

**The Idea of an Institute for
Advanced Study**
*Some Reflections on
Education, Science and Art*

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The Idea of an Institute for Advanced Study

Some Reflections on Education, Science and Art

Some months ago a new edition¹ of the famous standard work, the *International Encyclopedia of the Social Sciences* appeared. This edition is new in many respects. Not only does it have a new name: *International Encyclopedia of the Social and Behavioral Sciences*, but it also has new editors. The work has grown from the sixteen-volume-one-index edition in 1968² to the current edition consisting of 24 volumes with 16.695 pages, plus two volumes for the 1.486 pages of indices. Many amendments have been made to existing entries and new entries added and it is one of these that I would now like to bring to your attention namely: “Centres for Advanced Study – International/ Interdisciplinary”.

That this lemma has now appeared can be seen as evidence of the impact that the Institutes for Advanced Study have made since 1968. A cynical observer may point out that this entry was commissioned by Neil Smelser, one of the editors but also the director of the Center for Advanced Study in the Behavioral Sciences in Palo Alto, and that it was written by Phil Converse, the previous director. Indeed, another editor might have been less convinced of the necessity of such an entry but, as is often the case with cynical interpretations, this is only half the truth. It is an undeniable fact that over the last thirty years Institutes for Advanced Study have grown considerably in number and importance. Such institutes can now not only be found in the United States, where they were first conceived, but also in

¹ N.J. Smelser and P.B. Baltus (eds.), *International Encyclopedia of the Social and Behavioral Sciences* (26 vols.; Amsterdam etc. 2001).

² D.L. Sills (ed.), *International Encyclopedia of the Social Sciences* (17 vols.; n.p. 1968).

Europe (for example, in Berlin, Uppsala, Budapest, Bucharest and, not least, in Wassenaar) as well as in Asia and Africa. The role of such institutes in the scholarly communities of their countries has become increasingly significant. Indeed, in countries where such institutes exist, academic life is unthinkable without them and in countries where they do not yet exist the desire to establish them is strong. Institutes for Advanced Study have assumed an essential and undisputed place in the world of higher education. They have also acquired a certain prestige, to such an extent that some less scrupulous organisations have seen fit to take on the title without offering the content.

Although it would be interesting to talk about the history of the Institutes for Advanced Study, this is not what I want to do here today. Nevertheless, I will just briefly mention that the first such institute was founded in Princeton, New Jersey, in 1930. This particular institute flourished thanks to three factors: the Bamberger family's wealth and generosity, Abraham Flexner's ingenuity and the anti-Semitism of Adolf Hitler.

Louis Bamberger and his sister Caroline Fuld (*née* Bamberger) made their fortune in the New Jersey retail industry. They wanted to give something back to the 'shopaholic' people of the state that had made them rich. They first considered, as most philanthropists do, something medical, perhaps a medical-school in Newark. So, they got in touch with Abraham Flexner, a typical American educator. Flexner had made a name for himself with his book on the American college system but was even more well-known for the so-called *Flexner Report*, a devastating indictment of the American medical-school system. No wonder the Bambergers turned to him with their plan for a project in the field of medicine. By this time, however, Flexner had moved on to fresher fields. He saw nothing in a medical-school in Newark, as anyone who has ever been there would, probably, find understandable. He had a completely new idea: an Institute of Higher Learning or Advanced Study, not in depressing Newark, but in the peaceful and picturesque town of Princeton. Flexner was able to bring both philanthropists round to his way of thinking. It was evidence of foresight on the Bambergers' part. They showed even more foresight in selling their chain of department stores just before the Wall Street Crash of 1929. If they had not, there probably would never have been an Institute for Advanced Study.

What Flexner envisaged was something different from the Institutes for Advanced Study we see today, which focus exclusively on research and not on teaching. In

principal, Flexner was opposed to such an institute. In November 1922, he had put forward his objections to this approach in a report to the General Education Board, a foundation of the Rockefellers. The Report was entitled, *A Proposal to Establish an American University*. Flexner wrote: "Research institutions, valuable and necessary as they are, cannot alone remedy the difficulty [that graduate schools are in] – first, because relatively few men are most happy and effective if their entire energies are concentrated solely upon research; second, because the number of young men who can be trained in research institutions is necessarily limited [...]. Research institutions cannot [...] take the place of universities where men receive higher training".³

For Flexner, it was important that the institute take only graduates, not undergraduates, who would be far too time-consuming. Graduate students and professors should focus on fundamental research and the faculty must be paid well. (This second point soon resulted in the Institute for Advanced Study being popularly known as the Institute for Advanced Salaries). As it turned out, there would never be any students, not even Ph.D. students as, later, Flexner decided that graduates were also a waste of valuable time. "There are plenty of places where a man can get a degree", he wrote⁴. An Institute for Advanced Study should engage at a higher level. A place, a time and an opportunity for fundamental research: these were the core factors.

The institute was founded in 1930 but it did not open its doors until three years later, in 1933. It was excellent timing. In that year Hitler came to power and the mass emigration of Jews brought many scholars to America. The first to be appointed by Flexner at Princeton was non-other than Albert Einstein, even then already the most renowned scholar of his time. Many more illustrious immigrants would follow.

The Institute has stayed true to its mission. The devotion to pure research has remained, as indeed have the high salaries, even when the Institute began to expand both in scope and size as it introduced visiting fellowships in addition to

³ See E. Regis, *Who Got Einstein's Office? Eccentricity and Genius at the Institute for Advanced Study* (Reading etc. 1987) 14.

