Trash And Treasure

A CRITICAL EXAMINATION OF AUTHENTIC ISLAMIC SCIENCE AND THE DECADENT MODERN PARODY

Muhammad Yousaf Ahsan

A Critique of a New Journal

'...What is characteristic of modern culture is the narrowing down or the field of science and the development of a `scientism' which interprets the data of science in accordance with a materialism which is imposed upon rather than derived from this data."[1]

In the name of Allah, the Merciful the Compassionate, To God be all praise for showing his sincere servants the signs of His greatness both in the universe at large and within their own selves, until at last it be-comes clear to them that He alone is real.

The Prophet (SAAS) said: "Islam originated as an alien thing and it will again become an alien thing…"[2]

Islamic civilization was a field of diamonds. It was Heaven's last rain of truth. For long ages the winds of negligence have blown the sands of obscurity across the august landscape of Islam. The worst encroachment has been suffered in those sectors which have most permitted the inroads of Western secular thought and custom to become established. The corruption of Muslim mores and notions is now wholesale, largely because of the universality of essentially Western education in Muslim lands. Islamic science is one of those aspects of Islamic civilization which has been so long and deeply buried by neglect that its real nature and import is only grasped by an exceeding minority

of savants among those Muslims who have had the rare good fortune of having, not only an entirely traditional Islamic education, but an education in the Islamic intellectual tradition apart from the canonical tradition. Among those Muslims who have suffered Western educations (and so have been indoctrinated in the scientific and progressivism perspective) the number of those who can really comprehend Islamic science is virtually nil it is a knowledge in exile, a hidden treasure.

Lately, however, there has been some worthy effort to revive this knowledge and to distinguish it from its antithesis — modern science. The secular scientific outlook has entrenched itself since several centuries as the truly objective and enlightened perspective and the only choice for reasonable and intelligent men. Because of the decadence of religion, particularly in the West, but also in the Muslim world, no effective challenge was ever given. What was required was an adequate critique of the basic premises of the scientific edifice and of scientific epistemology; however, the metaphysical knowledge necessary for such a critique had been almost entirely eclipsed and the only criticism which was ever offered was either of a sentimental or canonical nature. Canonical authority (taqlid) is quite satisfactory for people who accept it unquestionably, and, we might add, fortuitously because it is true and normally sufficient. However, it has not ostensibly been effective in stemming the onslaught of corrosive Western ideology. In fact, Muslims to a very considerable extent have given themselves to making effete and servile apologies in support of the indiscriminate adoption of Western ideas of government, economy, society, and law, as well as Western science and technology. Fortunately, there has arisen in recent decades a growing

cadre of outspoken and articulate Muslim intellectuals equipped with the necessary knowledge of traditional metaphysics and traditional science together with a complete knowledge of Western thought including an understanding of its philosophical roots and history. These elite spokesmen have made such a powerful intellectual and logical criticism of Western thought as cannot be controverted. Only on cleared ground can the intellectual edifice of Islam be reconstructed.

In this critique we will attempt to expound the essential realism and the rigorous intellectuality of the much misunderstood Islamic science, while at the same time exposing the unreality of the reductionist view-points of the modem inductive sciences and the scientific philosophy which as we will present, is an inseparable element of science itself. The first issue of the MAAS Journal of Islamic Science was produced in January 1985[3] with the avowed intent of catalyzing the re-establishment of an Islamic methodology of science. The articles written for this issue are mutually contradictory. A few present the legitimate and integral Islamic perspective but the rest present the usual capitulations, the unquestioning assent to basic Western premises, together with the routine distortion and misrepresentation of Islamic science. As such the journal affords a suitable point of reference for a critique of contemporary Muslim thought with respect to science and technology.

In the first article of the journal, "The Role of Traditional Sciences in the Encounter of Religion and Science: An Oriental Perspective", Dr. Seyyed Hossein Nasr[4], a celebrated international authority of Islamic science, convincingly demonstrates that the traditional Islamic sciences like mathematics, astronomy, cosmology, natural

science, and alchemy were based on metaphysics whose primary object was "to read upon the pages of God's creation this primordial message which virgin nature still carries upon the face of her manifold manifestations." (p. 10) "The highest function of the traditional sciences has always been to aid the intellect and the instrument of perception to see the world and. in fact all levels of existence, not as facts or objects but as symbols, as mirrors in which is reflected the face of the Beloved from whom all originates and to whom everything returns." (p. 25) Dr. Nasr ably and irrefutably demonstrates that the Islamic sciences were "symbolist": their main concern was to give to man the knowledge of the hierarchy of being: to reveal to him the verities of the supra-formal dimensions of Reality ('alam-i-tanzih) and of the mysteries of his own inner self which was seen as the requisite to the knowledge of God. These sciences affirmed the pure transcendence uanzih mahad) of God as well as His immanence (tashbih). As such these sciences were esoteric that is, their understanding required spiritual and intellectual qualification. This contrasted them with modern sciences whose comprehension require, only mental abilities.

Intellect versus Reason

This brines as to what is a basic difference between modern science and traditional Islamic sciences: namely, the notion of intelligence or intellect. Dr. Nasr writes that the traditional "sciences are based on a hierarchic vision of the Universe, one which sees the physical world as the lowest domain of reality, yet one which reflects the higher states by means of symbols which have remained an ever-transparent gate towards the invisible for that traditional humanity which had not as yet lost the 'symbolist spirit'.[5] (p. 13) In the

traditional understanding intellect is precisely the intuitive capability (ta'aqqul, ta'arruf. wijdan, hasirah, etc.) to apprehend the meaning of the symbol Calamat) which is a sign pointing at the reality which it reflects according to strict laws.

Since the proper understanding of intellect (al-'aql) is crucial to understanding Dr. Nasr's point as well as the argument of this essay it is well at this point to clarify the meaning since we are quite aware it is one of those terms which is much abused. Dr. Nasr writes:

In Arabic and other Islamic languages a single term, al-'aql. is used to denote both reason and intellect, but the distinction between the two as well as their interrelation and the dependence of reason upon intellect is always kept in mind Al-'aql in Arabic is related to the root 'ql which means basically to bind It is that faculty which binds man to God, to his Origin.'

In Mishkat Al-Anwar Al-Ghazzali points out in discussing the verse "Allah is the light of heavens and the earth…" (Sara Nun) that the word "light" (al-nur) is used as a symbol of al-'aql because al-'aql is pre-eminently luminous in that it perceives itself as well as causing other things to be when while physical light and even the percipient spirit in the eye does not perceive itself although it allows other things to be seen.[6] In the classical meta-physics of all of the three Semitic religions: Judaism, Christianity, and Islam: the Supreme Intellect is envisioned as the Supernal Sun whose ray touches the heart of man and affords him direct and certain knowledge.[7]

In Islamic gnosis (ma'rifah) the heart is the seat of the intellect and the brain is the seat of reason which is indirect or reflected knowledge and is therefore symbolized by amnia-

light. However, the knowledge of the heart is direct and it implies realized knowledge: this is emphatic in the Qur'an and hadith:

Have they, then, never journeyed about the earth, letting their hearts gain wisdom and causing their ears to hear [literally, whereupon they would have a heart wherewith they might understand, or ears wherewith they might hear} yet, verily, it is not thou eyes that have become blind but blind have become their hearts within the breasts:

(Qur'an 22:46. Trans M Asad)

In the above verse "gain wisdom" is the rendering for ya'qilun which, of course, is the verb with 'aql as its root

The ahadith are explicit in presenting 'aql as the intuitive intellect as opposed to reason. Al-Ghazzali writes in Ihya:

It was also related on the authority of al-Bara ibn al-Azib that the Prophet (SAASI said, 'The angels have been earnest and diligent in their obedience to God wholly through their intellect; while the believers among the children of Adam have endeavoured to do His will as far as their intellect has allowed Consequently the most obedient among them possesses the greatest intellect' Again it was reported on the authority of Aishah that she once said, 'O Apostle of God! wherein do people excel one another in this world? He replied, 'In intellect' `and in the here after? She added 'In intellect', he again replied. Then Aishah said, 'But are they not rewarded according to their works?' To which the Apostle replied, 'O Aishah! Have they ever achieved anything except in proportion to what God has given them of intellect? Their works will always be in proportion to the intellect which God has given them, and their reward will be in proportion to their works.'[8]

In the above *ahadith*, the direct or presential aspect of the

intellect is clearly indicated and not the indirect and discursive reason, for a man can have rational knowledge and sidi be disobedient to God. In rational knowledge there is separation between the knower and what he knows: whereas in intuitive knowledge, the knower is what he knows[9] Reason comprehends only the sensible order: it is not adequate for apprehensions supra-formal truth.

Since the rationalists reduced 'aql to mere reason not a few Sulk reacted by dnpatam-Me 'aql; Muhammad Iqbal the modem poet, is a prime example. However, Iqbal's illustrious predecessor Maulana Rumi had long before vindicated 'aql in his famous line.

[Reason (literally partial intellect) has cast a slur on intellect]

Before Rumi, AI-Ghazzali had likewise defended it. He closes his chapter "kitabulllm" in Ilya by posing a question:

You may say, 'Why then do some groups among the Sufis disparage the intellect and reason as well as the rational: end the reasonable?' You should know, then that the reason for it is that men have transferred the term intellect or reason ('aql) and the term rational or reasonable (mean!) from their real and original meaning to another and false meaning, namely argumentation and debate over contradictions and requisites which is scholastic theology. Consequently the Sufis could not tell that men have erred in this terminology, especially since it has not been possible to remove that from their minds in view of its current and well established usage. As a result they disparaged reason and rationalism. Could it be imagined, however, that the light of insight, through which God is known and the truthfulness of His Apostle is recognized will ever be disparaged or belittled when God Himself praised it? And if it were ever disparaged what other

thing could be praised?[10]

In the modem world since Descartes, the supra-rational aspects of intellect have been denied. This initiated an "intellectual regress"[11] which could only culminate in the negation of the ontological hierarchy of being, because the very faculty which was capable of apprehending the supra-formal orders, atrophied — this was the provenance of materialism. The modem sciences, which are so sullibly taken to be disinterested and objective, are nothing of the sort, for their interest in the world of matter is already the outcome of the negation of the greater part of reality and the individualistic denial of absolute truth. Unless and until this point is understood, and understood completely, neither can we criticize modern science properly, nor can we begin to appreciate Islamic science. We will have occasion to consider this intellectual regress more closely presently, but let us first dispel a very misleading myth.

Degenerate Residues

In an article contributed to Journal of Islamic Science, "The Development of Scientific Methodology by the Muslim Scientists", Hafizur Rehman Siddiqui writes that "the treasure of scientific knowledge reached the hands of the Europeans through Muslims." (p. 45) This statement is only true in part, for, while it is not to be denied the Islamic sciences gave much to the Europeans, and that what the Europeans inherited from the Muslims was the very foundation of the modem sciences; still, far from receiving "the treasure" of the Islamic Science, Europe inherited only the outward and inferior aspects of those sciences. Mr. Siddiqui proudly maintains, as do the majority of Muslims who have received Western educations, that the Muslim sciences were the

precursors of the "wonderful" modern sciences (whose worth, it would seem, is beyond question). This notion originated with European historians of science and orientalists who, because of their secularized notions of knowledge, were incapable of recognizing the real import of the Islamic sciences. Well have they succeeded in convincing Muslims that Islamic sciences, although seminal with respect to modem science, were primitive?

The stark truth of the matter is that modern profane sciences are nothing but "degenerate residues", to quote Rene Guenon,[12] of the Islamic sciences which studied nature to see beyond it, as Dr. Nasr has said somewhere. From the traditional Islamic perspective phenomena were symbols (ayat) in the Book of Nature (Awwal l-Kitab-Allah) analogous to the verses (ayat) of the Qur'an; whereas, profane science sees in phenomena only facts. In the Islamic sciences pure knowledge was sovereign; whereas, the raison d'etre of profane science is the control and exploitation of nature.[13]

This is not to say that Islamic sciences had no usefulness. Given that man is a micro-corm of body, spirit and psyche he has spiritual and intellectual needs which are of a pre-eminent order and compared to which his physical needs are trivial, for the body is only the vehicle of the soul. Nonetheless, the Islamic sciences had, secondarily, utilitarian applications. What has to be kept in mind, however, in considering the utilitarian and speculative aspects of modern and traditional science is the matter of priority. Dr. Nasr has written:

The main difference between the traditional sciences and modem sciences, however, lies in the fact that in the first case the profane and purely human remain always marginal and the sacred central, whereas in modern science the profane has become central and certain intuitions and discoveries which,

despite everything, reveal the Divine Origin of the natural world have become so peripheral that they are usually hardly ever recognized for what they are despite the exceptional views of certain scientists. The traditional sciences are essentially sacred and accidentally profane and modem science essentially profane and only accidentally aware of the sacred quality of the Universe…(p. 13).

Mr. Siddiqui has mentioned in his article only one methodology which was employed by the Muslims, namely, the inductive method. He is full of praise for this method and he proudly points out that Muslims bequeathed this methodology to the Western world. Osman Bakr has pointed out, however, that the Muslim scientists employed several methodologies. He writes:

One of the most important conclusions established by Professor Nasr's pioneering works on Islamic science viewed as an independent scientific and intellectual tradition, is that there is no single methodology that is used in that science to the exclusion of all others. On the contrary, the Islamic sciences have sought to pursue different methods in accordance with the nature of the subject in question and modes of understanding that subject. Muslim scientists in their cultivation and development of the various Islamic science, have relied upon every avenue of knowledge open to man, from ratiocination and the interpretation of sacred scripture to observation and experimentation."[14]

There is a counter-movement within the modem scientific community, comprised of some of those most distinguished scientists of this century, like Einstein and Heisenberg,[15] which recognized the limitations of the inductive method and advocated a "pluralistic methodology".[16] Such scientists are half-way between the

profane modern perspective and the Islamic perspective. As such they are the natural allies of Muslim scientists seeking to restitute or re-define the authentic Islamic science. What desperately needs to be recognized is that Islamic science and, indeed, most ancient traditional science is not what it is made out to be, and for those who know only the Western perspective, it has to be added, it is not what it may seem.

"The idea of only one type of science of nature being possible, through the use of the Scientific Method, greatly influenced our whole way of looking at pre-modern sciences, including Islamic science. The degree of application of the `scientific method' became the universal yardstick of the scholarly community to determine the degree of scientific creativity and purity' of the pre-modem minds."[17] It is but one of the awesome ironies of our age that Islamic science is examined in a spirit of condescension even by Muslims themselves, for compared to the sublime perspective of Islamic science, modem science is all pomp and prattle as we will continue to show in this essay.

