

## Introduction

‘Small beginnings in a disturbed world’

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As the British Society for the History of Science’s president during its fiftieth year, it gives me the greatest pleasure to introduce this anniversary issue of the Journal. For some readers there will be a special poignancy in recalling the vision and energy of the Society’s founding fathers who, believing that the history of science had a strategic role to play both as a humanizing force and as an integral part of the culture of science, turned their belief into action. Many justifications have been and will continue to be given for the importance of our subject. Prominent among them when the Society was launched in 1947 was that the history of science would underpin claims for the inherent progressiveness and universality of scientific knowledge. In his presidential address, delivered in May 1948, the Society’s first president, Charles Singer, also drew a parallel between the humanism of the Renaissance and a new humanism represented by the cultural possibilities of this history of science: both had had ‘small beginnings in a disturbed world’.

Something of that disturbed world in which the BSHS came to life is described by Geoffrey Cantor in a recent presidential address that graces this issue. He shows how Singer’s commitment to the internationality of science was deeply informed by repugnance towards the anti-Semitism of a Nazi regime that had turned science itself into a tribal matter. Having played a major role in helping refugees fleeing from Nazi persecution, and having experienced the devastation of war, Singer’s abiding hope was that a *British* Society for the History of Science could make a distinctive contribution to international peace and stability. With this in view, links with the International Academy were to be strengthened in the conviction that ‘the development of science itself cannot be said to be distinctive of any people.’ In his presidential address Singer insisted that ‘science is...of all studies the most truly humane, the most truly international’.

There were of course many cultural responses to a world that had been ravaged by war. British readers will know that, in recent months, fiftieth anniversaries have been appearing by the week. From Radio 3 (which in its previous incarnation as the Third Programme had once aspired to bringing a higher culture – Bertrand Russell as well as Beethoven – to the working classes), to Welsh National Opera, to the Edinburgh International Festival, there have been celebrations of cultural initiatives, launched in the late 1940s, in which high hopes were invested in the power of the arts to heal wounds and to stimulate trans-cultural languages of artistic appreciation. Indeed, in a much publicized Fiftieth Anniversary Lecture to launch the 1996 Edinburgh Festival George Steiner invoked

the same disturbed post-Holocaust world in which to set the aspirations of the founders of that self-consciously international institution. Steiner recalled the response of E. M. Forster to the first festival in the summer of 1947, which had not only featured the Vienna Philharmonic under Bruno Walter, but the Schnabel–Szigeti–Fournier–Primrose chamber recitals, in which Forster saw a ‘sun-rise of human mercy and hope after the terrible night of world war’.

Steiner’s ‘Festival Overture’ makes gloomy reading because he broods over the pain experienced today when that new dawn is evoked: ‘the Balkan nightmare, the rekindling of homicidal ethnic, regional, religious hatreds and separatism, from Macedonia to the Basque country, from Ulster to Transylvania, threaten what is left of a pan-European vision’. One of the reasons why his retrospect attracted media attention was his chilling conclusion that the arts had proved impotent in the offensive against tribalism: ‘we now know of the neutrality of the arts and of their performance in the company of barbarism’. Provocatively he confessed to an intuition that ‘minds and sensibilities shaped by aesthetics, by their identification with fictions, by their enchantment with the past (an enchantment which defines a humanistic pedagogy and culture), may be inhibited from any active, concrete involvement in the anguish and demands of the present’. Identification of excellence in the arts with political-social decency was now dubious.

There was, however, another reason why Steiner caught the journalist’s eye. Whereas the arts and humanities had proved effete and divisive, the race to the millennium was now being led by the sciences. In an apotheosis of science, for which he has been criticized for scientism, Steiner sounded a new note, suggesting that the great festivals of the future must make room for the culture of science with its own distinctive aesthetic canons. There was even space for the history of science in his prescription, since science ‘engages criteria of elegance, of beauty, of harmony in mathematics as old as Pythagoras or Plato but now hidden from all who cannot master the languages, dare one say, the poetry of algebra’. In challenging the Edinburgh Festival, now fifty years young, to re-think its priorities, Steiner was being deliberately tendentious. But his sudden enchantment with the sciences, less visible for example in his book *Real Presences*, may begin to sound like that of Singer and Sarton long ago. Sarton’s ‘science is the only aspect of human civilisation which is always progressive; in it there is no backsliding’ might be compared with Steiner’s ‘science is, by very definition, in forward motion’.

Such high-level generalization about the cultural power of the arts and the sciences, whilst challenging in its way, will strike many readers as suspect. Without diminishing the excitement generated by current scientific research and without showing ingratitude for an elevation of the sciences on the cultural map, historians of science, conscious of how their subject has developed during the last fifty years, might just detect an element of anachronism in Steiner’s plea, for might it not be said that the vision of science as universal knowledge and as universal healer has also proved to be of questionable potency in easing a disturbed world? As several authors in this issue hint, the conscientious pursuit of the history of science has done much to embarrass what was once seen as its principal (though not its only) rationale: the celebration of the sciences as inherently progressive instruments of peace and consensus. We have become more sensitive to the role of controversy within the sciences and to the rhetorical aspects of recurring claims that science is unequivocally

the instrument of unity and concord. Addressing the question how the intellectual was to behave under Nazi oppression, and reflecting on the visionary claims of scientists in the late 1930s that the atom would unleash wholly beneficent powers, Bertolt Brecht prophetically glimpsed how far rhetoric and reality might diverge: ‘practically every new invention is greeted with a shout of triumph, which immediately turns into a cry of horror’.