⁴ *Ibidem* 28.

the permanent faculty. Flexner's two maxims, "No duties, only opportunities", and "Teach best by not teaching at all" are still upheld. These also apply to the other Institutes for Advanced Study that have since been founded.

Because the Princeton Institute offered very few opportunities for social and behavioural scientists (its School of Social Science was not opened until the late 1960s, and only after overcoming considerable resistance) and because interest in the social sciences increased after the Second World War, a new Institute for Advanced Study, this time focussing especially on the behavioural sciences, was opened in Palo Alto. This institute was to become the model for NIAS and many other institutes. However, as I said earlier, I do not want to give an in-depth history of the Institutes for Advanced Study here today. I would rather talk about something else; something more abstract; something more profound and that is, "The *Idea* of an Institute for Advanced Study".

When using the word 'idea', I am echoing the title of one of the most famous books ever written about higher education. I am, of course, referring to a study by John Henry Newman that first appeared in Dublin in 1852. It was not until 1872 that it was published in its definitive form under the title: *The Idea of a University*. As not everybody may be familiar with the life and work of this Oxford don who was later to become a Cardinal of the Roman Catholic Church, I will first say a few words about the author of this remarkable book.

John Henry Newman was born in London in 1801. His father, a banker, was of Dutch extraction while his mother came from a Huguenot family. Newman entered Oxford as a student when he was only 15 years old and stayed for a considerable time. In 1822 he became a fellow and in 1826 was appointed tutor at Oriel College. In 1828 he became vicar of St. Mary's Church. With John Keble and others he founded the so-called Oxford Movement, which opposed liberalism in religion. He became disenchanted with the Church of England, resigned his post as vicar, became a Roman Catholic and left Oxford to go to Rome. In 1847 he was ordained a priest. Seven years later he was asked to become Rector of the newly established Catholic University in Dublin. It was there that he gave the lectures that were to form the basis for his extremely influential book: *The Idea of a University*.

Newman's book is a most curious work as is apparent from its rather long and complicated title, which reads as follows: *The Idea of a University Defined and Illustrated, I. In Nine Discourses delivered to the Catholics of Dublin; II. In*

Occasional Lectures and Essays Addressed to the Members of the Catholic University.⁵ It is by no means a coherent book. Indeed it is not really a book at all. It consists of a compilation of nine lectures given at the Catholic University of Dublin and a selection of other lectures and papers given on various occasions. It has often been criticized as being “radically flawed by inconsistency and self-contradiction”.⁶ This is true in so far as it is not always easy to follow his line of argument. Moreover, the assumption that theology is a science, and indeed the highest of all, may not be easy for the modern reader to accept. All the same, the main argument is clear and powerfully presented: a university is primarily “a place of teaching universal knowledge”. Its aim is “the diffusion and extension of knowledge”. Its purpose is “to produce more intelligent [...] members of society” by fostering “cultivation of mind”, and “formation [...] of the intellect”.⁷ Newman presents a high ideal of what a university should be: “the high protecting power of all knowledge and science, of fact and principle, of inquiry and discovery, of experiment and speculation”.⁸ He also elaborates his ideal of liberal education: it is the “real cultivation of mind”.⁹ As a result, “A habit of mind is formed which lasts through life, of which the attributes are, freedom, equitableness, calmness, moderation, and wisdom [...]”.¹⁰

There is of course much more to be said about this monumental work, and I shall return to one specific aspect later on. However, one thing is clear. By discussing the ‘idea’ of a university, Newman was able to address some general issues concerning science and education. I hope that by giving my Uhlenbeck Lecture the title of “The Idea of an Institute for Advanced Study”, I can do the same and so present some general reflections on education, science and art. I am not normally in the habit of addressing such big issues, but on this special occasion, which not only marks the end of my term at NIAS as Rector but also the conclusion of more than 35 years of academic life, I hope you will allow me to do so. “Une fois fait pas coutume”, as the French saying goes.

⁵ There are many editions of this book. References in this paper are to the edition by I.T. Ker (Oxford 1976).

⁶ See J.H. Newman, *The Idea of a University* (Oxford 1976) XLII.

⁷ *Ibidem* XLVII-XLVIII.

⁸ *Ibidem* LXX.

⁹ *Ibidem* LVI.

¹⁰ *Ibidem* 96.

Education

The *Oxford English Dictionary* gives various meanings for the word “Education”, including puzzling definitions such as, for example, “the rearing of silkworms”. But the two most familiar ones are “the process of ‘bringing up’ (young persons)” and “the systematic instruction, schooling or training given to the young in preparation for the work of life” [...]. These two elements are present at every stage of education but not always in the same proportions. To begin with, primary education is a matter of basic instruction. The main aim is to teach the child certain elementary skills, of which the most important are reading, writing and arithmetic as well as obtaining some basic knowledge about the world, that is to say some geography and history. The general education of children is, of course, principally a duty for the parents. Just as one has to feed and protect a child one has the duty to impart knowledge and skills as well as instil moral values. Nowadays, however, in virtually all societies, the state also assumes responsibility for the provision of schooling for all its subjects, regardless of the financial or social background of the parents. Indeed, whether they like it or not, parents are obliged by the state to send their children to school and they are punished if they fail to comply.

