ON KNOWLEDGE AND EDUCATION

It is with much pride and gratitude that I have accepted the Chairman's Award from the Aga Khan Award for Architecture, following Hassan Fathy, Rifat Chadirji, and Sir Geoffrey Bawa. It is an honor to join such distinguished company, and even more so to be the first recipient who is not an architect or planner, not even a decision-maker at the level the term designated in the deliberations of the Steering Committee many years ago, but an academic scholar and teacher who has spent his life in universities and research institutes, learning and then transmitting to others—in lectures, seminars, and writing—whatever I myself had learned and understood.

It is with these two themes, of knowledge and of education, that my remarks will deal. But let me add that my acceptance also contains a sprinkling of somewhat sentimental memories, and I want to begin with a few of these, because they have a bearing on the achievements of the past thirty-five years, on the subject of my talk, and on the expectations we can have for the future.

Some thirty-five years ago, when I was a member of the first Steering Committee gathered to help His Highness the Aga Khan design what was then simply the Aga Khan Award for Architecture and is now an enormous enterprise operating on five continents, his dream and vision for the growth and development of the environment of Muslims, wherever they live and work, were already fully present in spirit. But, with all due respect, neither His Highness nor any of the six or seven people gathered to help him out had any clear idea of what to do and how to translate his vision into reality. The story of how this eventually came about will never be told, because multiple separate memories are involved, some of the key participants are no longer alive, and, to my recollection, no coherent record was kept of the inventive and creative discussions among the imaginative, hardworking, and witty dozen-or-so men and one

woman who bear the responsibility for what happened.

Two questions dominated our discussions then. One was: is there an abstract cultural phenomenon to be called Islamic architecture that is not simply whatever architecture is or was used by Muslims, and that could be defined as different from whatever was done elsewhere or for other human groups? And if so, how do we find out what it is? The other question was: once we find out, how do we let the world in general and Muslim communities in particular know what it is? The aim, or one of the aims, of the Award was to help maintain the quality and presumed uniqueness of this architecture, while bringing to it the most effective economic, technical, and cultural practices of our own day. There was something simple-minded in our feelings then that the local past was almost always genuine and good, and that contemporary universal ways were usually meaningless. We were clearly wrong then, mostly because of our ignorance of what was really going on and because we were ourselves the victims of very narrow prejudices. We all felt that weakness. And one of the main objectives of our meetings was to acquire knowledge of planning and constructional practice and to provide a program of creative education. We were not to be restricted by arbitrary opinions, nor by presumably established doctrines.

In a sense, our task of many years back was justified by an often-quoted Tradition (hadith), attributed to the Prophet Muhammad, that knowledge must be sought wherever it is to be found, even in China. In the seventh century of the Common Era and the first century of the Hijra, "China" was a way to identify a remote world that was known to exist and be important, but that was hardly accessible. The point of the Tradition, that there is knowledge everywhere, none of which should be rejected without being tested, is still pertinent today.

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Knowledge is indeed created everywhere, and China has become a central actor in the cultural and economic realms of today's world. What has changed dramatically since the time of the Prophet, and what keeps changing in ways that are almost impossible to predict, is the nature of knowledge and the means in our possession to deal with it.

Such contemporary comments on the hadith as are known to me do not talk about education. At the time of the Prophet, transmission of practical or philosophical knowledge was relatively simple: through writing, copying, and reading books; through oral arguments kept in the memories of participants; and through the continuing practice of artisanal procedures transmitted from father to son, from master to apprentice, and from region to region. Any capable and intelligent person was then able to master most of what was known. The breadth of knowledge within the minds of many talented individuals before the seventeenth century can at times be truly stunning, even if such individuals were rare. Education was one with information and knowledge, and it took place wherever there was a library and a few literate and concerned individuals, or within ateliers of artisans.

