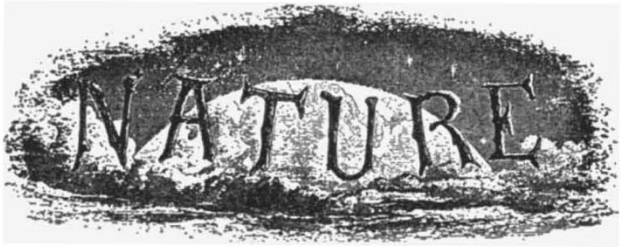
nomics will work out, there is nothing that can be called a scientific point of view.

Even the starkest issues usually turn out to be riddled with subtleties of this kind. Even military research is not an issue of black and white, for is it not entirely proper to consider national defence a kind of social duty? Or may it not at least be proper to consider the attainment of a condition of preparedness a praiseworthy goal? And what is to be said about those who have been working in the past few decades—pointlessly, perhaps—on the development of techniques for defending people against fallout? Would Dr Siekevitz decline to ask them to meetings, or would he ask for a standing ovation on their behalf, and sit them in the front row? These are also teasing questions.

100 Years Ago



The subject of Spontaneous Generation is undoubtedly *the* question of the meeting of the British Association for 1870. The title of the paper by Professor Huxley which headed yesterday's list in the department of Zoology and Botany, did not appear to bear directly upon it, and yet it was generally understood that it would reopen the subject. The President's discourse, for he had scarcely a note before him, was a popular account of the mode of development and form of those minute structures which the microscope reveals in such prodigious numbers in infusions containing organic matter, *Penicillium*, *Torula*, *Bacterium*, and *Vibrio*. He adduced arguments in favour of the theory that these various bodies are not distinct organisms, but are different modes of development of the same substance, and a more admirable and luminous exposition, it was generally admitted, has seldom been delivered. In the course of his remarks, Prof. Huxley took occasion to explain the difference between the "Brownian" motion of the molecules of inorganic matter, and the vital motions of living matter, and expressed his conviction that the motions observed by Dr. Bastian in the infusions which had been subjected to long-continued high temperatures, were referable to the former and not to the latter cause. During the discussion which followed, Dr. Bastian entered the room, but when called on by the president of the section, preferred deferring his reply till the following day. This morning Dr. Bastian gave an account of his experiments on the contents of hermetically sealed cases of preserved meats, with which the readers of NATURE are already familiar, and reiterated his conclusion that the facts he had elicited were such as to throw on the Biogenists the burden of proof that life did not really, as was apparently the case, originate *de novo* from lifeless materials. Professor Huxley was not able to be present at this discussion, but a somewhat sharp passage of arms took place between Dr. Bastian and Professor Tyndall, each maintaining his well-known view respecting the atmospheric germ theory. The reply of Prof. Tyndall, "Prof. Huxley's lieutenant," as he was described by the president of the section, was not generally accepted as conclusive, in consequence of his apparently not having made himself thoroughly acquainted with the facts of the series of experiments performed by Dr. Bastian.

From Nature, **2**, 438, *September* 29, 1870.

OLD WORLD

SCIENCE RESEARCH COUNCIL

Signs of Stringency

THE annual report of the Science Research Council for the year ending on March 31, 1970 (HMSO, 8*s* 6*d*), suggests that the council has now settled down to a steady battle with the British Government on the availability of funds. In a review of the past five years, the council points out that there has in the past few years been a "sharp fall" in the rate at which the budget has been growing. Over the period of five years, the annual budget in real terms has increased by 40 per cent, from just under £35 million in 1965–66 to £46 million in the year just ended. During the same period, however, the university population has also grown rapidly and there is clearly now a danger that the council will be unable to meet the growing needs of university research and its commitments to international projects such as CERN and ELDO.

So far, the council has dealt with the strain on its system by cutting back on capital projects. Because of devaluation and the rapid build-up of ESRO in the mid-sixties, subscriptions to international organizations, which cost £12 million in 1969–70, have accounted for a proportion of the budget which has increased from 18·5 per cent to 25·9 per cent in the past five years. The proportion of the budget spent on research grants has been constant at about 20 per cent, while the policy of linking postgraduate awards to a fixed percentage (16 per cent) of those graduating from British universities in science and technology has made it possible to stabilize the cost of postgraduate awards at 12·1 per cent of the total budget. Over the five years, the most dramatic change in the pattern of the council's spending has been the reduction from 16·2 per cent to 6·6 per cent in the section of the budget spent on research machinery such as the particle accelerator. Although this is in part a consequence of the council's deliberate decision to cut back on spending on nuclear physics (reaffirmed in the report), the council also says that if "the rate of increase of funds available to the council continues to be restricted" there is a danger that capital schemes "required to restore the proper long term balance in the council's expenditure" will have to be postponed. Plainly some of the council's much admired chickens are now coming home to roost, for the policy of selectivity and concentration by means of which attempts are being made to build up centres of research at British universities is creating a need for new and expensive facilities.

As yet, there is no sign that the council doubts the wisdom of its policy of selectivity and concentration. One of the objectives is to select areas of research for special mention when there is a promise of valuable rewards, either intellectual or economic. A second is to choose university departments at which concentrated work is likely to be unusually valuable. One feature of this policy has been the council's decision to give priority to astronomy and to backpedal in its support for nuclear physics. In the current report, the council goes out of its way to reaffirm its belief in the present system for supporting university research in which funds are channelled to university departments by both the research councils and the University Grants Committee. The report says that the Council for Scien-