The reason for state intervention in the domain of primary education is both economic and political. In modern societies, economies can only flourish if the people have at least some level of schooling. The modern state, which is based on the principle of citizenship, cannot function if its citizens do not have a minimum of education. This explains why the colonial powers often set up educational facilities in their overseas possessions, albeit at a minimal level. James Currie, who was appointed Director of Education in the Sudan in 1900, summarised the aims of his educational policy in 1901 as: “The creation of a competent artisan class [...]; The diffusion among the masses of the people of education sufficient to enable them to understand the merest elements of the machinery of government [...] and; The creation of a small native administrative class”.¹¹

Secondary education did not become of interest to the state until much later. The usefulness and purpose of primary education was obvious, but this was not so

¹¹ Quoted in P. Gifford and W.R. Louis (eds.), *France and Britain in Africa. Imperial Rivalry and Colonial Rule* (New Haven 1971) 687.

apparent for secondary education. Indeed, some denied that secondary education had any purpose at all. The famous English historian Sir Lewis Namier once remarked: “Elementary education keeps children off the streets; university education provides a place for people like me. As for secondary education, I can think of no reason for it at all”.¹² I cannot agree with Sir Lewis, not only because secondary education provided a place of work for people like my wife, as it did for me a long time ago, but also because I believe that secondary education is the most important of all the types of schooling. While elementary education is necessary to be able to operate in society, and university education is indispensable for the training of scientists and qualified professionals, the ‘liberal education’ Newman spoke of is essentially acquired at secondary schools. This is certainly true for the rather elite form of secondary education (exemplified by the grammar schools and gymnasia) that was the norm in Europe until the 1960s. When, in 1878, Mark Twain travelled to Germany, and visited Heidelberg among other places, he wrote that the German student “has spent nine years in the gymnasium, under a system which allowed him no freedom, but vigorously compelled him to work like a slave. Consequently, he has left the gymnasium with an education which is so extensive and complete, that the most a university can do for it is to perfect some of its profounder specialities”.¹³

The German gymnasium was the model for the Dutch gymnasium. The backbone of this type of secondary education was the study of the humanities (or ‘*humaniora*’), that is to say of Greek and Latin, but also modern languages, history, mathematics as well as, in most cases, religion. This type of education was based on an ideological consensus that was characterised by two elements: firstly, the idea that there is a continuous thread linking modern civilization with the past and secondly, that European civilization is virtually synonymous with civilization in general. According to this way of thinking, there is a direct line running back through time, from the present to the Renaissance and from the Renaissance to Rome and Greece, and so on going right back to the ancient civilizations of Egypt and the Near East. Civilization originated in the Mediterranean world; not just European or Western Civilization but civilization *tout court*.

¹² Quoted in R. Cole, *A.J.P. Taylor. The Traitor within the Gates* (London 1993) 243 note 22.

¹³ Quoted in J. Mittelstrass, ‘Unity of Research and Teaching in German Universities: Reality or Wishful Thinking?’ in *New Horizons in Research and Higher Education: Trends, Constraints and Opportunities* (Washington 1996) 92.

The most pertinent, most passionate and, possibly, also the most arrogant formulation of this belief – for a belief is what it was – is to be found in Newman’s *Idea of a University*, from which I will quote the following lines: “I am not denying of course the civilization of the Chinese, for instance, though it be not our civilization; but it is a huge, stationary, unattractive, morose civilization. Nor do I deny a civilization to the Hindoos, nor to the ancient Mexicans, nor to the Saracens, nor (in a certain sense) to the Turks; but each of these races has its own civilization, as separate from one another as from ours. I do not see how they can be all brought under one idea. Each stands by itself, as if the other were not; each is local; many of them are temporary; none of them will bear a comparison with the Society and the Civilization which I have described as alone having a claim to those names, and on which I am going to dwell. [...] Looking, then, at the countries which surround the Mediterranean Sea as a whole, I see them to be, from time immemorial, the seat of an association of intellect and mind, such as to deserve to be called the Intellect and the Mind of the Human Kind. [...] Considering, then, the characteristics of this great civilized Society, which I have already insisted on, I think it has a claim to be considered as the representative Society and Civilization of the human race, as its perfect result and limit, in fact; those portions of the race which do not coalesce with it being left to stand by themselves as anomalies, unaccountable indeed, but for that very reason not interfering with what on the contrary has been turned to account and has grown into a whole. I call then this commonwealth pre-eminently and emphatically Human Society, and its intellect the Human Mind, and its decisions the sense of mankind, and its disciplined and cultivated state Civilization in the abstract, and the territory on which it lies the *orbis terrarum*, or the World”.¹⁴

Newman formulated these ideas extremely forcefully but they were held by virtually the whole Western intellectual world. However, the situation Newman described changed dramatically and, as early as 1964, this produced, what was known as, the *Crisis in the Humanities*. In a book of the same title, the prominent English historian J.H. Plumb wrote: “A hundred, fifty, even twenty years ago, a tradition of culture, based on the Classics, on Scripture, on History and Literature, bound the governing classes together and projected the image of a gentleman. [...] These subjects – History, Classics, Literature, and Divinity – were, with

¹⁴ Newman, *Idea*, 213-4.

Mathematics, the core of the educational system and were believed to have peculiar virtues in producing politicians, civil servants, Imperial administrators and legislators. In them the arcane wisdom of the Establishment was preserved and handed down from generation to generation. Alas, the rising tide of scientific and industrial societies, combined with the battering of two World Wars, has shattered the confidence of humanists in their capacity to lead or to instruct".¹⁵

Thus, the two foundations of traditional humanistic education have been shaken. First, the sense of an unbroken line connecting us with the past has disappeared. If history is popular at all today, this is not, as it used to be, to study books that highlight how we relate to our 'forefathers' but rather to read how very different, how strange the people in the past were. The success of books such as *Montaillou* by Emmanuel Le Roy Ladurie or Simon Schama's *The Embarrassment of Riches* illustrates just this. The past has become a collection of curiosities and the historian has turned into an anthropologist.