If we have lost the particular form of humanism with which the history of science was associated fifty years ago, the challenge nevertheless remains to articulate its humanizing power in the disturbed world of today. How best to articulate it is a challenge that the Society and its members must keep constantly in view. The ‘small beginnings’ of the BSHS were accompanied by a big and noble theme. That there were problems in developing it was certainly clear to some among the founding fathers who questioned whether historical scholarship had to be wedded to a particular evaluation of what Singer called the product of the scientific mood. Though they disagreed over many points, Herbert Dingle and Benjamin Farrington recognized that a balanced history required that the detrimental as well as the beneficial products of science should be considered. Fifty years later the Society has resources beyond the dreams of its founders, both financial and in terms of the support on which it can draw from specialists in museums and universities. It has much to celebrate in its development, thanks to the loyalty of those, both past and present, who have volunteered so much of their time to maintain its growth and vitality. The history of this journal is itself a reflection of that growth. At the first AGM of the Society, held on 5 May 1947, it was proposed by J. G. Crowther that the Society should publish, not least because ‘a successful journal indicated a successful Society and a successful Society could maintain a successful journal’. And yet for some fifteen years the Society had to make do with the publication of a *Bulletin*, appearing as a supplement to each issue of *Annals of Science*, and consequently limited in scope. When the first number of the Journal was published in 1962, the then president, E. Ashworth Underwood, observed that the preceding arrangement ‘was desired neither by the majority of the Society’s members nor by the distinguished editors of the *Annals*’. In May 1962, the Society’s reserves were £1495 and the membership (which it was hoped the Journal would increase) stood at 186. The subsequent expansion of the membership, and of the Journal to the present four issues a year, the Society’s monograph series and the widely circulated *Newsletter* have all contributed to a visibility and an effort that has been enhanced by the frequency of meetings and conferences, wide-ranging in their scope and reflecting the many different styles of work that have been represented in our field.

But a jubilee is no time for complacency. If we believe that a knowledge of their history gives us a richer understanding of scientific processes, if we also believe that, having come of age as a form of *historical* scholarship, the history of science opens windows on the past that are profoundly illuminating, the task of convincing others that this is so is still a large one to which the Society must continually re-dedicate itself. The humanizing power of our subject may no longer be conceived as it once was, but it remains enormous and we should have the confidence to say so. Forms of scientific education from which references to the role of human imagination and creativity in scientific discovery are omitted leave prospective research scientists ill-prepared for the realities of the rock face. Exposure to the history of science can still correct such misperceptions just as it can also correct anecdotal

histories that trivialize the scientific debates of the past. It can help both arts and science students to understand how controversy may arise in the sciences and thereby correct the common misperception that dissension among experts automatically impugns their expertise. In the context of science education historical case studies can still enrich an understanding of scientific concepts (as basic as the 'molecule') through a consideration of the reasons why a particular conceptual scheme outlived its competitors. It must be of value to students of both the arts and the sciences to appreciate that in the *practice* of the sciences, numerous methods have been employed, rather than some uniquely privileged 'scientific method'. In a previous incarnation of the British National Curriculum for the teaching of science in schools there was a clear recognition that it was instructive for the student to grasp that empirical data are usually susceptible of more than one interpretation and that the appeal, even the content, of an acceptable scientific theory can be shaped by other parameters within society. That there has been ambivalence, even multivalence, in the cultural impact of scientific innovation is another of the lessons that must be reaffirmed. Living, as many of us do, so close to our subject and enthralled by the particular research projects we are privileged to pursue, it is easy to lose sight of the wider claims of the history of science to public attention. During this special year in the Society's history, its members will be striving to raise that public awareness. The extent to which the history of science can be said to have become part of public culture provides the focus of our anniversary conference to be held in Leeds later this year. An exciting programme has already taken shape and we look forward to the stimulus that a critical reappraisal will surely bring.

Finally, it is the privilege of the president to ensure that the many people who have given – and give – so much of their time to the British Society for the History of Science are acknowledged. No society could operate without the dedicated, voluntary labour that is put in by its officers, members of council and other generous individuals. This Society has been particularly lucky to have such individuals working on its behalf over the last fifty years. A glance at the list printed at the end of this anniversary number of the journal eloquently confirms the point. Nor should we forget the many speakers at our meetings, book reviewers, advisors, sub-committees and referees for papers submitted to the Journal. To these, and the many other unsung contributors to the Society's activities, I extend our grateful thanks.