In the article we have mentioned Mr. Siddiqui has described some of the curious beliefs of the Greek philosophers: "Aristotle thought that putrefied meat gives rise to flies; if some pregnant mouse happens to swallow a piece of salt, all the babies in its womb will automatically be conceived." (p. 48) No doubt this will come as a shocking statement to those who are steeped in the lore of progress, but the fact is that these quaint factual errors are of little ultimate consequence. Rather, when viewed from a different perspective, it is mark of superiority, for it shows that the Greeks felt it was beneath their dignity to be overly concerned with the details of nature, because such concern was something they viewed as not particularly relevant to the

business of being a man, and, besides, they felt they had better and more important things to do: these things pertained to learning the secrets of their own being and the real nature of the universe and not just its appearance. In short, they upheld the primacy of universal principles; and their preoccupation was with them, and not so much with facts.

The principle interest of the Greeks was in metaphysics, not in physics. We are using "metaphysics" not in its debased modern connotation, where it is grossly misconstrued as either a branch of philosophy or as the primitive precursor of physics, but in its etymological, classical and legitimate sense, that is, the knowledge of supra-formal and universal pets: it which is beyond physics and on which all manifested phenomena depend and to what all sciences must he referred.[18] "for Aristotle, physics came 'second' in relation to metaphysics, it was dependent upon metaphysic, that is to say; and was really only an apply to the province of nature of principles which were superior to nature and are reflected in her laws…".[19] However. although Aristotle in his esteem for metaphysics, ranked it at the "foremost philosophy"[20], he erred gravely in considering metaphysics to be in any, 'compatible to philosophy or any other science including logic and mathematics. These sciences of their indirect and contingent nature differ in kind with true metaphysics which surprises direct knowledge of the Supreme Principle and its determinations in the .usher, cal world.[21] These principles are the real and anterior causes of all psychic and physical manifestation.

The West has laboured fur centuries under a profound misunderstanding of the real seep, .and import of genuine metaphysics Although the term has been bandied about much

ha men like Descartes. Spinoza, Heidegger and others no more informed than they, since the Renaisance metaphysics has been grossly misconstrued. Metaphysics is a universal knowledge a knowledge of totality. Rene Guenon remarks in emphasizing its utter dissimilarity with philosophy, psychology, mattematies, logic and all the other sciences that "the abseduce Mile cannot form a part of something nor can anything else whatsoever enfold in

—'p "s line. cyst _[22]22 He continues to say that "it cannot be based on anything other

than itself from the very fast that it consists of the knowledge of universal principles from which is dented including the subject matter of the various sciences."[23] Guenon further clus~idafes that even logic is subordinate to metaphysics in that "what are called linden] principles are simply applicotions and specifications in a determinate sphere of the true principles which belong to the universal order…"[24]

Metaphysical principles ('ayan) are to be found within ourselves as well as in the world about as: "We shall show them our signs on the utmost horizons (al-afaq) and in their own souls (anfusihim) so that they know this verily is the truth-" (Qur'an 41:53). Azid Ibn Muhammad AI-Nasati has reported a hadith which exalts this immanent aspect of true knowledge. "When Ali asked Muhammad 'What am Ito do that I may not waste my time. The Prephet answered, 'Learn I' know thyself.'[25] The sovereignty of metaphysical knowledge with respect to all nth sciences, which are an application of these principles in the sensible order is most eloquently expressed by Philo the Jew date first century BC

For pray do not spin your ai;c fables shout moon or sun

or the other obits", in the

ski and in the universe so far removed from or and so varied in their natures, until you have sentinized and know yourselves. After that, we may perhaps believe

. eea you hold forth on subjects but before you establish who your

when se do not think that you ill ever become capable of acting Mc,- ' or ;rusa-

„ i e eesses mother matters.[26]

..a Burekhardt ill ..Jt i:n Inuddmi- a modern exponent of metaphysics. expresses the matter explicitly "all [sacred science], is contained definitively in our own soul, whose lower ramifications are identified with the realm of the senses but whose root reaches upto pure being and the supreme essence, so that man grasps in himself the axis of the cosmos. He can 'measure' its whole 'vertical' dimension, and in this respect his knowledge of the word can he adequate in spite of the fact that he will necessarily be ignorant of much or even nearly all of its 'horizontal' extension. It is thus perfectly possible for traditional cosmology to convey, as it does, a knowledge that is real and comparably master and more profound than that offered by the modern empirical sciences, even whit meter training childish, or more precisely 'human', opinions about realities of the physical order."[27]

This last point is the crux of the matter. We have to keep in mind that not only the Greeks and Muslims, but all traditional cultures possessed, metaphysical knowledge: there is no that if they were to have learned about modem science they would not have judged it truly worthy of being called a science at all.

The Myth of Neutrality

It is the almost universal opinion of Muslims that modern science is objective neutral and harmless. This is an insufferable irony because modern science a fabne of superstion, and these superstitions are not childish and harmless like some of the supersuuons for which Mr. Siddiqui has ridiculed the Greeks, but, rather, they are of the utmost consequence and of the most inordinate dimensions as we will now consider.

Those who have undergone scientific indoctrination cannot think of science as any-thing but "factual", "disinterested" "objective" and more than that. it has become the very measure of "objectivity" for they attribute on science such a high and unquestionable status that if something can be called "scientific" then it follows, that It is disinterested and factual. Further, science is universally regarded as merely a tool in the hards of then may use it for good or bad, but in itself it is believed to be nee tail' it is frehrs r, i .lira its study is harmless and that it has no connection with philosophy and ethics so what we are going to say will strike many as radical; and queer, for we hiss to point out that alpha and omega of science is philosophy.

The cornerstone of the entire scientific edifice nits the individualist outlook which vited man' to disregard his utter subordination to God and to neglect his singular duty to worship and obey God. Having bestowed upon man a new "freedom" indivualism then invited him to consider what he might do for himself in this world not as a means to Mal his religious duty, but as an end in itself. Franchs Bacon, one of the t the:., „t wive, in England, (1561 — 1626) called upon man to dedicate himself to mankind which could best be served by the control and exploitation of nature. His summons was milled "The Great Insutaration" which, in

effect, was the rally call of secular humanism. It would more aptly have been called "The Declaration of the Kingdom of Man."[28]At the same time by Des cartes[29] announced this kingdom on the continent and the whole world rallied to his call Oblivious to Heaven, they set about busily analyzing the sensible world and in short order also announced the supremacy of that faculty which was their tool of analysis reason. Reason, however, was not adequate to apprehend the spiritual world which was at first denied and consequently, with the advent of materialism, explicitly denied The empirical science which is the outcome of illegitimate obsession with the sensible world. is marked, firstly, by the absence of metaphysical knowledge, that is, of universal principle, Cavan). and, secondly, by the negation of all knowledge which is not scientific. Science wilfully restricted its purview to the material world and then declared itself independent of any principles of a higher order.[30] For this reason science has been called "ignorant his knowledge"[31] — it is knowledge of a type, but banefully limited.

Recognizing current notions about the precise significance of principles, it would be imprudent not to clarify that real principles are intellectual truths of supra-formal order ('alam-i-tanzih)[32] they are not subject to analysis, and reason has no access to them It they are perceived directly in spiritual contemplation. Real principles arc far removed from those natural laws of the physical world which because of there generality profane science terms principles. Neither are they the moral or social ideals that pass so commonly for principles today[33] real principles are so far removed from all such trivia that the deniers of the spiritual reality can have no idea of w but they really are.

Science consigned itself to the n etculous collection of

detail i' daspersed itself n multiplicity Recanse of its analytic obsession with endless subdivision and rash a i r it doomed itself to ever more minute detail without any hope of synthesizing the prolified production of data into any ultimate meaningfulness for lack of a higher principle[34]

Experimentalism

Integral and genuinely disinterested knowledge concerned itself with the essential nature of things as apprehended intuitively through their implicit symbolism. Compared to such knowledge the factual knowledge of science is of no real significance and no matter how much more data might be acquired there is no possibility of a deepening of understanding so long as intellectual vision is rejected.[35] Theories hypotheses do not in any even remotely correspond to the metaphysical principles for the explanations they can offer relate only to the sensible world.[36] The instant they venture to explain anything in ultimate terms, for example, the origin of life, or the nature of intelligence, they become unscientific, for these things are beyond the reach of science. Only intellectual intuition is adequate to their understanding.

Moreover, theories can never be proved by facts because the same facts can always be explained by different theories. Rene Guenon points out that "certain of the pioneers of the experimental method, such as Claude Bernard, have themselves recognized that they could interpret facts only with the help of `preconceived ideas', apart from which they would remain 'bare facts', devoid of significance or scientific value.'[37] In the West today a segment, of the scientific community has recognized the inescapable subjectiveness of the scientific method realizing that it is not so much a

question of seeing what is there as a question of seeing what they want

A nobel prize winner for Medicine writes:

"Unfortunately, we in England have been brought up to believe that scientific discovery turns upon the me of a method analogous to and of the same logical stature as deduction, namely the method of induction – a logically mechanised process of thought which, starting from simple declarations of fact arising out of the evidence of the senses, can lead us with certainty to the truth of general laws. This would be an intellectually disabling belief if anyone actually believed it.[38] Consequently, some of the most able scientists have abandoned the inductive method and have formulated theories on the basis of qualitative factors like symmetry, harmony, and search for unity.[39] We will shortly have occasion to return to this point.

The Superstition of Facts

What is not to be denied is the incredible development of science "along purely material lines" as Rene Guenon has put it. This development can never have more than a relative value; moreover, it is necessarily accompanied by what Rene Guenon has called "an intellectual regress", the cause and nature of which are concisely expounded in his article "Civilization and Progress" which appeared in the April–June issue of Iqbal Review. The immense applicability of science was something which the individualist spirit welcomed with a fulsome applaud, for the cardinal statute in the Constitution of the Kingdom of Man is comfort The fantastic results of technology has been the conscious or unconscious measure of science's validity and the reason for its prestige. The impressive results have only been possible on account of

science's meticulous attention to detail and its accurate assessment of facts. These qualities quickly earned for science the reputation as "objective", "disinterested" and "factual". In short time the adjective "scientific" became synonymous with these words.

But science is not only facts. As we have pointed out, it implies a world-view; and further, it weaves theories about matters whose answers are not to be found in the physical world, like the origin of the universe and life, and the nature of consciousness and intelligence. Further the humanities which are the outcome of the quantitative technique transposed to the social realm offer answers about the nature of our inner selves. They pretend to have knowledge for the health and happiness of our souls, about the duty of man, the health of society, about the nature of religion, etc. In short, science purports to be the key to ultimate truth, and all of its presumptuous theories are stamped "scientific" and blindly accepted by the populace no matter how fictitious and impossible.

This is what can fairly be called "the superstition of facts" to quote Rene Guenon.[40] If we might be permitted a brief digression we will cite a prime example of it; namely, the theory of evolution. Let us hear now Jean Rostand, himself a distinguished biologist and evolutionist referred to this myth:

I firmly believe – because I see no means of doing otherwise – that mammals have come from lizards, and lizards from fish; but when I declare and when I think such a thing, 1 try to avoid seeing its indigestible enormity and I prefer to leave vague the origin of these scandalous metamorphoses rather than add to their improbability that of a ludicrous interpretation.[41]

What in short lean Rostand advocates is an act of faith.

Given the "enormous indigestibility" of such an act, as he himself admits, one might fairly wonder why he cannot call upon himself to put faith in God and the spiritual origin of the world.

Recognizing that this theory stands in good stead with most Muslims, given that a whole slew of apologists has appeared enthusiastically trying to reconcile this theory with religious doctrine,[42] we must at least point out that a staunch but firm majority of full-fledged scientists in the West has rejected this theory utterly, on purely scientific grounds. We can not digress further on this important theme in this article, but at least we can draw attention to the existence of the vocal counter-clique within the community of biologists itself.[43]

Ziauddin Sardar, himself a scientist, remarks in the article he contributed to Islamic Science, "Islamic Science or Science in or Islamic Policy: what is the difference":

But scientific endeavour can be blocked by 'dogma and superstition' which do not have to come from traditional religion but can come from science itself. The belief in the pure objectivity of science and its absolute truths are no less superstitious for being modem, and the validity of the Darwinian Theory is no less a dogma for it being a fundamental tenet of belief for biologists. The appreciation of the 'dogma and superstition' barrier goes back at least to the Enlightenment, which in the event, simply substituted one set for another. (p. 32)

Having said so much, it is quite in order to return to Mr. Siddiqui's article in which he was discussing the development of science and ridiculing the ancient and medieval scientists. Let us suppose a hypothetical situation in which Mr. Siddiqui were to be confronted by the Greeks, or any other people

who dimensions of reality, and he was to demonstrate to them that their peculiar views about the mud of the Nile transforming itself into fishes and the like were sheer superstition, while at the same time informing them everything about modern science. We venture to predict that the Greeks would have been utterly stunned to hear that there was something which people called a science yet it disacknowledged the very principle of existence. So, too, would they have been astonished to learn that this science denied man the intellectual vision which the Greeks considered to be the real worth of man. Not would they have failed to immediately reply that it was not for him to criticise them for making factual errors about the material world when he endorsed a science which didn't just make a few mistakes about spiritual reality, but denied it altogether. Since for the Greeks it was intuitively manifest that intelligence was the cause of the sensible world, they could not but have been impressed that modern science was a nefarious superstition. More-over, if Mr. Siddiqui were to inform them that this science purports that intelligence arose from slime and man from apes they would have laughed all the way back to Hades.

The World as Symbol, Not Fact

Mr. Siddiqui recounts in the same article that Copernicus caused an intellectual upheaval in Europe when he proclaimed that the earth in fact moves about the Sun. M. 46) He proudly informs us that Copernicus had benefited from Muslim scholars who had known about this before him.[44] What Mr. Siddiqui does not tell us is that although Muslim astronomers like al-Biruni knew about the earth's motion around the Sun they suppressed this knowledge and

continued to follow the model proposed since ancient times by the Greek Ptolemy in which the earth was envisioned as the centre of the universe. This is most significant and it is in order in this connection to quote Dr. Nasr at length:

This later tradition of Islamic astronomy continued to correct the mathematical short-coming of the Ptolemaic model, but it did not break the bounds of the closed Ptolemaic system, which was so intimately tied to the medieval world view. It is true that many of the later Muslim astronomers criticized various aspects of Ptolemaic astronomy. It is also certain that such astronomers as al-Biruni knew of the possibility of the motion of the earth around the sun; and even — as al-Biruni proposed, in his questions to Avicenna — the possibility of an elliptic rather that[circular motion of the planets. But none of them did, nor could they, take the step to break with the traditional world view, as was to happen during the Renaissance in the West — because that would have meant not only a ration I n astronomy, but also a upheaval in the religious, philosophical and social domain. No one can overestimate the influence of the astronomical revolution upon the minds of men. And as long as the hierarchy of knowledge remained intact in Islam, and scientia continued to be cultivated in the boss in of sapientia, a certain "limitation" in the physical domain was accepted in order to preserve the freedom of expansion and realization in the spiritual domain. The wall of the cosmos was preserved. in order to guard the symbolic meaning which such a walled-in vision of the cosmos presented to most of mankind It was as if the old scientists and scholars foresaw that the breaking of these walls would also destroy the symbolic content of the cosmos, and even obliterate the meanine of "cosmos" (literally order) for the great majority of

men, for whom it is difficult to conceive of the sky as some incandescent matter whirling in space and at the same time as the throne of God. And so despite all the technical possibility the step toward breaking the traditional world view was not taken, and the Muslims remained content with developing and perfecting the astronomical system that a been inherited from the Greeks, Indians and Persians, and which had become fully integrated into the Islamic world view.[45]

In the passage just quoted Dr. Nasr describe that Muslim intellectuals were men of too much insight and prudence to break the traditional picture of the cosmos which had prevailed since ancient times. Muslim, scientists realized that Grid had made the world and all that is in it as a symbol to tealy, man about Himself and the Unseen (al-ghayb). Whatever was normally before, our senses was symbolically sufficient. Thus if it appeared to man on earth that the Sun moved around the earth and that the earth was the centre of the creation this was the perception on symbolically correct and efficacious. Maulana Mahmud Jonpuri, a contemporary Aurangzeb, wrote in his Shansi Bazigha that it is not phenomena which are important but symbols and he forbade changing the representation of phenomenon what he said explicitly a Catholic Cardinal said impiety, for when Galileo invited the Cardinal to look through his telescope' that he might himself see that the world moved around the Sun he refused to look and remanned silent; his silence was eloquent.