Secondly, the belief in the superiority of Western civilization has diminished, if not vanished entirely (although it has probably disappeared more from public discourse than from private convictions). The reason for this is not so much the rise or the increased appreciation of other civilizations. Few of us envy life under the Ayatollahs or the hectic, overcrowded Japanese way of life. This change in attitude is more related to the steady decline of European influence worldwide.

If this analysis is correct it leads us to two questions. Firstly, is this development to be regretted? Secondly, can something be done to remedy it? My answer to both questions is: "Yes". As to the first question, the reason for regret is not so much ideological as practical. In order to be brief, I will borrow E.D. Hirsch's succinct words on the subject. Hirsch argued that "an absolute requirement of high literacy in a nation is that its citizens must share a broad range of diverse background knowledge". He concluded "that broad humanistic studies at *every stage* of education and particularly in early education are highly utilitarian as well as intrinsically valuable".¹⁶ I agree wholeheartedly with this view.

¹⁵ J.H. Plumb (ed.), *Crisis in the Humanities* (Harmondsworth 1964) 7.

¹⁶ E.D. Hirsch, 'About Cultural Literacy' in H.C. Cassee and D.J. van de Kaa (eds.), *Cultureel alfabetisme in Nederland* (Amsterdam/Lisse 1989) 25 and 32.

As to the second question: what can be done to remedy the problem, the answer is not so simple. A return to the old situation is not an option. We should not forget that the liberal education of Newman or the humanistic education of Plumb was enjoyed by only a very small group of people: an intellectual elite restricted, more or less, to the social elite. Since the widespread democratisation that has occurred since the 1960s such an elite is no longer acceptable. Moreover, nearly all European societies have now become what America has always been, right from the beginning: multicultural and multiracial. This implies that modern concepts of civilization will have to be more ecumenical and more multicultural than they used to be. What is necessary, then, is the development of a new ideological consensus about what is worth knowing and, subsequently, to teach that to students either at secondary school, as was the European tradition, or at college as is the tradition in America.

This brings me to the third level of education, the one I know best from personal experience and that is university education. Although there are many important differences between the various national traditions in university education, it is fair to say that the most fundamental distinction is seen when comparing the European and the American university. This has much to do with the differences in the respective societies. In Europe, university education and even secondary education was always limited to a small segment of society. Moral values and cultural knowledge were acquired at school, at home and in church. As Mark Twain observed, when he came to Europe, by the time a student entered university his general education was already well established. In America, which was a more egalitarian society without a traditional aristocracy formed by endless influxes of penniless immigrants, the idea that a liberal education could be provided by the family was absurd. The College of Arts and Sciences was set up in order to provide such an education. Research was also introduced at a very early stage. Less than a decade after Newman published his *Idea of a University*, the first Ph.D. degree was awarded in America, at Yale University, and the first research student arrived on the scene in the 1890s, almost a century before making an appearance in the Netherlands.¹⁷

There can be no doubt that the American model has been the most successful. It

¹⁷ S. Rothblatt, 'The Idea of the Idea of a University and its Antithesis' in *Conversazione* (Seminar on the Sociology of Culture; La Trobe University, Victoria, Australia 1989) 8.

combines higher education for the many with having the best research universities in the world. The American model has been so successful that it is now imitated virtually all over the world. The reason why the European system failed is that it did not adjust to the two main developments in modern society: social emancipation and the economic need for an ever better-educated population. These two developments have created the need for mass university education.

As I have argued for a long time, I consider the transformation of the European university to be a structural change that should be welcomed not regretted.¹⁸ We must accept the consequences that this will bring a greater diversification of the academic landscape. Inevitably with the increase in the number of degrees and the merging of university and vocational higher education institutes, the degree itself will become less important than the place where it was awarded. The distinction between research and teaching universities, widely accepted in America, will inevitably come to Europe too.

Science

It is here that I would like to turn to the second topic of my lecture, science. Nowadays, it seems quite natural that universities are places where teaching and research go hand in hand. This, however, is a fairly recent phenomenon. The history of the universities reveals that in the beginning the universities were first and foremost institutions for professional training. Willem Otterspeer's magisterial history of the University of Leiden, demonstrates that this venerable place of learning was not a centre for research but for education.¹⁹ In the eighteenth century, science was more a matter for learned societies and academies than for the universities. The idea that the university could play a role in this and that teaching and research should go together only emerged later, in the nineteenth century. The man who first introduced this idea was the German scholar, statesman and diplomat Wilhelm von Humboldt.

¹⁸ See H.L. Wesseling. 'De oude universiteit en de nieuwe' in *Hollands Maandblad* (1986), reprinted in H.L. Wesseling, *Oorlog lost nooit iets op. Opstellen over Europese geschiedenis* (Amsterdam 1993) 289-300.

¹⁹ See W. Otterspeer, *Groepsportret met dame* (Vols. I and II; Amsterdam 2000 and 2002).