Today's scene is dramatically different. There are as many centers producing information as there are countries with universities, technical schools, archaeological institutes, hospitals, architectural firms, and museums. Much of this information is available in what I once counted as twenty-six different languages (I am sure it is in many more by now). It exists in millions of books, hundreds of journals, thousands of reports, and now, thanks to the Internet and Google, it is accessible, in theory at least, almost everywhere in the world. Museum collections have been photographed and recorded, exhibitions kept forever on DVDs. And I suppose that architectural firms and excavators preserve whatever they find and do on masses of discs. In short, the quantity of available information is enormous—so large that it cannot be mastered—and it is easy to forget whatever one has just found out. No one can say anymore that he knows all about Islamic art, about the architectural projects of today, about excavations, about objects from any one period of history, or about anything but a narrow strip of constantly changing information.

And I can even go a step further. As I discovered recently while listening to a lecture on physics by a Nobel Prize winner of recent vintage, what we see and can describe as a variety of people in this original building is only one reality, one truth. Both people and architecture can also be defined as an infinite number of quarks and electrons in constant motion. This particular reality is invisible and can only be measured in mathematical terms. Indeed, it is rather curious that the fact of an invisible reality of everything (to contemporary physicists, I gather, there are several such parallel realities) coincides in many ways with the theory of atomism developed in ancient Greece and then transformed in ninth-century Baghdad. This theory acknowledged the existence of an invisible reality of all things, a reality that was or could be modified, but it held that God alone was empowered to alter these constructions—that is, us as people and everything around us, including what we think we have created—or to keep them as they were. Within this traditional scheme, truth was always one and invisible; our own science today assumes the existence of several parallel truths in addition to the one we see with our eyes. It is often the case that transcendental and laboratory-defined explanations come close to each other, but they can never meet, for one is ultimately based on beliefs and the other one on experiments. This is altogether an area of concern I shall not touch on today, except perhaps a little bit in conclusion, but it is an important one. How do we separate what we know from what we believe? Or do we? Should we?

The contemporary explosion of data has by necessity created two ways of dealing with it. One way is to restrict one's focus and claim total or near-total knowledge only in narrowly defined spheres, say, the Ottoman world of the eighteenth century, the ceramics of Iran, the construction of minarets, or the contribution of Hassan Fathy to contemporary architecture in the Islamic world. Specialization becomes the order given to knowledge, and it tends to be determined by the limitations of linguistic competence, area awareness, or even mental capacities. It tends to become national, but it presumes thoroughness and completeness in dealing with its subjects. It also requires large numbers of equally competent specialists, properly distributed everywhere and well versed in other languages and

other histories, who may or may not find ways of communicating with each other. Ultimately, however, successful specialization is impossible to achieve, and this way of proceeding compels one to lie about what one knows or to project arbitrarily a limited experience to other areas of knowledge.

I will give just one example taken from history, although contemporary politics provides many such instances. Traditional architectural decoration of Andalus in Spain, or of Egypt, Iraq, or Central Asia, is dominated after the tenth century by its complex geometry. It is easy to argue that this is the result of Islamic religious and philosophical thought that rejected or avoided resemblances to natural creations and found in geometry an abstract truth that could be given aesthetic values. But it is also possible to show that rather different mathematical theories had developed in Central Asia and in Andalus, and that the practice of artisanship was quite different in the two regions. The existing designs did not reflect the same principles: different social and cultural interpretations must be provided for strikingly similar motifs, and especially for the transfer of abstract thought to architectural forms. It is easy to provide a universal or pan-Islamic interpretation because external forces, political or cultural, require such an interpretation today, while in fact, for a scholar or a student aware of the details of several separate histories, very different social, ethnic, pious, and intellectual factors were involved. But what is more important: the historian's search for and eventual knowledge of the truth, or the contemporary political or social leader's need to satisfy contemporary emotional needs? Any answer bears heavy political and ideological implications. Here, however, is an instance without deep political implications. Many years ago, as I shared a panel in Indonesia with Hassan Fathy, he gave a very eloquent speech on the necessity to save water in an Islamic society and cited appropriate Arabian or Egyptian examples. But his Indonesian audience replied that in Java water is a danger against which protection is needed, and that the principles of the faith have nothing to do with it. Which position is more "Islamic": the one that preaches saving water? Or its opposite, getting rid of water as efficiently as possible?