Dr. Nasr mentions in his article while discussing traditional astronomy that it has a history which predates the school of ancient Babylonia by millenia op. 19) Astronomical schools were developed by almost every people of the world including the Chinese, the Aborigiues of Australia and the Aztecs and Mayas of ancient Mexico and Central America Dr.

Nasr remarks:

All of these schools remain faithful to the study of the heavens as they appear to man on earth where in fact he is and not as they might appear to him were he to stand on the Sun or outside the solar System. That is why their symbolism is not it all logically affected by the Copernican revolution even if this revolution did in fact help to cause the eclipse of that knowledge to which traditional astronomy points in its symbolic aspect.

Besides practical considerations of agriculture and the like, the 'usefulness' of traditional astronomy was to enable man to orient himself in the cosmos with the purpose of preparing himself to journey beyond it.[46] the practical spiritual import of this aspect of astronomy is evident from Australian Aborigines descriptions of the heavens to the *Divine Comedy* of Dante. As tar as the great civilization of antiquity and the Middle Ages are concerned, however, it is the system of concentric spheres developed in two different fashions by the Greeks one by Aristotle and the other by Ptolemy on the basis of the works of their predecessors such as Eudoxus, which are of particular interest. These systems depict through their symbolism, the hierarenic nature of cosmic reality and man's place in this hierarchic scheme as a being located centrally but on the lowest level of reality, veiled from the splendour of the Divine 'Throne by the levels of cosmic manifestation sympathized by the various spheres associated with the planets and the used stare (p 19.)

Sages and "Charcoal Burners"

Mr. Siddiqui briefly describes the careers of some of the outstanding Muslim scientists. He tells us how mush the Muslim carried out experiments, what discoveries they made

and what were the useful applications. As we had occasion to remark, the spirit of traditional science were symbolize: their real concern is with the essences of things. The mundane aspects of the tradition sciences were peripheral and accidental, but it is precisely these aspects that have impressed the modern spirit. What Mr. Siddqui is presenting is a supposed evolution of science to which Muslims made early and brilliant contributions. Umar Khayyam and Jabir Ibn Hayyan figure in this pafade of personalities as if they were science's first "big stars". This is inexcusable for both these figures were versed in the Islamic intellectual tradition. The sciences of astrology and alchemy which they took interest in were the antithesis of the modern sciences.

Astrology and alchemy for several centuries now have universally been considered to be the crude and superstitious forerunners of modern astronomy and chemistry are profanizations of these sciences and their parody. The smallest part of these traditional sciences soars beyond the reach of moderns who are ignorant of the real impart al the intellect and art metaphysics. Dr. Nasr describes in his article (p. 19) that astrology originally comprised astronomy as well, but as the symbolist spirit became increasingly eclipsed the science bifurcated.[47] On the one hand, astronomy become concerned with the outward phenomena as facts; while on the other hand, astronomy became concerned various stages of degeneration[48] so that its essential nature finally became lost altogether leaving only a derelict[49] of itself: The attempts to resuscitate astrology in recent times have concerned themselves with the restoration of the most inferior aspect of the ancient science, namely divinization.[50] Formerly and essentially, astrology was a science reflection immutable truth. The object of its study was spiritual realization as Dr. Nasr art

its study was spiritual realization as Dr. Nasr discusses in some detail in his article (pp. 19-20). Alchemy like astrology considered the contingent world as "a consequence and outward manifestation art what belongs to a higher order."[51] Its teachings, as astrology's, were constituted in accordance with the laws of natural symbolism with the intention that their study should effect "a transposition into the purely spiritual realm.[52] At the risk of prolonging this essay too much, we will again quote Dr. Nasr at length to give a concrete glimpse of a traditional science and its associated symbolism. Hopefully it will suffice to give a taste of how integrally intellectual is involved in traditional science:

In a sense the terrestrial image of astrology may be said to be alchemy which also deals with those "intelligent" forms of matter called metals. That is why metals in fact possess the same symbols m alchemy as their astrological counter-parts (for example Saturn lead. Sun, gold, Moon, silver).[53] But traditional alchemy is not only a science or art which seeks to transmute various substances and metals into gold. Alchemy is one of the most extensive encompassing of the traditional sciences it is related at once to cosmology. Medicine the science or substances and psychology.[54] Alchemy, I like astrology, is based on a primordial vision of the earth as a hiving being in whose bosom and with the help of celestial influences grow the metals which send outside of the natural order. The metallurgist is like a gynecologist who delivers the metal from the womb of the earth and who, with the aid or spirit forces is able to quicken the process by which this event takes place.[55] The major traditions of alchemy namely the Alexandrian with its roots in the ancient Egyptian tradition, the Chinese, the Indian, the Islamic and the westerns all grew out of this ancient science her once again art if we remember

that must traditional sources both Arabic and Latin, call it art – *sina ah or ars*). These later traditions, despite the differences between them and including the Chinese, which emphasizes the gold-making juice as the elixir of immortality,[56] all shared the basic principles which saw metals as special states of 'matter' with a common substratum and ready to be transmuted into the highest state which is that of gold provided the philosopher's stone be present. But they also knew that this external transmutation was no more than support for that inner transformation of the lead of the soul into the gold which alone can resist the withering influences of this world. They were also fully aware that this inner transformation was only possible through the presence of the spiritual master who is the real philosopher's stone.

This does not mean that alchemists did not make use of external substances for support as so many Hermetic authors assert. Alchemy was certainly a way of ennobling matter, its relation to sacred art But this also means that alchemy is not just a prelude to chemistry, that it is a science of the soul in its relation to the cosmos and making use of external transformations for the sake of that inner transformation which is the ultimate goal of all traditional sciences. [57] (p. 21)

Rene Guenon also recognized the legitimacy of alchemy' and, further, he demonstrated that alchemy has little in common with modern chemistry[58]modern chemistry is a 'corrupt residue of the alchemical tradition.[59]' The provenance of chemistry is the degenerate version of alchemy which was practiced as early as the Middle Ages by men who were impervious to its symbolism. These people understood the science literally, comprehending in it only a manipulation of matter. They earned the disdain of their symbolist counterparts who referred to these debasers of the science as

"blowers" and "charcoal burners".[60] The outstanding offender in Islam was the heterodox physician-alchemist Zakariyyah Razi.

Dr. Nasr discusses briefly in his article several other traditional sciences: cosmology, language, arithmetic, music, geometry, medicine, pharmacology, natural history and sacred geography.[61] If it were not for a shortage of space, we could compare the traditional perspective with the modern perspective in the foregoing sciences, as we did in a cursory fashion with astrology and alchemy, and show that in every case the modern counterpart is a derelict residue of a once transcendent science the nature of which modernist thinkers are far from even imagining Dr. Nasr explains in his article that all traditional sciences related the contingent facts with which they were respectively concerned to "higher planes through the language of symbolism". (p. 14) The eclipse of the symbolist understanding in modern times in the Muslim world, as well as the West, has rendered the traditional sciences incomprehensible to almost all of our contemporaries, Muslims as well as Westerners.

Wisdom or Magic

The views we are advancing about modern and ancient science will no doubt strike those have received indoctrination in the dogma of progress as totally outrageous, and our opinion is likely to be branded as "anachronistic". People, including the average Muslim, generally imagine our era as a new age, an age of advancement and enlightenment They make the mistake of judging the worth of this era in light of material considerations instead of spiritual and intellectual considerations. The belief in an essential progress stands in contradiction to the teachings of Islam which

unequivocally insist on the inevitable degeneration of mankind. One of the salient motifs of the Qur'an is the degradation of peoples and their civilizations, with the passage of time, by which they earned eventual destruction or, in the case of the Jews and Christian, the abiding curse of Heaven:

Is it not time that the hearts of all who have attained to faith should feel humble at the remembrance of God and of all the truth that has been bestowed [on them) from on high, lest they became like those who were granted revelation aforetime, and whose hearts have hardened with the passing of time so that many of them are now depraved? (Qur'an 57:16, Trans. and interpolations by M. Asad.)[62]

The Prophet (SAAS) warned that the degeneration which the foregoing Qur'anic verse, deprecates was also an inevitability for Muslims: "You will follow the people before you, foot for foot' inch for inch, to the extent if they crawl into a reptile's hole you will crawl in after them.

The Qur'an swears that mankind shall be divided into three sections on Judgement Day: among them the foremost (sabiqun) who are those "who were always drawn close unto God"; then it declares that they are "a good many of those of olden times, but (only) a few of later times".[63] Muhammad Asad, the translator quoted here, aptly comments in a footnote: "The above stress on the `many' and the 'few' contains an allusion to the progressive diminution, in the historical sense, of the element of excellence in men's faith and ethical achievements."[64] When the Muslims of the first generation complained to Anas of the atrocities which Yusuf al-Hajjaj was perpetrating, he told them a hadith: "Show endurance not an age will come upon you except will be followed by a worse age till you meet your Lord.[65] In

addition there are a whole class of ahadith concerning the occurrence of the Great Turmoil (fitnah) which will herald the last hour. This turmoil is characterized in particular by ignorance, social upheaval, injustice, massacre, and profanity.

Apart from contradicting Islamic tradition, the pretension of progress is an inanity, and an offence to genuine intellectuality. Rene Guenon has shown its preposterousness in a chapter in East and West, "Civilization and Progress". In this chapter he calls "Civilization" and "Progress" the twin idols of modernity and he elaborates:

Certainly "Progress" and "Civilization", with capital letters, may be very effective in certain sentences as hollow as they are rhetorical, most suitable for imposing on a mob, for which words are rather a substitute for thought than a means of expressing it, thus it is that these two words play one of the most important parts in the battery of formulae which those "in control"[66] to-day use to accomplish their strange task of collective suggestion without which the mentality that is characteristic of modern times would indeed be short-lived. In this respect we doubt whether enough notice has ever been given to the analogy, which is none the less striking, between, for example, the actions of the orator and the hypnotist (and that of the tamer belongs equally to the same class); here is another subject for the psychologist to study, and we call their attention to it in passing. No doubt the power of words has been more or less made use of in other times than ours; but what has no parallel is this gigantic collective hallucination by which a whole section of humanity has come to take the vainest fantasies for incontestable realities; and, among these idols of modern worship, the two which we are at the moment denouncing are perhaps the most pernicious of all.[67]

This is not the place to further consider the absurdities of the notion of progress. We refer the reader to Rene Guenon's article, cited just now as well as his other writings and the writings of S. H. Nasr, H. Smith, E. F. Schumacher, Lord Northbourne and G. Eaton.[68]

Some may he thinking that our opposition to the idea of "progress" and modern science together with our exoneration of ancient science is all a very romantic and exotic mystique to be conveniently discarded as mystical sophistry or magic mongering or my theology or neurosis or reactionism. They would fully agree with the following supercilious dismissal of the symbolist perspective:

Some rare Aristotelians still perhaps think they can attain intuitively, though some illumination by the active intellect, the essential ideas of the things of nature, but this is nothing but a lovely dream…[69]

This remarks was made by a modern theoretician of science. He goes on to make an exultant remark to which all champions of modernism would agree:

"The essences of things cannot be contemplated, they must be discovered by experience, by means of a laborious work of investigation."

Imam al-Ghazzali answered a similar pretension centuries ago in Tahfut al-falasafah: "The secrets of the kingdom can not be scanned by means of such fantastic imaginations so these; Allah gives none but His Prophets and Saints to scan them and that by inspiration not by demonstration."[70]

Titus Burckhardt who quotes the theoretician above also gives his own eloquent rebuttal:

To this a Plotinus, an Avicenna, or a Saint Albeit the Great would answer that there is nothing more evident in

nature than the essences of things, since these manifest themselves in the very 'forms'. Only, these cannot be discovered by a 'laborious work of investigation' nor measured quantitatively, but the intuition that; grasps them leans directly upon sensory perception and upon Imagination in as much as the latter synthesizes the impressions received from outside.[71]

Rationalist Presumptions

In an editorial given in Islamic Silence, "From Chaos to Order". Mr. Mohammad Zaki Kimani. the editor of the journal, calls for us to "broaden the scope of progress to provide for the overall well-being of man' and "to harmonize in material prosperity with primordial truth" (p. 71) further, he tells us in another article "hew Ideologies in Science", that the philosophical foundation of S & T 'Science & Technology is still taken wrongly he means] as sacrosanct and is still considered neutral, objective and universal… an ideological group can make use of it without seriously affecting the basis of its civilization." its. 71) This raises our hopes for we anticipate an apt and profound criticism. However, he is soon to show us that he does not understand what Islamic epistemology actually implies, nor what is necessary for the real well-being of man, it wherein and how science is not objective and neutral, and how actually it powerfully corrodes the Islamic personality. In his second article he tells us that science is not neutral simply because it is directed by the politico-industrial complex this observation is anticlimactically: Kirmani completely fails to understand that science is no neutral and objective because of its rationalist, humanist, and evolutionist bias. Having put in question whether science is sacrosanct, he later unequivocally reveals

that he doesn't actually doubt its disinterestedness, but merely deplores its misuse by technocrats who only care to raise the standard of living without considering "the overall well-being". He makes it quite clear that this "overall well-being" is to be construed in economic and social terms. There must be a more "equitable distribution of the advantages of S & T 71) and scientific and technological development must be guided by "a new socio-economic and political order". (p. 71) All this betrays a rationalist, humanist pretension which imagines that the ills of society can be remedied by establishing virtuous leadership, by curing society according to prescriptions prepared by humanists and by giving the most socio-economic advantages to the most people. Kirmani is talking in terms of society and state and this amounts to denying the primacy of the individual. This is the universal and sovereign error of modernity, for this shift in emphasis promotes secularization in a powerful way as we will presently clarify.