Wilhelm von Humboldt (1767-1835), brother of the famous explorer and naturalist Alexander von Humboldt, was a multi-faceted man. He was a philologist, a historian and a philosopher but also a statesman, civil servant and diplomat. In 1809, he joined the Prussian civil service and, as Head of the Department of Education, he founded the first University of Berlin. He was a liberal and a reformer and believed in academic freedom and autonomy for the universities. In Humboldt's view, the university was a place where scholars and students could dedicate themselves to research. University lecturers should not merely be passive 'scholars' but must take an active part in research. However, according to Charles McClelland, Humboldt's idea of *Wissenschaft* was radically different from, later, positivist, concepts. Humboldt's view was that "*Wissenschaft* and further discoveries emanating from it were the instrument, not the goal, of the scholar. The full development of the personality and of a supple, wide-ranging habit of clear, original thinking was the goal".²⁰ In other words, *Wissenschaft* should contribute to *Bildung*. In this respect, there was not that much difference between Humboldt's and Newman's ideas of 'liberal education'. The main difference was that in England, university research was not encouraged until about the 1860s. Almost half a century after Humboldt's reforms were introduced in Prussia, Newman was still arguing that the object of a university "is the diffusion and extension of knowledge rather than the advancement" and, "If its object was scientific and philosophical discovery, I do not see why a university should have students [...]".²¹ One of Newman's younger contemporaries, Benjamin Jowett, the famous Master of Balliol when that College still was 'the nursery of statesmen', exclaimed: "Research! A mere excuse for idleness; it has never achieved, and will never achieve any results of the slightest value!"²² And even a century later, another Oxford don spoke with great contempt about "that state of resentful coma dignified by the name of Rezearch".²³ The way he spelled "research" and pronounced it with a strong German-American twang, indicates the contempt for American education that was still so powerful in the 1950s.

²⁰ Ch. McClelland, *State, Society and University in Germany, 1700-1914* (Cambridge 1980) 125. See on this also H. Schelsky, *Einsamkeit und Freiheit. Idee und Gestalt der deutschen Universität und ihrer Reformen* (Rainbek bei Hamburg 1963) 67.

²¹ Newman, *Idea*, IX.

²² Quoted in J. Pelikan, *The Idea of the University. A Reexamination* (New Haven and London 1992) 85.

²³ Quoted in A.L. Rowse, *All Souls in my Time* (London 1993) 44.

Such protests were, of course, all in vain. Research was here to stay. Today, the university justifies its own existence not only, and not even primarily, as a place of higher learning but first and foremost as a centre of scientific research. The academic pecking order is clear evidence of this: the highest accolade does not go to the best teacher but to the most successful researcher. For the researcher, there are Nobel Prizes and similar awards; for the teacher there is a bunch of flowers, a bottle of cheap wine and the dubious accolade: 'Teacher of the Year'. The strategy to promote the university as the best place for the advancement of science has been very successful. This is hardly surprising as in every walk of life, we all benefit, in some way, from achievements in science and technology. Science has become the backbone of society, the prerequisite for progress and economic growth. There is an unbroken chain connecting knowledge to science to research to technology to industry to production to economic growth and finally to wealth and well-being. Today, this forms the main justification for research. However, this utilitarian reasoning is not the only, and may not even be the most important, justification for the acquisition of knowledge. The strongest, and oldest, argument in favour of the pursuit of knowledge is that it is an intrinsic good. Even in Ancient times, Cicero, declared that "we are all of us drawn to the pursuit of Knowledge" and "the search after truth".²⁴ Cicero was most probably inspired in this by the famous words from Aristotle's *Metaphysics*: "All men naturally desire knowledge".²⁵ Aristotle also wrote: "Clearly then it is for no extrinsic advantage that we seek this Knowledge [...] since it alone exists for itself".²⁶ This tradition was still very much alive in the nineteenth century. Newman, for example, not only quoted these words from Cicero but also argued himself that, "Knowledge is, not merely a means to something beyond it, or the preliminary of certain arts into which it naturally resolves, but an end sufficient to rest in and to pursue for its own sake".²⁷

Newman was a pious and religious man but other thinkers also had similar ideas. His contemporary, the French scholar, Ernest Renan was a student who lost his faith, left the seminary, became an agnostic and caused a scandal by writing the *Life of Jesus* in which he wrote "My religion is the progress of reason, that is to say

²⁴ Quoted in Newman, *Idea*, 98.

²⁵ Aristotle, *The Metaphysics* (Loeb Classical Library; Cambridge Mass. and London 1957) 3.

²⁶ *Ibidem* 14-15.

²⁷ Newman, *Idea*, 97.

of science”.²⁸ Elsewhere, in his famous book, *L’Avenir de la Science*, he said: “there is in this world something that is more valuable than material pleasures, or wealth, or even health, and that is the dedication to science”.²⁹

By the time Renan declared his faith in the religion of science and Newman had pleaded for knowledge for its own sake, the other argument in favour of science, the utilitarian one, had also built up a respectable tradition. Even if the utilitarian tradition cannot boast a link to Aristotle or Cicero, it was represented by a not insignificant philosopher from the sixteenth century, Francis Bacon. Macaulay, wrote a wonderful essay on Bacon, in which he has an imaginary follower of Bacon summarise what “the new philosophy”, i.e. science, has done for mankind: “It has lengthened life; it has mitigated pain; it has extinguished diseases; it has increased the fertility of the soil; it has given new securities to the mariner; it has furnished new arms to the warrior; it has spanned great rivers and estuaries with bridges of form unknown to our fathers; it has guided the thunderbolt innocuously from heaven to earth; it has lighted up the night with the splendour of the day; it has extended the range of the human vision; it has multiplied the power of the human muscles; it has accelerated motion; it has annihilated distance; it has facilitated intercourse, correspondence, all friendly offices, all despatch of business; it has enabled man to descend to the depths of the sea, to soar into the air, to penetrate securely into the noxious recesses of the earth, to traverse the land in cars which whirl along without horses, and the ocean in ships which run ten knots an hour against the wind. These are but a part of its fruits, and of its first fruits. For it is a philosophy which never rests, which has never attained, which is never perfect. Its law is progress. A point which yesterday was invisible is its goal today, and will be its starting-post to-morrow”.³⁰ A rather shorter version of this message is found on the wall of the Academy of Sciences in Washington: “To science, pilot of industry, conqueror of disease, multiplier of the harvest, explorer of the universe, revealer of nature’s laws, eternal guide to truth”.