The other direction in which the explosion of information leads was outlined to me some years ago by an

early Internet activist with much experience in the physical and natural sciences, who was installing a new computer in my office. He wanted to let me know what wonderful progress was being made available for my research, just as it was, apparently, for chemistry. Every week I could receive automatically, as in a newsletter or, today, by e-mail, an illustrated summary, in English, of every publication about the history of Islamic art, or the practice of contemporary architects, or both. This survey would include a judgment as to the significance and value of each publication, wherever it appeared and in whatever language it had originally been written. Even if one grants that his hyperbolic enthusiasm for weekly accounts gives more credit than deserved to the activities of the few who deal with the arts of the Muslim world, his basic point was simple. The vehicle by which the explosion of information is all gathered together requires the formation of a class of intermediary handlers—today I suppose we could call them consultants or executive assistants—who channel information and evaluate it for the use of others. They would be collectively competent in all appropriate languages, would have a literate command of English, and would undergo a type of training that would guarantee the accuracy of what they relate and its appropriateness to whatever we need to know.

In the political thought of our own times, as in chemistry, this accuracy is a variable, and one of the reasons for the failures of contemporary political leadership is that the experts cannot manage to keep up with change. Things are probably a bit simpler in architecture-related matters. To some degree, for our broad area of the manmade environment of the Islamic world, this consulting function is partly fulfilled by ArchNet, the creation of the Aga Khan Program at Harvard and MIT. This is more or less true with respect to information. But I am not sure that ArchNet possesses well-developed critical abilities, or that it is capable of reacting rapidly and intelligently to new knowledge and of distributing its awareness to all of its constituents, whether they asked for it or not. Part of my uncertainty derives not so much from failures in the operation of ArchNet as from the absence of broad categories for the understanding of architecture that would automatically be known to all and consistently included in all new information. We 286 OLEG GRABAR

cannot expect something as direct and universal as mathematical formulas, but we should be able to develop standard categories of description and interpretation that could be expressed in any language.

A simple example of such a category is the material of construction: stone, wood, brick, concrete. We think we know what these terms mean, but it is enough to pick up any book in Russian or Uzbek on architecture in Khorasan and Transoxiana to become totally confused about the terms for the different types of mud bricks that seem to have been used. Moreover, there are much more complex categories of understanding that, like style, are impossible to define, or that, like design, are too difficult to explain in theory, if not in practice. Finally, while the means exist to make knowledge of architecture available, this is not true of the other arts, where utter disorder of knowledge is still the rule, and where there are very few categories of identification and description. All museums, for example, exhibit their treasures as closed collections tied to a donor or a space, but all historians jump from one collection to another in search of comparative material or in order to explain complete series of artifacts, whether the Fatimid ceramics of Egypt or Mughal miniatures. Each of these procedures requires very different basic information.

I might add, without putting it forth as an immediate possibility, that these categories of understanding could be expressed as drawings or charts and models—visual symbols easy to store and understand and available in a single language that every practitioner, whether scholar or urbanist, would have to learn. But, then, as I reflect on the inane conclusions our governments so often draw from statistics and models made by economists, I am afraid of even suggesting this approach. Someone else will eventually do it better.

Let me sum up, then, the first part of my talk. The explosion of knowledge of architecture, the built environment in general, and all other arts from the areas in which, now or in the past, Muslims are or were present and active—this explosion consists of two components. There is *information*: the immense body of documents, ranging from individual buildings to space-creating aggregates of buildings to written documentation, which includes descriptive accounts of built environments, the legal restrictions attached to them (I am