It needs to be asked of Kirmani and those who share his views why they are so pre-occupied with how to Islamize science or how to use it in our best interest when they have not even considered the question of whether or not we need science at all. Kirmani presumes beforehand that science is a reality which we must at all costs assimilate. It we ate really after truth, WC must discard the usual individualist and humanist assumptions and consider if we were really put on this earth to make ourselves as comfortable as possible (taking time out to occasionally thank the Creator for giving as the power to dominate earth), for the Islamic revelation emphatically declares that the earth was made subject to us not that we could do as we please, but only as a means to the end that we worship God.

"All that is in this world is cursed except the

remembrance of God and what is in his way and the learned and seekers of learning.[72]

How futilely people pander the rationalist dogma nowadays. We are being told from every quarter that human understanding may presume to determine, social, economic and political goals to which we can reorientate religious thought; which is to say, in effect, that reason stands in judgement over religion. However, this secularist premise powerfully under-mines the order and security that society normally should provide. (Lai Eaton has made the following astute observation:

…we still have to learn that a good and ordered society will never be built by those who make the creation of such a society their principal aim; the truest creative work is done as it were absentmindedly and a and society can only arise as a by-product of action, thought end feeling which aim beyond the contingencies of human life, having their goal in eternity. No mane achieved sanctity through wanting to he a saint; but 'seek first the kingdom of Heaven la helical quoted is not only a maxim for saints: it is an essential condition of all political action if that action is to escape the fruitless and monotonous round of chasing its own tail in an increasingly narrow circle.[73]

Those who believe that the need of science is a foregone conclusion are those who have accepted the basic tenets of secularist humanism or what can be called humanitarianism of which Frithjof Sehuon writes-Philosophical humani tartarism which in the long run in atheistic starts from the erroneous nation that man is by definition good and that they are thus none that are lundamentalh evil; that there a no values incorruptible incompatible with earthly well-here and that what contradicts the human individual and his comforts

cannot be good. True charity may sometimes run contrary to the immediate interests of men and also to earthily well-being.[74]

Most of the intellectual contusion of modernity would resolve itself if we would only ask the right questions and orientate ourselves properly and the first question is she Divinity: "He is the first and the last" Qur'an 57 4) Islam and all other religions declare categorically that the primal duty of man is to worship God and in that is our only fulfillment, for man was created with a raging thirst for the Divine.[75] Since this is the case the know-ledge of how to worship God is what is incumbent upon as first: "Seeking knowledge is obligatory for every Muslim man and women."[76] Al-Ghazzali shows with impregnable logic that obligatory knowledge (fard'ayn) pertains to our obligations to God which includes, not only how we should worship God, but also the avoidance of sin, including the hidden vices like pride, greed and envy.[77] Some knowledge is optional or conditionally mandatory like medicine but it is blameworthy to acquire this knowledge before knowledge which is fard'ayn. A most significant consequence follows from this theological premise: the education of the individual which means pre-eminently the purification of the soul (tazkiyyali naffs) and the cleaning of the heart (tasfiyyah. qalb), is more imperative than social and political reforms. Notwithstanding the benefits these latter may furnish. If a society does not cultivate virtuous and knowledgeable individuals, it will be corrupt in spite of what en-social political or economic reforms may be forced upon it from above as it were for it is necessary to build from the bottom up, not vice versa.

Further, some knowledge is useless This will be hard for modernist Muslims to accept because they have become quite

accustomed to glorify every idle academic endeavour and even adduce hadith to sanction their pursuits - how often we hear modernists quoting the hadith 'Seek knowledge even onto China"[78] They conveniently r forget that the Prophet (SAAS) frequently sought refuce in God from useless knowledge.[79]

The thesis that knowledge can he useless and blameworthy is sure to summon a barrage of obligations from secularist and modern's, quarters. These objections have already been confuted by al-Ghazzali who centuries: we hobbled the errant enterprise of rationalism:

"Do not then be a seeker of sciences which the law has pronounced blame-worthy and against which it has warned. Rather. be steadfast in emulating the example of the companions and follow nothing but the usage of the Prophet (SAAS), for safety lies in obedience, whereas in adventure and aberration lies danger Do not also boast much of your so-called opinion, reasonable judgement, proof and evidence, as well as the claim that you investigate into things in order to find out and determine their true nature and that there is no harm in the pursuit of knowledge. Truly the harm that might befall you there from would be greater than the benefits. Many are those things whose knowledge is harmful to you the extent that it might ruin you in the hereafter unless God should interests with his Mercy."[80]

If we don't conform to the exigencies of our theomorphic nature, we will not find meaning or stability or repose anywhere else. The Prophet (SAAS) said in a hadith:

The son of Adam has a piece of his heart in every ravine. Whoever chases after all the pieces Allah does not care in which ravine He destroys hint. Whoever trusts in Allah, He will suffice him for all the pieces. (Ibn Majah: `Abwab al-

Zuhd: Bab al-Tawakkul wa I-Yaqin').

What holds for the individual, holds for society since society is the sum of its individuals. Virtue must be instilled in society ab in tra, not otherwise.

Al-Ghazzali Needs Revival

Ironically Kirmani in a third article, "Ghazzali Needs Revival", (p. 83) has called for a revival of Al-Ghazzali precisely because he believes that AI-Ghazzali was quite in favour of the sciences. AI-Ghazzali fully appreciated that the sciences were exact He chastises those religious apologists who sought to disprove mathematics as untrue and warns them that this attitude does more harm to religion than good. AI-Ghazzali pointed out that people who know the incontrovertible nature of mathematical proof will imagine that the "foolish" arguments of religious votaries against science reflects an unreasonableness inherent in the religion itself and so will come to doubt religion.[81] People, however, jump to the conclusion that AI-Ghazzali therefore supported the sciences. Indeed, Kirmani's "proof" of Al-Ghazzali's support of science is the fact that Al-Ghazzali was of the view that if an astronomical observation or a mathematically derived principle appears to contradict a hadith, the latter should be rejected". (p. 83) The inconsequence lies in the conclusion that because Al-Ghazzali knew science was factually correct he supported it This is to ignore that science also propounds a world-view, and it is in this respect that Al-Ghazzali opposed the sciences as is shown from the passage quoted above Ziauddin Sardar points out that Ahsan Jan Qaisar "particularly singles out Al-Ghazzali and argues that his epistemology will `lead all scientific investigations into a cul-de-sac'." (p. 38) Sardar realizes what Qaisar says is correct,

nonetheless, he quite applauds the wisdom of Al-Ghazzali "for forseeing the course that rationalism untamed by a framework of values could take and for developing an epistemology which cannot be surpassed even today for its intellectual rigor and relevance." (p. 38) Although Sardar rightly supports Al-Ghazzali, he does not bring out clearly why Al-Ghazzali opposed the sciences. Al-Ghazzali knew that the factual reliability of science and the exactness of mathematical proofs beguiled the scientists into believing that the agnostic and materialist philosophy which the philosophers propounded must also he correct since these intelligent men were the founders of the other sciences:

This is a great drawback, and because of it those who devote themselves eagerly to the mathematical sciences ought to be restrained Even if their subject-matter is not relevant to religion, yet, since they belong to the foundations of the philosophical sciences, the student is infected with the evil and corruption of the philosophers. Few there are who devote themselves to this study without being stripped of religion and having the bridle of Godly fear removed from their heads.[82]

A few remarks are in order here. In Al-Ghazzali's day the philosophical sciences refer-red to that decadent aspect of Greek thought which Muslim rationalist philosophers presented to the Muslim world These are distinct from the sacred Islamic science which we have been discussing. In fact, Al-Ghazzali has himself expatiated on several of the tradition al sciences elsewhere, including arcane sciences such as numerology and astrology, and has been criticized for doing so by people who did not see the difference between profane and sacred and so believed that al-Ghazzali publicly denounced certain sciences but privately endorsed them.[83]

AI-Ghazzali s Theory of Knowledge

As we mentioned, Kirmani has called for a revival of Al-Ghazzali in the quite mistaken belief that Al-Ghazzali was a supporter of the sciences. However, this is not the only point in which Kirmani misrepresents Al-Ghazzali for he also claims, as have the orientalists and even certain Muslims of late, including the poet Muhammad Iqbal,[84] that Al-Ghazzali anticipated Descartes and the modern skeptics in advocating that "systematic doubt" was the key to objective knowledge:

"It was really ironical that his critics overlooked his method of doubt which was echoed by philosopher – scientists in the West as well." (p. 83)

Ziauddin Sardar points out in his article in Islamic Science (p. 32) that during the Enlightenment the European philosophers were looking "for new attitudes towards knowledge. From science they acquired the skeptical attitude of systematic doubt…" The philosophers were impressed by the exactness of the sciences and the soundness of its proofs. In other words they were mesmerized by the mystique of facts, and they wanted to imitate as much as possible the ways of the scientist. Knowing this we can get an idea why Kirmani, whose stance is fundamentally "scientistic", himself endorses doubt as a system. His at-tempt to show that Al-Ghazzali has sanctioned the method of doubt is a sanctimonious at-tempt to present a profane mode of thought as intrinsically religious.

A thorough refutation of this tendentious view was given by Osman Bakr, "The Meaning and Significance of Doubt in AI-Ghazzali's Philosophy".[85]What Bakr shows in that article, which meticulously examines Ghazzali's concept of doubt as it is presented in Munqidh Min al-Dalai (Deliverance from

Error), is that Ghazali never doubted the existence of certainty.

AI Ghazzali himself writes of his intellectual crisis:

The disease was baffling, and lasted two months, during which I was a skeptic in fact, though not in theory nor outward expression. At length God cured me of the malady; my being was restored to health and an even balance; the necessary truths of the intellect became once more accepted as I regained confidence in their certainty and trust-worthy character.

This did not come about by systematic demonstration or marshalled argument, but by a light which God most high cast into my breast That light is the key to the greater part of knowledge. Whoever thinks that the understanding of things Divine rests upon strict proofs has in his thought narrowed down the wideness of God's mercy.[86]

This statement in itself is enough to confute the view that Al-Ghazzali advocated the skepticism of the profane modern philosophers who doubt the existence of supra-rational knowledge and even the existence of God. Al-Ghazzali's doubt concerned only how to obtain infallible knowledge. He was certain of its existence, but in doubt about how to obtain it. Therefore, he set about examining sense impression and then reason finding both of these sources of knowledge devoid of the certainty he was seeking.[87] His reason left him no choice but to postulate a supra-rational, intuitive faculty capable of the direct vision that is spoken of by the Sufis[88] and indicated in ahadith, for example, the famous and frequent prayer of the Prophet (SAAS) "Our Lord shows us things as they really are."[89]

As we just saw above, Al-Ghazzali had an experience of this type of knowledge that removed his doubt. The real

significance of Munqidh Min al-Dalai is that it furnishes an incontrovertible argument "with a view of impressing upon the rationalists that Islamic epistemology affirms the existence of supra-rational perceptions as the real key to knowledge."[90]

Al-Ghazzali emphasized this for the rest of his life.

Mystifiers, Deviants, and Myth-Mongers?

Ironically, Kirmani has advocated the revival of Al-Ghazzali's thought, yet he is dead set against AI-Ghazzali's very methodology of knowledge, for he repeatedly inveighs against the supra-rational perception of reality. A prime example is the following garbled passage which clearly betrays his rationalist imperviousness:

And mystical experience, in fact, is nothing more than a psychological deviation based on the denial of sense perception. Thus a contrast between science and mysticism is evident "(New Ideologies on Science", p. 70)

Obviously, this is begging the question – but also it is a most unworthy recourse to the re-duetionist tactics of profane psychologists, and orientalists who would glibly sn for example, that even Jesus ISAAS) and Muhammad (SAAS) were given to psychotic hallucinations, or epileptic trances, or they starved themselves delirious - and in this wary they explained away their revelation (We seek refuge in God from it.) Kirmani goes on to say:

Mystical interpretation of science indicates a kind of mystification of science. It simply means going back from knowledge to speculation from science to mythologies. In the context of methodology it amounts to 'disbelief' in observation and experimentation- if this approach… is allowed to proceed it may emotionally satisfy a chosen few,

but it win adversely affect the growth of civilization and culture (P. 70)

This passage b also quoted from his article "New Ideologies on Science" which, judging from the authors or the bibliography: Franz Capra, E. F. Schumacher, Jonathan Schell etc; refers to the ideas of an emerging school within the community if Western scientists who have seen the inadequacy of the inductive scientific method and have invoked instead principles of a metaphysical and cosmological order.[91] "This school includes some of the host capable and celebrated scientists of the era.[92] Ur. Seyycd Hossein Nasr writes in Knowledge and the Sacred.

Most of the major discoveries of physics since Einstein's 1915 theory of special relativity was announced have been the result not of induction or empirical observation but the consideration of aesthetic factors, search for unity, symmetry, and harmony flew often have well-known physicists proposed a theory which they have supported because it was mathematically speaking more "elegant".' Why is there this search for unity in the study of the laws of nature and, in fact, the attainment of ever greater or higher stag of unity? What about the appeal of Einstein in 1905 and Dirac in 1929 to symmetry, leading respectively to the special theory of relativity and ant-matter, long before experimental evidence could he provided? Finally, how can one evaluate the so-called Pythagorean an period of modern physics covering the era from Bakr to de Broglie, when very important contributions trued on Pythagorean harmony and with full knowledge of musical harmony stern made to modem physics?

Dr. Nasr reminds us that metaphysical principles can never be proven through physics, but rather, ultimate

significance of physics earl be grasped only through metaphysics." That is why today in the community of physicists, quite a commotion is being made by men like F. Capra, author of *The Tao of Physics and The Turning Point* author of *wholeness and the Implicate Order*, R. Linssen, *Le Rouddhisme et le* Science Moderne; R. G. Sin. *The Tao of .Science*, M Talbot, Mysticism and the New Physics: E wigner, Symmetries and Reflections W. I. Thompson, *Passage About Earth.* (This last book describes the establishment of a research foundation for the study of Eastern Wisdom and Western Science.) For these men have realized that the principles by which the physical realm can be interpreted are beyond the physical realm. Further, they have realized that the inductive methodology is not adequate to the apprehension of these principles. These considerations constitute, for them at least, a new frontier.

Load Northbourne has described the dilemma which confronts the "frontier physicists".

What the physicists hone discovered is precisely this: the more closely one tries to isolate and to examine as such the material on which the ordering of the inverse is its it were imposed the more nebulous, chaotic, disordered, or causeless does that material appear to be this discovery (if that is the right word for something that has hitherto been axiomatic) has misled many people, including scientists and philosophers in to supposing that the universe as it whole is fundamentally chaotic: and nut Mc appearance of and old which life is the most complex development is attribution to fortuitous combinations of events that are in themselves to fortuitous. All that the physicists can rightly be said to have demonstrated is that the principle of order does not reside in the material aspect of things. That idea lacks novelty, to say

the least of it; it is indeed an essential part of all religious and traditional conceptions concerning the origin of the universe.[93]

These thinkers are, in fact, coming close to restoring a sacred aspect to science. That precisely is what a genuine Islamization of science must also endeavour to do land much more as well, however). It is therefore most disheartening to see Kirmani sanctimoniously dismissing these top echelon scientists, as myth-makers, deviants, mystifiers and debasers of science. They are Muslims natural allies in the onerous task of the de-profanization of modern science.