Currently, this is the main argument for the promotion of science. Since the

²⁸ E. Renan, *L’Avenir de la science* in *Oeuvres Complètes* (Vol. III; Paris 1949) 719.

²⁹ *Ibidem* 1075.

³⁰ Th.B. Macaulay, ‘Lord Bacon’ in *The Works of Lord Macaulay. Essays and Biographies* (Vol. II; London 1906) 616.

Second World War, the practical application of science has underlined the importance of advancing pure science. However, defending the interests of pure science while, at the same time, securing funds from the state has turned out to be a delicate balancing act and a rather humiliating task at that. As that remarkable observer of human nature Sir Humphrey Appleby, one of the main characters from the series *Yes Minister*, remarked on an occasion when his boss visited Oxford: “No one really understands the true nature of fawning servility until he has seen an academic who has glimpsed the prospect of money”.³¹ A few years in academia suffice to learn how true this observation is. Nevertheless, there are also some remarkable examples of intellectual honesty. In 1969, when particle physics was at its zenith – it had given the American politicians first the atomic and then the hydrogen bomb – Robert Wilson, director of a famous particle-physics lab was asked by Congress what his laboratory could contribute to America’s defence. There was, of course, an enormous amount of money at stake, but Wilson replied: “This new knowledge has all to do with honour and country, but it has nothing to do directly with defending our country, except to help make it worth defending”.³²

Because the state has become the main financier of science it is able to influence what kind of research will be promoted and what will fall by the way-side. This is called ‘research policy’. By putting pressure on research councils, the government can, either directly or indirectly, influence research priorities in the natural and the life-sciences and, also increasingly, in the humanities and social sciences. As a consequence, funding agencies develop so-called ‘priority programs’ in order to promote the study of certain problems and topics, for example, ethnic minorities, the cultural identity of the Netherlands, the reception of war repatriates, gender studies etc. The selection of these issues is based on social and political considerations and not necessarily on the quality of the research itself.

While this is generally considered acceptable for the sciences, and nowadays also for the humanities, it has, hitherto, not been considered acceptable for the arts. This is quite remarkable as the state now not only takes care of education and science, but has also become the principal financier of the arts, at least in Europe.

³¹ J. Lynn and A. Jay, *The Complete Yes Minister* (New York etc. 1981) 243.

³² Quoted in *The Economist*, 5 January 2002.

In the late nineteenth century, when scientists realised that in order to gain public support they could not defend science for the sake of science alone, the art world did exactly the opposite. It proclaimed its new ideal of art for the sake of art alone (*l'art pour l'art*). This idea has been so successfully disseminated that if an occasional progressive politician tries to support socialist art, or promote cultural activities for young people or for immigrants, this is generally met with derision and considered to demonstrate a lack of taste. Where does this difference in attitude come from? What does this tell us about the difference between science and art?

Art

Although in practice artists and scholars usually move in separate spheres, it would be difficult to deny that, even if their worlds are different, there is a sense in which they are identical. They both spring from the human mind. The creativity of the artist can easily be equated to the inspiration of the scientist. Artists today mostly work alone although it was different in the days of Rembrandt and Rubens. Scientists usually work in groups but in science as in art it is the drive of the individual that matters. The concept of genius is equally applicable to music as it is to mathematics. The name of Einstein is a symbol of scientific genius as much as the name Van Gogh is of artistic genius.

When in 1998, the Royal Netherlands Academy celebrated its 190th birthday; it chose *Science and Art* as its theme. Part of the jubilee symposium consisted of a series of dialogues between an artist and scholar.³³ As a historian I had an easy task as speaker because history is clearly a hybrid discipline: it is a mixture of science and art. That history was originally considered to be an art is illustrated by the fact that it is one of the only two academic disciplines to have its own muse, (the other, perhaps more surprisingly, is astronomy). However, it is equally clear, that writing historical prose is not the same as writing poetry, drama, novels or other forms of literature because historians are bound by rigorous principles and specific methodology. The fact that, today, certain philosophers, and even

³³ *Wetenschap en Kunst. Verslag van een dialoog* (Amsterdam 1998).

some historians, deny this distinction is sad testimony to, what Huizinga has called, the “loss of critical sense”. Nevertheless, it is true to say that history is an exceptional amalgam of science and art, subjects which are usually known more for their differences than for their similarities. The most striking difference is that science is characterized by the notion of progress, while art is not.³⁴

Research is a cumulative process: knowledge is advanced by building on the achievements of the past. Copernicus and Newton are still famous but their theories are outdated. A mediocre physics teacher now possesses far more knowledge about the laws of nature than Newton ever did. In the world of art, this is very different. One rarely hears people say how fortunate we are today to have Karel Appel, Louis Andriessen and Connie Palmen so that we do not have to suffer the primitive attempts of Rembrandt, Mozart and Shakespeare.