thinking of the thousands of remaining waafiyas [endowment deeds] dealing with the urban environment of most Muslim cities), the multiple ways in which they were or are used, the critical record of how they were received, and philosophical or literary considerations about them (although we have few of these, at least to my knowledge). To know how to find our way in this mass of information, we need knowledge: codes and protocols, means of access to information that has already been processed for easy use. These codes still have to be generated if we hope to make the mass of existing information usable in an intellectually and morally acceptable way. This is where my way of presenting the evidence leads me to those who rule the architectural and artistic universe, the patrons of art and of museums and the users of works of art, the decision makers to whom we owe so much of what is around us. It is, I believe, their responsibility (I was going to say "obligation") to sponsor the creation of such a system for access to information and to support for several years the teams of young men and women who could develop and manage it. It may initially be an expensive task, because errors will be made; I could tell you more than one pathetic or comic story of our own expensive mistakes of over thirty years ago while building up the Aga Khan Award and then ArchNet. But ultimately information can be tamed and made accessible in an acceptable form to all who need it.

Yet it is not simply a matter of establishing categories of description and understanding. It is also a matter of bringing these categories within the comprehension of people and groups. To do so is, as I understand it, one of the purposes and requirements of education, and I would like to turn now to some remarks on what education is and how it operates.

Education can and should be understood at three different levels. The first level is the scholarly one, the level of the learned practitioner. It is the highest one because its aim extends beyond existing knowledge to the creation of further knowledge, and because it is, or should be, equipped to communicate with all fields of the humanities and social sciences. I insist on this point, as I feel very strongly that comparative understanding is a key feature of learned scholarship. Among other things, it permits one to avoid the dominance of West-

ern art. Over the years I profited a great deal from whatever I learned from contemporary theories of structuralism and linguistics, and I owe a great deal of my understanding of Islamic art to the more developed methods of dealing with Western art. The usefulness of these methods did not mean that works of Islamic art were like works of Western art; it did, however, imply that there exist broad, universal principles behind our understanding of the arts, and that a good specialist in Islamic art should readily be able to handle Christian or classical art.

This learned level is also the easiest one to understand. Naturally and professionally it is centered on maximum information and on the development of ideas. It is restricted only by the linguistic and intellectual limitations of its practitioners and by the time available to deal with it. The development of consultants or assistants and improvements in the operation of the Internet should lead to scholarship that will improve individual learning and be made available through the usual mechanisms of higher education: seminars with students, colloquia with colleagues, publication in books with a necessarily limited public and in oftenobscure periodicals. This level will always remain a relatively restricted one, not only because it requires many technical—especially linguistic—competencies, but also because it demands a passion for learning that is timeand mind-consuming and exists only in a few people.

The second level of education can be called the level of social leadership. It involves those individuals and institutions that are running governments and financial or industrial enterprises and defining the cultural context of their actions. They make decisions about school and university curricula, sponsor films and television programs, publish newspapers and magazines, and patronize new projects. The form of the governments in which they operate varies a great deal, and in their hands lies something even more important than the sponsorship of buildings or the interplay of social and political activities. They provide rewards and awards; they accept or reject the implications of new investments, whether an airport, a university, or the restoration of a historic building. They decide whether something is going to be called Islamic, Arab, or Egyptian, and they define the features of urban developments. They accept or change symbols—flags, occasionally clothes, or simply colors—credibly associated with a land or a culture. The power of this social-leadership level of education is enormous and so are its responsibilities, but it is far less clear to whom it is responsible. It is easy enough to identify its aims and ambitions, but it is more difficult to describe the ways in which it can be influenced and improved. It should avoid the policing of thought or the proclamation of compulsory national, ethnic, or religious sets of forms and doctrines. But how does it maintain a climate of openness to the many available forms of knowledge that would insure that whatever it sponsors reflects traditions as needed, without becoming absurdly self-centric or entirely transformed by foreign imports? When can obligation to the past be abandoned and a present in conflict with that past be endorsed? These are not easy questions to answer, but they must be dealt with by those who advise leaders, if not by the leaders themselves. And they require a very broad education as well as some passion.