Sour Grapes

We may surmise the real reason Krimani opposes the "mystic" Western scientists from what he writes:

"What some scientists-turned-mystics have produced in the West does speak of their excellent creative power Nevertheless, the logic behind these works being based on a mystical interpretation of science, surpassed natural human apprehension and becomes an exercise in astonishment." (p. 70)

What Kirmani here admits is his incapacity for synthetic thought. Many men have not had this aptitude, but, nonetheless, they showed deference to those who were specially gifted by God and accepted their authority in matters which, because of their supra-rational nature, they could not fathom themselves. Kirmani however, with one sweep of his pen dismisses not only an elite cadre of some of the must distinguished scientists of the twentieth century like Dirac, Openheimer and Capra, but also the authority of the greatest scholars and saints of Islam who were mystics like Shah Waliullah, Ahmad Sirhindi, AI-Ghazzali, and Junayd.

The folly of the rationalist always is the denial of what he can not experience. His incapacity does not prove the impossibility of its existence; this takes humility to admit. The bane of the rationalist is immortalized in the fable, of the fox and the grapes:

A fox could not reach a. bunch of grapes high on a vine no matter how much he tried. Finally it told itself that it didn't matter since those grapes were surely sour.

Muslim Scientists Stubbornly Insist on Progress

There is among the modern "reformers", be they secularist or religious, a common pre-occupation with social and economic goals which are determined by mere human under-standing and amount to no more than the assertion of the individualist obsession, for worldly comfort sanctimoniously decked out in humanitarian polemic. We quoted Kirmani's invective against the mystic-scientists above, in which he ended by saying, in effect, that this new breed of scientists may derive some emotional satisfaction, but that their "debasement" of science "will adversely affect the growth of civilization and culture. Science and technology which, in fact, indicates the level of cultural progress, if neglected, would mean too big a price for spiritual satisfaction." (p. 70). Clearly he shows himself to be mesmerized by "Progress" and "Civilization" and we don't hesitate to affirm with Rene Guenon that these are the twin-idols of the twentieth century, nor should we hesitate for by them Islam is being undone.

Kirmani shares his material concerns with the Chief Editor of Journal of Islamic Science, Mr. Hisamuddin Farooqi, who also has no question about the necessity and worth of the study and development of science and

technology, but only hopes that Muslim scientists can "regain pride of place in the contemporary world". In other words he hopes that they can outdo the Westerners in their own profane science. Mr. Farooqi qualities himself insisting that Muslim scientists must instill a moderating element into their enterprise by adherence to the principles of "Reality, Truth, and Divine Guidance" (p. 6), but this essentially and significantly is as an afterthought Whether or not science may be inadequate for total truth is a question he doesn't consider. We note that under the "Aims and Objectives" of the association for whom the journal is a mouth-piece; namely, the Muslim association for the Advancement of Science, which their first aim is to foster the study of science anus, the young. Their further aims are elaborated under five additional points in all of which it is clearly the aim to propagate the sciences albeit they avowedly advocate modifications to make science meet "spiritual and moral requirements of human beings" and to make it consistent with the needs of "human nature" and to provide a foundation with a "religious term of reference." (p.86). These proposals are self-contradictory and, in effect, constitute impossibilities. Scientism engenders spiritual opacity; its influence stifles the intelligence and promotes secularism in a powerful way. When man is properly recognized as unique for his capacity of spiritual insight and vision and his supreme object is envisioned as the know-ledge of God, science will be seen for the "ignorant knowledge" that it actually is.

There have been of late four or five international conferences on the subject of Islamization of science and technology. In 1983 the conference was held in Islamabad and in 1984 in Kuala Lumpur. There was a report of the conference in Kuala Lumpur in Islamic Science (p. 87) in

which the details of past conferences were Oven and mention was made of various organizations concerned with this cause, including the International Institute of Islamic Thought in Washington, whose director is Mr. Ismail Raji al-Faruqi, author of a booklet tined Islamization of Knowledge.[94] The conference "affirmed" that since the Islamic sciences had a seminal influence on the present Western sciences, these sciences as they say) are already "very much Islamicized and therefore, Muslims should fully and readily appropriate it" (p. 88) by an adequate Islamization, envisioned as a super-imposition of Islamic values. Again material development is the unquestioned goal.

A genuinely Islamic science is constituted on metaphysical principles and these principles a are reflected in the laws and phenomena of nature: the aim of the study of nature is the direct knowledge of the principles.

In a certain respect it is impossible to transmute the spirit-denying monstrosities of profane science into Islamic Sciences by subordinating them to Islamic principles, because as Rene Quenon has remarked if these sciences were really referred to a principle they would for that very reason cease to be what they are — profane, Western sciences — and become what they should be, contemplative supports for understanding what is beyond the natural world. That is the would be become realistic and because they would not ignore the greater part of reality as do the profane sciences they would be super-eminently useful in salvific intellectual and spiritual terms and not merely in the trivial material sense in which usefulness is comprehended by individualists.

An authentic restitution of science implies such a profound change of perspective as will not brook the effete partisanship of pernicious myths like "progress" and

"civilization".

The Relevance of Islamic Science

The relevance of authentically Islamic science is not in answering the problems of the modern world which are due to modern man's "stubborn attempt to lire by bread alone" but in showing us that the problems are only apparent, the result of incorrectly posed questions. When the right questions are asked these problems are seen not to be problems in the first place.[95]

Z. Kirmani, Hisamuddin Farooqi, the International Institute for the Islamization of Science, the Muslim Association for the Advancement of Science, and almost every Muslim who has concerned himself with Islamizing education or science has had in mind consciously or unconsciously certain goals. Only after having determined the goal do they ask how religion might fit in, or how' they night go about pursuing these goals in a manner compatible with Islam. These goals are determined with the aid of mere reason and human under-standing. This is to set reason above religion. Rather, it is the very goal which religion should define and all our affairs should then be orientated in accordance with that goal.[96]

It is only in attendance "to the demands of his profound inner nature"[97], to quote Dr. Nasr. that man fulfils himself. God has said. "I only created man and *jinn* so that they might worship me." (Qur'an 51:56) The quintessence of worship is the remembrance of God (*dhikr*) for God has said: "…and establish worship. Lo! worship preserveth from lewdness and iniquity, but verily remembrance of Allah is more important." (Qur'an 29:45, trans-Pickthall). The Prophet (SAAS) insisted on the supremacy of remembrance: "One hour of

contemplation is better than sixty yea of prayer.[98] He (SAAS) indicated how vital it was under he said: "The world is accursed and all that is in, except the remembrance of God and what is in His Way and the learned and the seekers of Iearning."[99] It is the remembrance of God which must be our goal and everything else must be orientated to this goal. Through meditation man is afforded access to the realm of pure intelligence whose very substance contains all the metaphysical and cosmological principles.[100] However most men arc cut off from their spiritual root and lives in exile from the Intellect.[101] It is through revelation and spiritual practices dependent on it that access is restituted. The hay of gnosis (ma'rifah) is a comparatively direct method, while the study of the sacred sciences are assessorial adaptations of this central method It were as if God in his Mercy had cast not only a wide trawl net to catch men for Paradise, but in addition he cast smaller nets to catch men which, for one reason or other, may have been missed by the main tel.

In this connection in Al-Qistas al-Mustaqim al-Ghazzali (see the translation by Moulvi M. H. Babu Sahib in Al-Islam Oct/Dee. 1972, pp. 41-42) cites the following Qur'anic verse:

Invite to the Way of thy Lord with wisdom and beautiful preaching, and argue with them in ways that are best and most gracious. (6:25)

Thereafter al-Ghazzali renders the following exegis (tafsir): Know that those who are invited to Allah, the Lofty, with wisdom are a people, and those who are invited with beautiful preaching are another people, and those who are invited with argument that are best and most gracious are still another people Because, wisdom, if fed to those who are tit for being preached it will harm them like the harm of feeding of a suckling child with the feed of bird's meat And the

argument if employed with people of wisdom they will feel disgusted from it like the natural disgust of the strong adult from suckling out of human milk. And whoever employs argument in dealing with men of argument in the way that is not best, as you know it from the Qur'an, is like one who feeds an itinerant nomad (Arab) with the bread of wheat whereas he does not like anything other than dry dates: or feeds a townsman with dry dates whereas he does not like anything other than fresh unripe dates.

Dr. Nasr remarks in "The Role of Traditional Sciences etc": The traditional sciences are in fact one of the means of access to the world of light which they reflect on their own particular domain in conformity with their nature and field of application. It must not be forgotten that in India treaties (sastras) were written on the traditional sciences which are called Vedanga literally "limbs or powers of the Vedas. (p. 12)

The sacred sciences, while concerned with the contingent world ('alam-i-imkan) outwardly, were essentially concerned with an inner transmutation — a work performed on the soul in the hope of qualifying it for illumination. The principle is indicated by the words of God:

And so we propose these parables unto man, but none grasp their innermost meaning save those who [of us] are aware, [and hence are certain that' God has created the heavens and the earth in accordance with Ian inners truth: for. be-hold, in the [very creation) there is a message for all who believe [in (Qur'an 29:43-44 translation and interpellations by M. Asad).

It is the object of the sacred sciences to give us a revision of God in his works. The vision corresponds to metaphysical knowledge rtlnch Frithjof Schuon says "is like a divine seed in the heart: thoughts are only very taint glimmers from it.[102] it

is a knowledge which is one with its object, in other words it is a "knowing" which at once is also a "being"[103] Did the Prophet (SAAS) not Indicate this when he said, "A word of wisdom is the lost property of the believer. l e t him recover wherever he !Inds it."[104] Intellectual vision is nothing other than spirituality and it is the attainment of this which is more in cumbent upon us than anything else. To the extent that traditional sciences assist men to affair this they are useful.

It is intellectuality and spirituality that modern man needs so desperately, not hydro dams and airports and a better deal for the poor.

The modern reformer wants to reform science society, state, religion and everything except himself, and he tempts other to commit the same error so that reformers are springing up like a crop of weeds. Nothing is spared their reformations except their own selves. Dr. Nasr remarks about the reformer "Without putting his inner house in order, he tries to order and shape the world around him.[105] Following the Westerners they exalt action over contemplation. Rene Guenon has discussed this issue exhaustively in a chapter titled: "Knowledge and Action" in Crisis of the Modern World.[106]

The Eastern doctrines, and likewise the ancient doctrines of the West, declare unanimously that contemplation is superior to action just as the unchanging is superior to change. Action, amounting merely to a transitory and momentary modification of the being, cannot possibly contain its principle and sufficient cause within itself; if it be not dependent upon a principle outside its own contingent sphere, then it is something purely illusory; and this principle whence it derives all the reality of which it is capable, as well as its existence and its very possibility, is to be found in

contemplation alone or, in other words, in knowledge, since fundamentally these two terms are synonymous or at least they coincide, knowledge itself and the operation of attaining it not being in any way separable. Similarly change, in the widest sense of the word, is meaningless and contradictory, impossible that is to say, without a principle whence it derives and which, from the very fact that it is its principle, cannot be subject to it and is therefore necessarily unchanging; and it was for this reason, in Western antiquity, that Aristotle asserted the necessity of a "motionless mover" for all things. It is precisely this part of a "motionless mover" which knowledge plays in relation to action; it is clear that action belongs entirely to the realm of change and "becoming": knowledge alone provides the means of escape from this realm and from its inherent limitations, and when it attains to the unchanging, as in the case of principal or meta-physical knowledge, which is knowledge in its essence, it becomes itself possessed of immutability, since all true knowledge is essentially identification with its object. This is precisely what modern Westerners fail to understand; they admit nothing superior to rational or discursive knowledge, which is necessarily indirect and im perfect, being what one might describe as reflected knowledge; and even this lower type of knowledge they are coming more and more to value only in so far as it can be made to serve immediate practical ends: absorbed in action to the extent of repudiating everything that lies beyond it, they fail to perceive that this action itself degenerates, from absence of principle, into an agitation as unprofitable as it is trivial.[107]

Let us consider Dr. Nasr's perspicacious remark about the modernist reformers again:

"Without putting his inner house in order he tries to

order and shape the world around him".

Consider how can anyone who does not possess illumination and virtue hope to impart goodness to anyone else? "One who is good cannot help doing-good whatever he does, and one who is not good cannot hope to do good whatever he does."[108] This truth is profound; its obscurities has spelt the loss of spirituality for the whole Muslim world. "One who is good cannot help doing good whatever he does" — therein is indicated the station of man as Khalifatu Allah (Viceroy of God), the God-conscious dispenser of Heaven's perfume on earth: the pontifex whose very presence summons the souls of men to remember their King.

Subversion

The modem reformers exclusive concern with science and society shifts the focus away from the individual. These reformers ever deny belittle or ignore the mystical ethos which stresses individual reform and spiritual contemplation before action. It is not to be denied that the good of the Ummah is a priority, but it has to be insisted the Ummah can only acquire good from good individuals, and only through such individuals can it be reformed-Now the best individuals are those who have the most knowledge and virtue and the ones who have the most knowledge and virtue are those who Know and remember God. It is these truly qualified men who constitute the natural and authentic hierarchy of religious authority. In their hearts is deposited the integral intellectuality and spirituality which is the most precious heritage of the Ummeh. These men recognize the spiritual authority of the great luminaries of the past–those who have been unanimously acclaimed as the intellectual and spiritual leaders by the great scholars and saints in all ages. It is this

natural hierarchy of authority which has .preserved the integral teachings of Islam and in very generation transmitted and clarified the legacy.[109] These authorities have always emphasized the individual, over society, contemplation over action. realized knowledge over theory, symbols over facts, and fard'ayn over ford kifayyah.

Syed Nauqib al-Atlas a prolific author, educator and gifted thinker now residing in the UK, insists that the very loss of the notion of the hierarchical nature of knowledge has meant disintegration for the Ummah because it has allowed false leaders who do not have illumination and virtue to establish false hierarchies.llo.[110] Because the Ummah had lost its discernment, it accepted counterfeit authorities who deprived them of their birthright. Nauqib al-Atlas divides these false leaders into three types.[111] The first is the false Mama who reduced knowledge to fiqh; the second is the modernist reformers who denied the possibility of supra-individual knowledge. They submitted the legacy of Islam to a rationalist interpretation which differed drastically with the immemorial perspective upheld by the legitimate authority. The third type is the outright secularist leader. The first type of re-former militates against the authentic authorities of religion, while the second and third pro-mote worldly interests and make society, economy and polities their priorities. They use the institutions to further these priorities, and wage a campaign of propaganda against the traditional authority slandering them as quietist, unrealistic, stifling, world-denying, anachronistic, heterodox, irrational, fundamentalist and so on. At the same time these false leaders, in order to solve their social, economic and political problems, resort to Western social, physical, economic and political sciences. These sciences, as we have considerably

discussed, exert an immense secularizing influence in that they supplant religious norms with the dogmas of secularist humanism. The outcome of this subversion is that society starts to transform itself into an ant-heap; its activity is reduced to frantic, aimless change, without meaning or significance. Unfortunately the great majority of those who are promoting the "Islamization" of science are, in fact, only contributing to process of subversion and secularization which has overrun the Muslim world.