Different as they are, there is in my mind no doubt that science and art are very similar in so far as they are the two most sublime expressions of the human mind. There is also no doubt that, as Cicero said, as soon as human beings have satisfied their most basic needs, they start to search for knowledge. And, as prehistoric cave paintings demonstrate, humans will then also look for beauty. The search for truth, through knowledge, is not unlike the search for beauty, through art. As Carl Kaysen, former director of the Institute for Advanced Study of Princeton, once said, “the ultimate standards in the intellectual world are aesthetic”.³⁵ One of his successors, Philip Griffiths, a mathematician and the present Director, wrote, “Fundamental thinking has much in common with art, with play, with dreams; it is fragile and unformed”.³⁶ In the paper I presented at the Academy symposium I quoted, in this context, two famous lines from John Keats’ “Ode on a Grecian urn”:

*Beauty is truth, truth beauty, – that is all
Ye know on earth, and all ye need to know.*

³⁴ See on this: Frits Staal, *Concepts of Science in Europe and Asia* (Leiden 1993): “The idea of progress is not essential to science which is first and foremost interested in truth. But experience teaches that truth is only reached after much untruth has been cleared away” (p. 7).

³⁵ Quoted in Regis, *Einstein’s Office*, 207.

³⁶ Ph. Griffiths, “Don’t Underestimate the Usefulness of ‘Useless’ Knowledge”, *The Scientist*, 17 August 1992.

I was criticized on this point by one of my colleagues who said that if, indeed, this is all one needs to know, we might as well close down all the universities right now. He obviously interpreted Keats a little too literally, which shows how dangerous it is to rely on poetry in order to illustrate an argument. Nevertheless, I am willing to take that risk once again and quote another poem, with a similar drift, this time by Emily Dickinson:

*I died for Beauty – but was scarce
Adjusted in the Tomb
When one who died for Truth, was lain
In an adjoining room –
He questioned softly, ‘Why I failed’?
‘For Beauty,’ I replied –
‘And I – for Truth – Themselves are One –
We Brethren, are’, He said.*

Conclusion

What I have tried to argue can be summarised in four simple statements. First, it is important, indeed imperative, to come to some agreement about the role of humanist studies in secondary and tertiary education. Second, the European universities are undergoing structural change, which will result in a new academic landscape with greater diversity than before. Third, it is wrong, particularly for the humanities, but also for the sciences to defend and illustrate the importance of science and scholarship only in utilitarian terms. Fourth, although there are fundamental differences, science and art also have a great deal in common.

But, to return to my main subject: What does all this have to do with an Institute for Advanced Study? Maybe not much in practice, but it has everything to do with “The *Idea* of an Institute for Advanced Study”. In the title of Phil Converse’s entry on “Centres for Advanced Study” two characteristics are mentioned: “International/ Interdisciplinary”. That is to say, Centres for Advanced Study ought to have an international flavour and be of an interdisciplinary nature. That science is international by nature can be taken for granted. The term ‘interdisciplinary’ however raises some problems. I must admit that I tend to be rather sceptical about the way it often is used. In many cases it seems to be muttered as a mantra. However, at NIAS I have learnt by experience, the value of an interdisciplinary

environment. Here, people from diverse disciplines and interests are in a position to meet, to learn about new subjects, to become acquainted with different approaches and so inspire each other to take a fresh look at their own research. This type of interdisciplinary environment is extremely rare. I, for one, know of no other place where an economist exchanges ideas with an Assyriologist, and where both encourage the other to take a new path down the garden of ideas. The importance of this form of interdisciplinarity was most eloquently described by a Princeton faculty wife who, according to Robert Darnton, said to a visiting Fellow at the Institute for Advanced Study: "It's so nice of you people from the institute to come here and cross-fertilize us".³⁷

International and interdisciplinary are thus the keywords for an Institute for Advanced Study. But to encapsulate the *Idea* of an Institute for Advanced Study I would prefer to use two other notions: freedom and community. Or in Latin, to please Cicero: *Libertas et Communitas*.³⁸ The importance of freedom, and indeed of isolation, which is so characteristic of NIAS, was already recognised by Newman who said, "The common sense of mankind has associated the search after truth with seclusion and quiet. The greatest thinkers have been too intent on their subject to admit of interruption [...] Pythagoras [...] lived for a time in a cave. [...] Friar Bacon lived in his tower upon the Isis".³⁹ If one ever needed an argument for locating NIAS in this isolated part of Wassenaar – or for not providing telephones in the Fellows' offices! – this is it.

Freedom and isolation create the setting, each year, to foster a scholarly community where people listen to each other, talk to each other, inspire each other and often develop life long friendships. This leads me to my fifth and final conclusion: Institutes for Advanced Study should, as far as possible, remain as they are. In an academic world that is increasingly dominated by policies imposed from above and notions of productivity, 'output', and impact, it is essential to nurture at least a few safe havens for the mind. We need institutes where one can work without someone looking over your shoulder all the time. Places where your

³⁷ R. Darnton, *The Kiss of Lamourette. Reflections in Cultural History* (New York and London 1980) 97.

³⁸ I borrow these terms from a paper by Prof. Robert Connor, Director of the National Humanities Center at Research Triangle Park (N.C.), given at a symposium in the Swedish Collegium for Advanced Study at Uppsala, 2001.

³⁹ Newman, *Idea*, 8.

invitation is based on the trust that you will do your best at what you are best at doing.

You may think that I have come up with a rather romantic and perhaps unrealistic vision of an Institute for Advanced Study, and you are quite right. Let me reassure you, I am as surprised by myself as you are. It must be this special occasion that has made me do so. Farewells seem to inspire one to speak at a somewhat more elevated level than normal. They also offer the opportunity to make some personal observations, and that is what I am going to do now. First of all, I would like to say what a great pleasure it is to see here, today, the founding father of NIAS and eponymous hero of this lecture, my Leiden colleague, Professor Uhlenbeck. I am also very happy to see my two predecessors, Professors Misset and Van de Kaa. We all know how much we are indebted to them for their part in founding and directing this institution. I am also grateful to the NIAS Fellows Association, not only for everything they do for NIAS, but also for offering me the chance to deliver my official farewell at their annual meeting. I will have another opportunity later on to say goodbye to the NIAS staff and to thank them for the excellent way in which they have carried out their work. I will make one exception here now for the Executive Director, Wouter Hugenholtz. For more than seven years we have worked together in, what was for me, an atmosphere of harmony, shared responsibility and mutual loyalty. Without this, my tenure as Rector would not have been the enjoyable and rewarding experience it has proved to be. I am deeply grateful for that.