The third level of education lies with the general public. There are many myths and falsehoods in the collective memory of large and small groups of people. Such misconceptions can be dangerous, especially when picked up by ignorant news media; they can lead to the destruction of monuments or sites, to the assassination of opponents, or, on a less upsetting level, to the broadcasting of false slogans or the sponsorship of dubious causes and unacceptable opinions. The recent events, often tragic but at times merely ludicrous, surrounding portraits of the Prophet or the wearing of the burga have shown how easy it is to inspire actions through ignorance and to foster destruction instead of discussion. Here I am thinking about a topic removed from my area of knowledge and competence, but I would argue that public education must concentrate on the media shared by all—such as radio, film, and television—and on the primary and secondary schools attended by boys and girls. The enlightenment and training of primary- and secondary-school teachers seems to me essential, because it is they who ultimately fashion the beliefs, attitudes, and eventual passions of all men and women. In the case of teachers, it should be relatively easy to develop adequate programs, because most teachers are 288 OLEG GRABAR

dedicated to the task of educating the young, even when they are not properly informed about what to teach them. Matters are much less clear when one deals with the media, so often responsible for the dramas of today. But this is yet another area of which I have little factual knowledge and must leave the discussion to others.

Of scholarly knowledge and education the needs are fairly clear, and meeting them requires only important technical components. University-level academics, teachers and thinkers in professional schools, and wellestablished practitioners can be reached with a minimum of effort, once certain mechanisms of information and judgment are developed and the gap between wealthy and poor countries lessened. Matters of education are more complicated for leaders and for the general public. The Aga Khan Award for Architecture, along with its several side developments, is to my knowledge the only organization that has tried to reach publics so different from the professionals of architecture. But I am not aware of any formal depiction of its efforts, or of any professional evaluation of its impact beyond the moment of pride and of joy that accompanies any award.

I would like to conclude my remarks by repeating, first of all, that much has been accomplished in the practice of architecture in Islamic societies and in the awareness by the rest of the world of the quality of that architecture and the talents of those who execute it. Thirty-five years ago, in our experience, students in professional schools sought their models exclusively in Europe and America, not in their own backyards; Hassan Fathy was honored more as a person than as a model. This is no longer true today, when architects in the Muslim world possess knowledge of the vernacular and sometimes even take pride in it, and when Muslim architects are practicing successfully all over the world. Furthermore, information is relatively easily available, although not systematically enough and with often dubious interpretations. In general, the levels of knowledge and practice have changed considerably and can meet the lofty ideals sketched out thirty-five years ago. Other things have changed as well. The collapse of the Soviet Union brought seven new countries within our collective awareness and, more significantly, liberated a high level of technical know-how, still poorly exploited because of linguistic barriers. Muslim Africa and Malaysia are no longer the unknown visual experiences they were then. And the complexities of the Muslim presence in non-Muslim lands have affected the minds of all men and women, unfortunately not always for the good.

These are all developments that could have made all of us richer and more sophisticated in our understanding of the vast Muslim world. But have they done so? Not invariably. In a paradoxical way, they have strengthened parochialism, because few thinkers, practitioners, or generalists are really involved in imagining what Morocco, Uzbekistan, and Malaysia have in common. It has become easier to shore up what is one's own than to drown it with too much parallel information. This development is clearly tied to the rise of local nationalisms of all sorts, and it may not subside. National passions are so tragically inbred in men and women that I can only hope that the global humanism I wish to preach is not a dream. The rise of violent extremism among Muslims and a destructive and senseless response among non-Muslims have led, for our academic and practical purposes, to an almost paranoiac concern for security and to restrictions on travel and exchanges of all sorts-restrictions harmful to the growth, even the maintenance, of learned connections and fruitful knowledge. Behind both extremism and the response to it lies a profound ignorance of everything from the interpretation of religious texts and the awareness of history to the beliefs and motivations of others.

These are rather frightening prospects, especially when it is so easy to conjure up a vision of a rich and productive future in which local creativity can enhance the lives of all men and women, from financial and political leaders to schoolchildren. People of my age will not know whether this vision will ever become real, but we all recognize that those here and elsewhere who are under fifty have an exciting challenge ahead of them, and that they possess, thanks to the Aga Khan Award and a number of parallel institutions, one or more vehicles to meet that challenge.