Some Reflections on the Thought of
Ziauddin Sardar

Ziauddin Sardar has recognized the inaptness of proposing that science and technology can be sufficiently Islamized by their simple incorporation in an Islamic polity. The idea of "science in an Islamic polity" supposes that because a man is a Muslim his attitude and approach to science will be different, that is, his science will be Islamic. Sardar remarks that this "is the ultimate in intellectual blindness" (p. 38), because such a view ignores the fact that science is an international enterprise inseparably tied up with politics and profane ideology, "One either works within or outside [the scientific enterprise]" (p. 38) Research priorities and emphasis are set not by individual scientists but by national governments, external influences – like the US military – industrial complex – aid agencies and the international culture of science. There is no way for an individual scientists working in his laboratory to safely conclude that his particular piece of research will not serve a socially disruptive purpose." (p. 38) Sardar points but that half the community of scientists world-wide are engaged in work "related to social control, either domestically repressive regimes against their

own population or externally as war." (p. 39) He further explains that this involvement is not simply direct, as in the case of weapons production, but also indirect. The indirect involvement is the industry support to the direct involvement, that is "the war-machine." It is equally blameworthy as is confirmed by the hadith: "He who abets a bad deed even by half a word is partner in it". Within this system one cannot take an Islamic approach or argue that the reductive methodology of science will lead Muslim, by virtue of their religion and beliefs to make environmentally sound socially beneficial contribution to Islamic societies Nor indeed, one can take refuge in academic isolation and blame 'others' who have soiled the fair name of science by applying its results to evil deeds. Such breath-taking disregard for the ways in which the total, unified system of Western Science works is a major factor why genuine problem solving methods and socially relevant research has never taken root in Muslim countries." (p. 39)

Sardar criticism is fully justified. This ingenuous and reprehensible attitude is usual among Muslim scientists. An instance of it is presented by Ahsan Jan Qaisar, a scholar, whom Sardar criticizes. Qaisar has summarized the prevailing attitude as follows:

The Muslim scientists most realize that, as far as processes and methodology are concerned, science and religion are two separate worlds (p. 37).

Sardar denies that we can conceive of science in an Islamic polity, and he declares that an Islamic science must be restructured "whose processes and methodologies incorporate the spirit of Islamic values, a science that is geared to the needs and requirements of Islamic values …a science that is done not for its own sake but for the pleasure

of Allah…" (p. 40). Although we will full-heartedly agree with this definition we have to observe that Sardar's understanding of the Islamic methodology and the real spirit of "disinteredness" is greatly limited. He declares that every civilization is heir to two types of knowledge — "the self-evident truths requiring no proof' (p. 40) which he calls "axiom" and another type which he vaguely defines as "a dynamic and volatile body of scientific knowledge". (p. 40) Sardar argues that the Islamic sciences flourished because of its broad base of axioms. He remarks that "Occidental civilization has few axioms" (p. 40), and he indicates that these are "negative" in effect. Then he lists some of these axioms: "... that Reason is Supreme, nature is there to be dominated, the purpose of science is to solve all problems and that the only science that can do this are that of the Enlightenment" (p. 41) Sardar further insists, "The revival of Islamic science in our time means contemporary science will get a much-needed ethical base," and what he implies is that because Islamic sciences are possessed of axioms these would be infused into the modern sciences giving it an "ethical base". He indicates that during a seminar entitled "Science and Values in Islam and the West" (p. 42) held in Stockholm in 1981 a code of what were called "concepts" from which were "to shape the goals of a Muslim society" (p. 43) and from which "basic values" could be generated. The ten concepts identified were as follows: tawheed (unity), khirafah (trustee-ship), ibadat (worship), 'ilm (knowledge), halal (praiseworthy) and harem (blameworthy), adl (social justice) and zulm (tyranny), istislah (public interest) and dhiya (waste). (p. 42)

There can be no dispute about the concepts, if science were to be re-constructed with the intention to fulfil the

complete requirements of even just one of the first four concepts; namely, tawheed, khilafah, ibadat and 'ilm, it would be an integral science of benefit to man m both body and spirit. However, in proposing to determine a new science only in accordance with the requirements of these concepts, Sardar and the other proponents have deceived themselves, for they have not discussed certain basic premises of the scientism we have been discussing throughout this paper. These premises to which they have acquiesced are essentially opposed to the ideas by which they propose to mould a new science. We have examined enough of Sardar's writing to appreciate that he assumes there is no faculty superior to reason. This condemns him, and the others who share his handicap, to what Rene Guenon has aptly called, a "gross practical naturalism which shuts up our contemporaries within the sole domain of contingency".[112] It precludes any understanding of metaphysics and the principles of which this world is a manifestation. Sardar, and most of members of Muslim Association for the Advancement of Science in Aligarh, and the Inter-national Institute of Islamic Thought in Washington are basically content with the study of contingency and with the inductive methodology of science to the exclusion of methodologies which were formerly employed by Muslim scientists. Rene Quenon has insisted, "…it is quite out of the question to build up again a traditional civilization in all its fullness without fist having the supreme and fundamental knowledge that must preside over the work. To seek go about it otherwise would mean introducing still more confusion just whore one hoped to abolish it…"[113]

Rene Guenon (Abdul Wahid Yahya. d. 1950) was an intellectual (Sant of such stature as the Western world clearly

has not produced in over four hundred years. On the one hand he denounced and exposed the errors of Western thought with such a rigorous logic as no-body else has been able to do and he left us in his writings an intellectual armory powerful enough to raze the edifice of profane Western thought to the ground. On the other hand, he expounded with brilliant clarity the metaphysics inherent in revelation so that we might reclaim our heritage further he was a pious new Muslim. That he be ignored altogether by would-be lslamizers, shows that something is seriously amiss.

The work of Rene Guenon has been continued for several decades by Frithjof Schuon (Isa Nuruddin). Titus Burckhardt (Ibrahim Izzuddin), Seyyed Hossein Nasr and Osman Bakr. These scholars faithfully present Islamic science in all its intellectuality and make no unwarranted and servile compromises with modern thought. Their work and the work of the original Muslim scientists themselves should provide the point of departure in any endeavour by Muslim scientists themselves should provide the point of departure in any endeavour by Muslim scientists to revive or adapt Islamic science for the modern world

As we have already had occasion to mention, a truly Islamic Science acknowledges the hierarchic nature of the universe and its major concern is speculative — that is. it "seeks the knowledge of the essence of things in relation to their divine origin".[114] This concern is something Sardar Kirmani, Ismail al-Faruqi and others fail to comprehend, and it disqualifies them as potential revivers of Islamic science.

Let us consider just one or two of the ten concepts identified by the congress in Stockholm to see what it implies or requires of a science that is conceived in subordination to it. Sardar writes the following about unity (tawheed):

It becomes an all-embracing value when this unity is asserted in the unity of mankind. unity of man and nature and the unity of knowledge and values. (p. 42)

It is one thing to speak about asserting the unity of knowledge and of man and nature. but it is quite another thing to actually achieve it.

Osman Bakr insists that the entire °epistemological paradigm of Islamic Science" is based upon the idea of unity (tawheed).[115] Let us attempt to clarify how this is so.

God is the indeterminate principle, the unqualified Essence and the Pure Intellect. It is His nature to reveal and create. This is attested by the Qur'anic verse: "We did not create the heaven and earth and all that is between them except for truth (al-haqq). (Qur'an 46:3) A hadith qudsi confirms the same: "I was a hidden treasure and I desired to be known so I originated the Creation."[116] Osman Bakr comments about this hadith: "This implies that God's Creation is also His revelation, otherwise it would not be possible for Him to be known through His creation."[117] The cosmic revelation, as we mentioned earlier, has been called the First Book of God (Awwal l-kitab Allah).[118] It also has been called the Qur'an of creation (al-Qur'an al-Takwini).

God has determined the cosmos in stages. In other words, Reality is comprised of a hierarchy of states which reflect the Supreme self in an increasingly imperfect manner according to their remoteness from the Source. These levels of existence are known through revelation and in classical cosmology they are five: Nasut, Malakut, Jabarut, Lahut, and Hahut (The material world, the angelic world, the world of power, the Divine Being, Beyond Being)[119] The material world is comprised of both corporeal and psychic modes, also referred to as the subtle and gross states. The angelic

world controls the lower natural world. The world of power constitutes the distinct attributes of the Divinity. The next Presence (Lahut) designates the Divine Person as the Creative Principle which is still indistinct while the last Presence (Hahut) designates Beyond Being, pure and unqualified Essence — "the hidden treasure").[120]

Man is God's creation and a secret of God for he is endowed with the intellectual faculty (al-'aql) which also hierarchic in nature:

In other words, man is capable of having multiple levels of consciousness. He is "in a position to know that universe completely and also to know its uncreated Prins ple".[121]

Islamic mfulhodology of knowledge (al-'ilm) deals precisely with the essential relationship between the hierarchy of man's faculty of knowing and the hierarchy of the universe, and with the Principle governing that relationship. "In traditional Western metaphysics the Principle was sometimes referred to as the metacosm; the universe - the macrocosm; and man - the microcosm. It was comprehended that whatever is in the macrocosm is also in the microcosm. while the me tacusm, which was placeless, contained them both. This doctrine is also an important Islamic doctrine.[122] The authority for which is the following Qur'anic verse:

In time we shall make them fully understand Our messages [through what they perceive] in the utmost of the universe] and within themselves, so that it will become clear unto them that this [revelation[is indeed the truth. (Qur'an 41:53, translation and interpolation by M. Asad)

The Divine Intellect is the source of the human intellect[123] which has been called the partial revelation (al-wahy al-juzi)[124] the Universe which, as we have just described, is a cosmic revelation (al-Qur'an al-Takwini); and

the Qur'an (al-wahy al-kulli).[125] "That the individual human intellect, the macrocosmic Universe and the Holy Qur'an have the same metaphysical basis or source has an immediate significance for the methodology of science in Islam."[126] "It is again the principle of Tawheed which integrates these three forms of divine revelation into a comprehensive and coherent unity."[127]There is something in the human soul which corresponds to the phenomena (ayat) of the universe as well as the verses (ayat) of the Qur'an. This is confirmed by the following hadith which we had occasion to mention earlier: "A word of wisdom is the lost property of the believer. Let him recover it wherever he finds it."[128] And in another hadith, also quoted earlier, the same is con-firmed:

The son of Adam has a piece of his heart in every ravine. Whoever chases after all the pieces Allah dosn't care in which ravine He destroys him. But whoever trusts in Allah, He will suffice him for all the pieces.[129]

By plumbing his own soul man can know the reality of all things and know as well the Principle of all things. This is attested by a tradition which has been criticized from the point of view of transmission because it is a mauqu f hadith stopping in its chain of transmission (isnad) with Hazrat Ali. This at any rate makes it a saying of a companion (othar). The saying is as follows: "Who knows Isis oven self knows his Lord".[130] We have discussed this tenet above while discussing principles under a section titled, "Degenerate Residues", so it should not be necessary to elaborate here any further. The corollary thesis that he who denies and forgets his Lord, denies and forgets himself is found in the Qur'an:

And be not like those who are oblivious of God. and whom lie therefore causes to be oblivious of their own selves! it is they, they who are truly depraved! (Qur'an 56:19.

Trans. M. Asad)

The foregoing epistemological considerations can only be recognized when there is a sufficiently clear grasp of unity (tawheed). A proper conception of unity must comprehend the hierarchical nature of reality. This precisely is the last thing profane rationalists want to admit, for they refuse to acknowledge that there may exist a reality beyond the scope of reason.

Muslim scientists had a clear understanding of the ontological unity of phenomena and scripture. They knew that the meaning of phenomena and scripture was hidden in their own souls, so they were able to resort to methodologies of knowledge which either are not conceived of by modern thinkers or whose legitimacy they will not admit. Muslim scientists, as is well known, also resorted to the methodology of observation, experimentation and ratiocination, but there was an enormous difference between the rationalism of Muslim scientists and their modern counterparts, for the Muslims never pretended that reason was the supreme arbiter of knowledge. They were certain about the existence of the Supreme Principle and they subordinated reason to revelation. In other words, as much as phenomena, the Qur'an provided undeniable data which reason might then interpret? The rational methodology of exegis was known as tafsir, but it is to be emphasized that its exercise requested faith in God and His revelation.[131] "We will make clear our signs to people with certain faith." (Qur'an 2:118)

"The methodology of tafsir, as it has been developed traditionally, including especially the method of linguistic analysis, must constitute an integral component of the over-all methodology of Islamic science that is to be revived in the

modem world."[132] Modem scientists pride themselves as being the first fully rational thinkers. However, the truth is their methodology is defective and all the logic in the world cannot remedy their error for they have built their edifice on false premises. Those who desire to restitute Islamic science must renounce the adulation and servile imitation of modern scientists and assert the authentic rationalist methodology of Islam. If they did this with self-confidence and competence, many Western scientists would surely rally to their support, for some of the most able Western scientists have become disillusioned with the conventional inductive methodology and are seeking to employ a plurality of methodologies including scriptual exegis (tafsir).[133]

A second methodology employed by Muslim scientists was the hermeneutic exegis (ta'wil) of the inner meaning of the Qur'an.[134] "If the operational aspect of the 'aql in the method of tafsir is the rational faculty which exercises an analytic function by means of logic, that aspect which is operative in the method of renail is the intuitive faculty whose function is synthesis and unification, and whose chief instrument is symbolism."[135] B It was the vision of the ontological unity of the hierarchy of being which enabled Muslim scientists to realize that this world.and all'that is in it is nothing but a symbol of realities on higher planes of being The qualitative aspects of the symbolic form are sufficient to indicate the essence of that form to one who has sufficient intaitive capabilities (wijdan).[136]

Further, Muslim scientists were also open to inspiration,

How did Ibn Sina arrive at his impetus theory or Nfsir al-Din al-Tusi at his new model for planetary motion or Ibn

al-Haytham at the concept of momentum, one of the most fundamental concept of modern physics, or Shihab al-Din al-Suhrawardi at his theory of corporeal objects as being degrees of light? Professor Nast affirms the view that such creativity, whether in the case of Muslim scientists or their modern counter-parts, cannot be reduced to any well-defined, step-by-step method but always an intuition, a jump of a creative nature.