Nowadays, every Rector, Director or Dean is obliged to have a research policy, or a 'strategy'. I have not got one and in fact I have never had one. As far as strategy is concerned, I followed Napoleon's maxim: "You engage and see what happens" (*"On s'engage et puis on voit"*). As far as policy is concerned, I am inspired by what that great statesman and diplomat Lord Salisbury said about British foreign policy: "British policy is to drift lazily downstream, occasionally putting out a boat-hook to avoid a collision". I admit that this does not sound like much, but, on the other hand, in the fields of strategy and of policy it would be difficult to find greater masters than Napoleon and Salisbury.

Having come to NIAS myself without a strategy or a policy it would be out of character to leave a message behind for my successor. Moreover, as Cecil B. de Mille said: "If you have a message, send a telegram". I will, therefore, not conclude with a message but with a metaphor. There are two ways to run a research

institute: as a shepherd or as a gardener. The shepherd uses a sheepdog and wields a rod to drive his flock to green pastures. The gardener waters and nourishes the soil so that the plants in his garden will flourish, flower and bear fruit. It is probably not hard to guess which method I prefer, and so, the advice I have to offer my successor, Wim Blockmans, will come as no surprise to you. I will let Voltaire speak for me through the famous concluding words of *Candide*: “*Il faut cultiver notre jardin*”.

About The Author

Henk Wesseling (1937) is Professor of Contemporary History at Leiden University. He has been Rector of the Netherlands Institute for Advanced Study (NIAS) since 1995 and was Fellow of the same Institute in 1984/85. Wesseling was also Visiting Fellow at the École Pratique des Hautes Études, VI^e Section (now E.H.E.S.S.), Paris, and at the Institute for Advanced Study in Princeton (N.J.), in respectively 1971/72 and 1980/81.

As a recognised authority on European expansion, H.L. Wesseling has published widely on colonial and imperialist history. His best known books are *Soldier and Warrior. French Attitudes toward the Army and War on the Eve of the First World War* (2000); *Divide and Rule. The Partition of Africa, 1880-1914* (1996), which was translated into six languages, and *Imperialism and Colonialism. Essays on the History of European Expansion* (1997).

Henk Wesseling has been decorated by both the French and Dutch governments and has received prizes for his influential academic work, including the many essays he wrote on various historical and cultural topics. Wesseling is currently Deputy Editor of the *European Review*, London.

UHLENBECK LECTURES

Uhlenbeck Lectures are organised by the NIAS Fellows Association (NFA) to honour the founder of the Institute, Dr. E.M. Uhlenbeck, Professor of Linguistics and Javanese Language and Literature at Leiden University from 1950-1983 and Chairman of the NIAS Board from 1970-1983.

Previous Uhlenbeck Lectures were:

1. 1983: E.M. Uhlenbeck *Linguistics: Neither Psychology nor Sociology*
Published by NIAS, 1983
2. 1984: N. Luhmann *The 'State' of the Political System*
Published by NIAS, 1984
3. 1985: G. Steiner *Word and Logos*
Published as: *Woord en Rede. Pleidooi voor een ethische literatuurbeschouwing*
by Goossens, Tricht, 1985
4. 1986: M. Fuhrmann *Die humanistische Bildung des 19. Jahrhunderts und was davon erhaltenswert gewesen wäre*
Unpublished
5. 1987: A.J.F. Köbben *Interests, Partiality and the Scholar*
Published by NIAS, 1987
6. 1988: G. Modelski *Is America's Decline Inevitable?*
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7. 1989: P.W. Klein *The Monetisation of the Dutch East Indies: A Case of Changing Continuity, 1602-1942*
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8. 1990: M. Blaug *The Economic Value of Higher Education*
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9. 1991: Esther Cohen *Gift, Payment and the Sacred in Medieval Popular Religiosity*
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10. 1992: P.H. Kooijmans *Maintaining the Peace in the Shadowland Between the Old and the New International Order*
Published by NIAS, 1992

11. 1993: Wolf Lepenies *Toleration in the New Europe: Three Tales*
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12. 1994: Kristofer Schipper *The Gene Bank of Culture: Reflections on the Function of the Humanities*
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13. 1995: Terence J. Anderson *The Battles of Hastings: Four Stories in Search of a Meaning*
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14. 1996: Maarten Brands *The Obsolescence of almost all Theories concerning International Relations*
Published by NIAS, 1997

15. 1997: Frits van Oostrom *Medieval Dutch Literature and Netherlandic Cultural Identity*
Published by NIAS, 1998

16. 1998: Fritz Stern *Five Germanies I have known*
Published by NIAS, 1998

17. 1999: Dirk J. van de Kaa *The Past of Europe's Demographic Future*
Published by NIAS, 1999

18. 2000: Arend Lijphart *Democracy in the Twenty-First Century: Can We Be Optimistic?*
Published by NIAS, 2000

19. 2001: ıgdem Kađıtibaşı *Development of Self and Competence in Cultural Context*
Published by NIAS, 2001