthen pot and drinking glass are examples of ceramics and, like insects, often taken for granted. Our series on Ceramics tells you, (and us!) what a range of materials and properties are contained in this single word. One truly amazing one is superconductivity. One expert described the first ceramic superconductors as looking like black tooth powder. Yet electrons can flow in them without resistance at temperatures far higher than for nice shiny metals like aluminium.

Our person perhaps, superperson of the month is Henri Poincaré, who has lent his name to any number of concepts in mathematics and physics. A very incomplete list would consist of a conjecture, an index, a sphere, quite a few groups, a section... . At the present time, mathematics and physics are regarded as two distinct though adjacent cultures and other disciplines are even more remote. What is one to make of a mathematician trained as a mining engineer who attacked relativity, astronomy, the psychology of creativity, and the philosophy of science, all with the same enthusiasm? Perhaps we should also marvel at the times when the Swedish king’s birthday could be celebrated by awarding a prize for proving uniform convergence of a series, and the French winner was promptly decorated with a high civilian award (the Legion of Honor) of his own country. In fact, many outstanding French scientists passed, like Poincaré, through the great engineering school – the Ecole Polytechnique. Food for thought...



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