Although the creativity of Muslim scientists cannot be reduced to "a step-by-step method", the capacity for intuitive reflection and inspiration can be cultivated in the right "kind of total environment, physical, social and cultural, intellectual and spiritual that is most conducive to intellectual actualization."[137] All genuine sciences are attached to a Divine revelation because the intellect which perceives "the universal and immutable principles" only becomes activated by "the aid of supernatural elements that an authentic and complete spiritual tradition can supply."[138] Here is not the place to discuss how intellect might be actualized. Suffice it to say that as far as conceptional factors are concerned the adequate comprehension of the doctrine of the unity of the hierarchy of being is indispensable. As for spiritual factors, the purification of the soul and the practices of prayer and meditation are necessary.[139]This is evidenced by the fact that a great many Muslim scientists had spiritual affiliations:

It is not a mere historical coincidence that to many of the Muslim scientists were either practising Sufis or were intellectually attached to the illuminationist gnostic schools, – as Professor Naves works so clearly demonstrated.[140]

The authentic Islamic methodologies are consequent to an effective and profound realization of unity (tawheed). For lack of this realization Sardar, Ismail Famqi and other would-

be Islarnizers are not able to conceive of anything but a superficial and trivial rcvtruc-Luring of sciences:

Whatever they will present will remain essentially Western because it "remains embedded in the epistemological paradigm of modern science."[141]

Similarly, if we take the concept of Trustee (khiiafah) which Sardar and others have advanced as a criteria under which they propose to reform science, we will find that they cannot fulfil its requirements either. Sardar asserts.

…man is not independent of God but is responsible and accountable to God for his scientific and technological activities. The trusteeship implies that man has no exclusive right to anything and that he is responsible for maintaining and preserving the integrity of the abode of his terrestrial journey. Thus the heroic concept of science, the lone scientists out to conquer and dominate nature at all costs, has no place in this framework. (p. 42)

This conception of khilafah is incomplete. Although Sardar rightly insists that we have the responsibility as khilafah not to misuse the environment, he fails to comprehend that this is not enough for man is khilefatu Allah only by virtue of intellect through which he is capable of knowing God and the meaning of all things as they really are. The doctrine of the khalifah is quite transparent in the Qur'an:

When your Lord said to the angels: 'I am placing on the earth one that shall be My deputy, (Khalifah) they replied: Will you put there one that will do evil and shed blood when we have for so long sung Your praises and sanctified Your name? He said: 'I know what you do not know.'

He taught Adam the names of all things and then set them before the angels, saying: 'Tell Me the names of these, if

what you say be true:'

Glory to you, they replied, we have no knowledge except that which You have given as. You alone are Wise, Knowing. Then said He to Adam: 'Tell them their names.' And when Adam had named them, He said: "Did I not tell you that I know the secrets of heaven and earth, and all that you reveal and all that you hide?' And when We said to the angels: 'Prostrate yourselves before Adam, they all prostrated themselves except Satan, who in his pride refused and became an unbeliever (2:30 – 34 trans. by N. J. Dawood).

The angels conceived of the qualities of unregenerate man and they were puzzled why God would honour one who would spread corruption, but the angels were not able to conceive of the qualities of regenerate man, the khalifah, represented super-eminently by Adam (SA AS). Adam (SAAS) was God's secret, and God demonstrated His unique capacity to the angels for He gave him the names of all things, that is He indicated to him the essences of which the angels were incapable of apprehending. (In Islamic metaphysics and cosmology the names (al-asma) of things is used routinely to designate the essences of phenomena, that is, the noumena).

The Qur'an describes elsewhere how God spoke to the angels about the creation of Adam (SAAS), "I am creating man from dry clay, from black moulded loam. When I have fashioned him and breathed of My spirit into him, kneel down and prostrate yourselves be-fore him." (15:29 trans by N. J. Dawood) The khalifah is a mystery of God, for the khalifah has a theomorphic nature by virtue of which even the angels were commanded to prostrate before him. The spirit, the intellect, and light are various terms by which the transcendent element of man is indicated,[142] and by reason of

it man, that is to say re-generate man, assumes a central position in the physical universe, for he is the most articulated sign of the Supreme Principle and the means whereby the rest of creation is afforded knowledge of the Godhead.

And in this context it is appropriate to mention the 'extremely timely' table which Professor Nasr recounts from an Islamic philosophical treatise. It concerns a dispute between man and the animals. The various reasons put forward by man in defence of his exploitation of the animal kingdom, based as they are on purely human advantages, are all rejected by the animals. 'Only when animals see that among men are saints, who in returning to God also fulfil the deepest purpose of the creation of the animal kingdom, do they agree to obey man and to serve him.[143]

It is by assuming his theomorphic nature that man fulfils "the deepest purpose of the animal kingdom (and the rest of creation as well) This is why the creation blesses the saints and sages as is attested by the hadith "…Verily Allah, His angels and the dwellers of the heavens and the earth and even an ant in its hole and even the fishes bless the learned men of the righteous." (Tirmidhi in Mishkat)

Lord Northbourne (Sidi Nuh) has expounded the role of the Khalifah in a masterly fashion in terms of the traditional concept of evil:

The world is a manifestation of the pure, and infinite goodness of the Principle, but, not being the Principle, the world is not pure goodness, but is tainted with that negation of goodness we call 'evil'. The world came from the Principle and must return to it; that return implies a reintegration in which evil can have no place. Man shares the imperfection of the world, but, as the ultimate development in the manifestation of the Principle, he becomes as it were the

instrument through which the reintegration is brought about: His whole duty therefore, and his whole advantage, consist first in learning what goodness really is, and then in pursuing it with his whole heart "[144]

It is in this knowledge that man really fulfils himself and only with this knowledge can be properly discharge his duty as khalifah. A science which promotes this type of knowledge is realistic in that it can inform us of our real place and purpose, and, as a facet of the revelation, it can act as an intellectual support for the assumption of our true nature as Heaven's viceroys dispensing the perfume of Unity in the meadows of multiplicity. On the other hand, a science which concerns itself solely with the relative good or an illusory good is appallingly unrealistic.

Ziauddin Sardar's conceives Cod's khalifah on earth rather as a noble guardian using the earth as a goodly garden neither abusing the garden or his fellow gardeners. This concept has childlike charm but the problem with childishness is that it is unrealistic. The world is a garden, but at the same time it is temptation, distraction, and illusion; al-dunya of the Qur'an and hadith. The inadequacy of Sardar's concept of khalifah is brought into stark relief by the following hadith:

The world is sweet and green and verily Allah is going to instal you as Khalifah in order to see from you act. So safeguard yourselves against the world and avoid the trial caused by women. (Riyad as-Salihin: 462, from Muslim)

If we permit ourselves to be seduced by the world we will lose our intelligences and what alone makes us truly worthy of God's vicegerency (khilqfat).

We have considered just two of the concepts by which Sardar and others are proposing to remodel Islamic science,

and we think we have shown that, while the concepts are key Islamic concepts, Sardar's understanding of them is not fully Islamic.

If we were to exam the rest of the other eight concepts that the Islamizers have identified, we would similarly show that the "Islamizers" do not comprehend them in an adequate manner because their epistemological outlook is fundamentally Western. Not only are they not qualified to restructure a genuine Islamic science, but they will only further obscure the reality of such sciences by labelling their illegitimate conceptions as Islamic.

Although Ziauddin Sardar talks about epistemology, he fails to comprehend principles in an integral sense, so in their place he installs pseudo-principles. He writes:

Logical positivism and materialism (of which Marxism is a part) and their twentieth century counterpart. logical empiricism, threw values overboard altogether. In their epistemological framework values are not considered proper knowledge. Utilitarianism declared that the goal, the ideal, of all moral endeavour is the greatest happiness of the greatest number of people. (p. 34)

Sardar correctly observes that utilitarianism has resulted in moral relativism, but he confuses contingent values with epistemology. What empiricism "threw overboard" was transcendent truth not merely values.

Sardar omits to make the necessary criticism of modern epistemology: namely that it rejects the hierarchical nature of the objective and subjective pole of knowledge; that is, that which is known and that what which knows – the universe and man.[145] This is the error at the root of "the intellectual regress" from which our age suffers. The moral plight is only a contingent consequence of a graver malady — the denial of

the transcendent hierarchy of being. The secular mind cannot be prevailed upon to adopt any value unless it is a matter of self interest or fashion. It is futile to advocate, as does Sardar- that science and society ran be cured by inculcating moral value alone. The folly of such thinking is illustrated by the moral relativism which is rampant in the Christian world today; when the knowledge of theological doctrine waned completely in the modern era, Christianity was reduced to effete moralism[146] which for insufficient intellectuality could not contain moral relativism and anarchy within the Church itself.

While discussing the intellectual debacle and the development of moralism in the West, Rene Guenon observes:

If, nevertheless, doctrine still happens to be talked about sometimes the result is only too often to debase it through discussing it with its opponents on their own "profane" ground, which inevitably leads to the making of the most unjustifiable concessions; it is for this reason in particular that people imagine themselves obliged to take account, to a greater or lesser extent, of the supposed discoveries resulting from modem `criticism', whereas nothing would be simpler, by placing oneself at a different point of view, than to demonstrate their shallowness' under those conditions how much can really survive of the genuine traditional spirit?[147]

In a completely analogous way Sardar and the Islamizers sometimes talk about epistemology with the result that they debase it by discussing it on the same "profane" ground which inevitably leads to making unjustifiable concessions; they feel obliged to take account of the supposed advances of the scientific methodology, whereas nothing would be simpler, by placing themselves at a different point of view,

than to demonstrate the shallowness of the scientific perspective; under these conditions how much can really be salvaged of genuine Islamic science'?

Technology: The Legitimate and the Profane

So far in this essay we have been considering what may be referred to as the intrinsic malaise of the scientistic perspective, attempting to expose how it suppresses and subverts religious intelligence or what we preferred to call elsewhere the symbolist spirit following Dr. Nasr. Now we have to focus on what we may call the extrinsic malaise of the ill-omened enterprise which the would-be Islamizer Mr. Kirmani has so proudly hailed as "S & T" meaning science and technology.[148]

We had occasion to remark that, about the time of the Renaissance, a hitherto unknown and anomalous situation arose with the bold assertion of an individualistic spirit which denied any destiny beyond this earthly life and sought to fulfil itself here and now. Indeed, such a mentality had been encountered before, but as an exception and not as a rule. To meet the demands of this new faith, there soon arose an eager priesthood in whose hands were not the keys to the Kingdom of Heavens but to Kingdom of Man We are referring, of course, to the scientist Thanks to the scientists prying into the secrets o1 the natural world man acquired the power to exploit the environment in a truly titanic fashion. By meddling with and harnessing forces and elements normally hidden to human experience, man has forced fractures in the sphere of normal human existence. The powers over the environment which man acquired through rebelling against his natural vocation were monstrous, a fit compensation for the monstrousness of his insubordination to his Creator.

Suddenly man had "god-like" control over his earthly destiny: he could change the Fast and the West. But the artificial world which rose with a wave of his technological wand so much hid him from human normality that he was shut out from his past and left alone to cast the parameters and avenues of his subhuman world. The question of what is normal for man or what is his true nature (fitrah) is a vital question, but it is a metaphysical question, and it demands a metaphysical answer.[149] It is precisely for lack of metaphysical knowledge that man has entered the abyss in which he finds himself, and all his struggle to find meaning in the world are as futile as reaching for an overhanging bank of sand In this connection Peter Moore writes:

Modern psychological and social theories of what is 'natural' in man and 'liberating' for him, because they lack any metaphysical basis. inevitably turn out to be nothing more than projections of that perennial complex of desires and illusions from which man in his heart longs to escape These desires and illusions may have become man's 'second nature' but they do not constitute his essential nature [150]

Four of the most eloquent and able critics of modernity, Frithjof Schuon, Dr. Naar, Gai Eaton and Huston Smith have recalled the myth of Prometheus was one of the Titaus of Greek mythology and he o as an ingenious craftsman. At one lime in the early history of mankind it was said that Zeus removed all fire from earth. Prometheus defied Heaven and by means of cunning stole tire from Olympus and brought it back to mankind. However, in payment for the fire. Zeus sent Pandora to mankind with a chest which contained every kind of affliction.[151] Let us make some remarks which may show why this parable is so apt

The scientific enterprise has wrought a two-fold

devastation for mankind. One aspect of the ruin concerns the environment, the other aspect concerns the quality of human life. In the first case. techro-science has ravaged, defaced, and desecrated every niche of the ecosphere for, not to mention the unhuman desolation of urban excrescences, the very mountain forests, the high seas, and even the stratosphere bear some blight, some stain, some contamination of technology. The ecological damage is copiously documented and fully recognized, at least in the developed world where a great fraction of the scientific community, government bureaus, and the general public have been campaigning against the indiscriminate exploitation of the environment In the "undeveloped" world for different reasons, particularly the inordinate greed for development, there has been no concern, as yet, about the effect of technology on ecology.

Be that as it may, those who have shown concern for the ravage of the natural world have invariably suffered from one enormous shortcoming they have failed to see that the problem is a theological and metaphysical one, and not merely an ecological problem which resulted from a misuse of technology. Instead of seeing what is the root cause of the malaise. They have contented themselves to tender mere symptomatic relief. "It is not enough simply to exercise care and restraint in the use of natural resources... It is not good appealing in a vague and sentimental way to man's obligations and responsibilities to the natural environment. For within a purely secular or humanistic system there is absolutely no reason why man should care anything about the natural environment beyond what is dictated by self-interest and perhaps also by aesthetic considerations."[152] The real malady is metaphysical and it demands a metaphysical redress

Secular man grovels under the delusion that he is free to

treat the environment how-ever he fancies for he denies his subordination to God and his dependence on Him. Allhe evils of technological world are a consequence of this delusion. The real solution involves the rediscovery of man's true nature, place and purpose in the cosmos, for were man to recognize this, he would see that his genuine terrestrial needs are very different from what he imagines them to be.

The traditional sciences, which are derived from the Islamic revelation and dependent on it, are able to provide in a pre-eminent manner the adequate understanding of man's nature, place and purpose in the cosmos so that he can administer not only to his spiritual needs, but also to all his legitimate temporal needs. "Their 'utility' [traditional sciences] is, therefore, twofold... Moreover, their message revolves around the central theme of the utter dependence of the lower states of being upon those above and therefore the necessity to possess the higher knowledge and to live according to the norms of the world of the Spirit in order to be able to cultivate a legitimate knowledge of the world below and to live in harmony and equilibrium with it."[153]Muslims desperately need to comprehend this to salvage themselves from the dilemma which besets them for having blindly adopted Western technology.

Peter Moore has made the very significant that technology does not necessarily mean scientific technology:

Not only does technology have a history quite as ancient as that of science, but until comparatively recent times technology followed a course of development more or less independent of that of science. The popular view, of technology as a secondary outgrowth of science, dependent for its development on new scientific theory and discovery, is in tact quite mistaken. Right up into the middle of the

nineteenth century, the actual links between science and technology were very tenuous: if anything, the influence of technology on science was more significant than that of science on technology. Lynne White Jr.[154] has aptly described the history of technology, as 'a record of inspired empiricism' and this empiricism embodied laws and principles that were not necessarily understood 'scientifically' by those who invented and developed it.[155]

It is necessary to distinguish what might be called traditional technology from today's popular scientific technology. What we have just called traditional technology has always been available to man.

Dr. Nasr remarks in his article:

Traditional technologies had to do with craftsmanship and art in its original sense (rechne' in fact like are means to make), but precisely because in the traditional context, as shown so majestically by A. K. Coomaraswamy, are sine scientie nihil, ['There is no art without science, they were also concerned with the traditional sciences. For example, traditional architecture is at once a synthesis of art building techniques and science. There are also other forms of traditional technology of remarkable character such as the chemical technology of ancient Egypt, the dyes made by the Chinese or the metallurgy of the Persians and the Arabs. There are also remarkable monuments to the technology of irrigation in the form of dams, canals, underground waterways, etc. found in lands as different ecologically and climatically as Sri Lanka and Persia. In traditional fonts of technology the knowledge drawn from the traditional sciences was combined with practical methods to create results which affected the body and soul of the maker as well

as the user and beholder of object or work in question. (p. 241)

It is not our intent here to propose a wholesale return to old-fashioned forms of technology and artisanry but rather, to pro with examples of legitimate technologies that it is possible to solve real human problems without disrupting the natural environment or the religious way of life. Modern man has fabricated all around himself an artificial world which, on account of its sophistication beguiles hint with endless false needs which stifle his true spiritual nature and despoil the natural environment. It is incumbent on modern man to revive adapt or initiate forms of technology which neither threaten his physical survival, nor jeopardize the welfare of his immortal soul.

Rene Guenon on remarks:

Material development and pure intellectuality go in opposite direction: he who sink himself the one becomes necessarily removed front the other.[156]

We have deliberated so much on the integral meaning of intelligence that it should not be necessary to clarity further. Nonetheless, let us be reminded by Rene Guenon who remarks after the passage just above:

It should be carefully noted that we say here intellectuality and not rationality, for the domain of reason only intermediate as it gyre, between that of the senses and that of the higher intellect: though reason receives a reflection of intellect even while deny it and believing itself to be the human being's highest faculty it is always from the evidence of the senses that the notions which it works on are drawn. In other word, what is general the proper object of reason and consequently of science which is reason's work though it is not of the sensible order of things, proceeds none the less

from what is individual. which is perceived by the senses: it may be said to be beyond the sensible, but not above it; it is only the universal, the object of pure intellect that is transcendent, and in the light of the universal even the general itself becomes one with the individual.[157]

Similarly Gai Faton has observed that inventiveness and intelligence are mutually antagonistic. Man is compelled to choose between the two antagonists, he is "never allowed to enjoy both together. To possess one he must, in the long run sacrifice another; and, for that matter, to possess some worthless trifle he may be called upon to give such valuables as he has inherited; buying fantasies at the cost of reality and paying in sound coinage for trash. What the world can offer us is limited by its very nature, and we must decide what we want to have from it".[158] This antagonism is confirmed by the holy utterance of the Prophet (SAAS):

Whosoever loves his world ruins his hereafter, and whosoever loves his hereafter ruins his world so prefer what will last forever to that which will perish.[159]

Al-Ghazzali has delimited the fundamental essentials of life as only three food, clothing and accommodation. Our real needs from this world are in fact quite simple. Beyond these elemental requirements, the world has nothing else it can offer us. The Prophet (SAAS) indicated this when he said:

Whosoever of you gets up at dawn tranquil in his mind and sound in his body and having food for his day this world is provided to him, as it were, with all its treasure.[160]

Those occupations and the know-how related to basic needs are truly legitimate. They arc followed in merit by those secondary occupations and that secondary know-how which are essential for the practice of the principal occupations. The point to be grasped is that these pursuits by rights must be

subordinate to the pursuits of religion for what is the body but a vehicle for the soul and what is society but a means of guaranteeing a quality of life in accordance with the true nature of man.[161]

In a critical appraisal of technology it is of capital importance hr recognize that there were certain techniques which "deliberately were not employed or developed beyond a certain point — the point at which they would begin to impede or prevent what was for more important.[162] For the medieval world what was of supreme importance was the pursuit of the spiritual and what either directly conflicted with religious life or was ill-adapted for it (for example, because of a lack of beauty or harmony) was suppressed. There are many examples of this:

The historian of science, Lynn White Jr. suggests that the Muslims deliberately avoided the printing press because they felt instinctively that cheap books would eventually destroy cultural leadership, and in his opinion the later history of the hest has proved their instincts were correct. The ancient Chinese, whose immense scientific knowledge and technical expertise are now fully recognized, likewise refrained forms certain technological applications well within their competence because they saw in them a threat to the quality of their way of life. The same is true of the Ancient Greeks: for, as Simone Weil observed, if Greek science produced little in way of technical applications, this was not because they were incapable of doing so, but because the wise men of the times feared the effects of technical inventions which could be made use of by tyrant and conquerors. So, instead of delivering to the public the greatest possible number of technical discoveries and selling them to the highest bidder, they kept rigorously secret all the ones they happened to

make for their own amusement: and, apparently, themselves remained poor The Need for Roots, p. 234).[163]

Peter Moore also quotes Dr. Nasr who wrote of certain Islamic treatises which "described complicated machines which are most like what modern technology has developed during the past two centuries… it was precisely this kind of technology which the Muslims never took seriously as a possible way of changing their economic life and means of production" and Phillip Sherrard continues that it seems the only real practical outcome of such treatises was, as Nasr says, "the making of complicated clocks and gadgets a ii if the .Muslims wanted to show that the only safe kind of complicated machine is a toy…[164]

Pervez Manzoor in a recent article in Inquiry Magazine remarks that during Napoleon's occupation of Egypt in 1798-99, the tamed historian. Abdur Rahman AI-Jabarti attended scientific exhibition mounted by the French who wished to impress the Egyptians with a sample of fabulous Western culture. Parvez Manzoor writes:

The awesome display of technical wizardy, however, did not impress him [Jabarti]

He recorded that 'the French evidently mistook Muslims for children who could be impressed by such monkey-tric6 s, but that this rather reflected childishness on the part of the French themselves. [165]

What Al-Jabarti said would, no doubt, be supported and applauded by the entire medieval world for as Phillip Sherrard has observed, on account of the resistance offered by "Christian Consciousness", even after the breakdown of Christian authority in the West, technical development was slow: it was not until the 18th and 19th centuries that people began to think on any effective scale that the utilization of

machines and gadgets in order to produce concrete results of a quantitative nature was not beneath the dignity of man".[166]

The Pretence to Disinterestedness

In contradistinction to the prudence and dignity of the medieval mentality, the modern mentality is reckless, trivial, and irresponsible. The modern scientist has pursued knowledge and exploited it indiscriminately. He is eloquently denounced by Erich Heller who wrote:

Wherever he sees an avenue, he will explore it – regardless of the triviality or the disaster to which it leads: wherever he sees the chance of a new departure, he still take it – regardless of the desolation left behind. He is so unsure of what ought to be known that he has come to embrace a preposterous superstition: everything that can be known is also worth knowing – including the manifestly worthless.... Galley-slaves of the free mind's aimless voyaging we mistake our unrestrainable curiosity, the alarming symptom of spiritual tedium, for scientific passion. Most of that which flourishes in these days as 'science', said Kierkegaard is not science but indiscretion. . . (The Artist's Journey to the Interior, pp. 15-16).[167]

The assertion that scientists pursue knowledge for its own sake and that this is natural to man is sheer pretence. If scientists were truly interested in knowledge, why did they restrict their investigations exclusively to the physical and temporal realm, and why did they exclude all methodologies of knowledge except the inductive? The truth is that the scientific method and its preoccupation with the study of the world of matter was born of the individualist spirit which ignored God and refused real knowledge. Moreover scientific pre-occupation with even just the material world was not

disinterested but clearly vested, for its object was the control and exploitation of nature as Francis Bacon and Descartes clearly pronounced. Indeed, rather than say of scientists, that they pursue knowledge for its own sake, it has to be said that they refuse knowledge for their own sake, that is, for the sake of the most inferior and petty aspect of their selves – the self-asserting ego which desires to satisfy itself in the temporal realm, that is, it "desires to live by bread alone".[168]

The inferior ego has at its disposal a faculty that can secure for it its desires in this world and that is the faculty of reason. Because reason guarantees it power, the inferior ego sets it up "as the Supreme arbiter of human knowledge".[169] The profane rationalist denies that there is any faculty which transcends it, or any knowledge which it is incapable of comprehending. This is both monstrous arrogance and a pernicious error, for the unaided reason is extremely limited. "When reason turns exclusively to the phenomenal world for its information, not only do its conceptions refer solely to the finite and temporal world but also they refer merely to those aspects of it that are susceptible to measurement…[170]

It is incapable of telling of us anything about who we are because we in our essence are not observable; rather, we are that which does the observing. Whatever we can observe is not the indistinct "self" which is "the one ultimate certitude lying at the heart of the being of every one of us".[171] If reason cannot tell us what we are ourselves it certainly cannot tell us what man is or what is anything else in this universe. The scientific perspective excludes all but the external and material reality of man. It denies his essential nature and ignores what is incomparably the greater part of his reality. The picture of man that science presents us is woefully shorn and disfigured. Well has Phillip Sherrard said:

... an inhumanity is built into the very premises on which modern science is based.[172]

Far from being innocent, the scientific endeavour is heinous negligence and nefarious traffic. That it has acquired an image as an innocent and dispassionate pursuit is only a sign of the intellectual capitulation of our times. Gai Eaton has observed in King of the Castle that the scientist's claim to innocence is incredible in light of the fact that scientists had to struggle for several centuries against the unanimous opposition of the religious community who desperately maintained that science was dangerous, destructive and beguling.[173] In the Islamic world profane science never became nearly so great a concern as it did in the West because the religious community was strong enough to censure it and contain it. Gai Eaton writes:

Ibn Arabi perhaps the greatest of medieval Muslim philosophers, compared scientific delving into the secrets of nature to incest, a prying under the Mother's skirts; and this is one way of characterizing the desire of one facet of the natural world to know an-other in its most intimate contours. The penetration of nature by the fact-finding and analytic mind keeps time now with the rape of the earth we tread and with the exploitation of our fellow creatures. An incestuous conjunction of mind with matter engenders some monstrous offspring.

Our bodies (and there is a sense in which the whole world, the whole of nature, is our body) are clothing which lasts a little while then falls apart We have better things to do than pick obsessively at this clothing, placing its fragments under the microscope, making it our sole and absolute concern. Human dignity forbids such dreary obscenities.[174]

The scientific venture is in every sense illegitimate. It

carries with it the metaphysical seeds of ruin and to put the matter in plain old-fashioned language it was cursed from the outset and it cannot be expected to yield anything but disintegration and destruction.

The Triumph of Ironmongery[175]

Technology so long as it was independent of science remained geared to and controlled by human needs; once linked up with science it began to get out of hand – literally – and to exceed the human scale, subjugating, the human needs it formerly served and destroying the environment with which it was once in harmony. So it is neither science nor technology which is responsible for the crisis of the modem world, but rather the scientific technology that has resulted from the unholy combination of these once virtually separate human activities.[176]

Science's prying in the world of matter was the provenance of the electric motor, the internal combustion engine, radio, radar and a score of other techniques. These techniques differ from traditional technology as a kind and not merely in degree, for they have lured mankind into a false and perverted existence – an artificial and sub-human existence. Frithj of Schuon (Isa Nuruddin), a contemporary prodigy, and master exponent of metaphysics, has most suitably called scientific technology "ironmongery", for, indeed, in spite of how much science exalts itself, and in spite of how sophisticated it may seem, in terms of total truth, it is merely a glorified blacksmithery – a reckless, trivial toying with matter. Throughout his prolific writings, Schuon remonstrates against the reign of ironmongery:

In a certain, external sense it may be said that the great social and political evil of the West is mechanization, for it is

the machine which most directly engenders the great evils from which the world today is suffering. The machine is generally speaking characterized by the use of iron, fire and of invisible forces. To talk about a wise use of machines, of their serving the human spirit is utterly chimerical. It is in the very nature of mechanization to reduce men to slavery and to devour them entirely, leaving them nothing human, nothing above the animal level, nothing above the collective level. . . Man, who created the machine, ends by becoming its creature.[177]

There are two sides to modern technology. One aspect is industrialization which is characterized by systems geared for mass production and by total environments which force human beings to deny themselves in order to conform to the exigencies of stream-lined systematizations. The other aspect is the machine which is not overtly part of production systems but which replaces the tool and thereby usurps normal human activity (like weaving riding and tilling) and creates situations which by surpassing normal human experience denature man's existence. In discussing the technical complex we are usually considering both of these aspects together.

Jacques Ellul has devoted an entire book to the analysis of the technological system which includes machines. Ellul points out as did Ananda Coomaraswamy before him that there is a world of difference between tools and machines. Tools are small-scale instruments which faithfully serve man in helping him obtain the needs of his two nature; whereas the machine creates also needs and compels man to serve it in order to fulfil the imagined need.[178] Fllul clearly describes how the technical complex requires human beings to adopt to its "inorganic needs". lie writes:

It is necessary, then, that technique prevail over the human being. For technique this is a matter of life or death. Technique must reduce man to a technical animal the king of the slaves of technique… The enormous effort required to put this technical civilization into motion supposes that all individual effort is directed toward this good alone and that all social forces are mobilized to attain the mathematically perfect structure of the edifice… Henceforth it will be wrong for a man to escape this universal effort. It will be inadmissible for any part of the individual not to he integrated in the drive toward technization; it will be inadmissible that any man aspire to escape this necessity of the whole society. The individual will no longer be able, materially of spiritually, to disengage himself from society. Materially, he gill not he able to release himself because the technical means are so numerous that they invade his whole life and make it impossible for him to escape the collective phenomena There is no longer an uninhabited place, or any other geographical locale for the would-he solitaire. It is no longer possible to refuse entrance into a community to a highway, a high-tension line or a dam. It is vain to aspire to live alone when one is obliged to participate in all collective phenomena and to use all the collectivity's tools without which it is impossible to earn a bare subsistence… The autonomy of technique forbids the mass of to-day to choose his destiny.[179]

Bruno Bettelheim, a psychiatrist who survived the ordeal of imprisonment in the Nazi concentration camps, gained there invaluable insight into the dilemma of the technical complex, for, as he avers, the camps, more than anything else, attempted to exact the most efficient use of human material. When Bettleheim viewed this situation in retrospect he

realized that the gruesome atrocity perpetrated in the camps is the logical consequence of the technocratic estimation of men as mere machines.[180]

Bettelheim makes a sage and lucid pronouncement:

Modern man suffers from his inability to make a choice, as he sea it, between renouncing freedom… or giving up the material comforts of technology… This, as I see it, is the true conflict of our times.[181]

The pant is this, there is a very high price to be paid for the cozy life in the technical complex — we have to forfeit our true natures. In the service of machines, it is the machine and not men who have the ultimate say; for in the technocracy be it in the totalitarian world or the democratic world, the individual's rights are usurped in the name of machines and industry which "serves" the collectivity. These rights are removed suddenly in totalitarian states, while in democratic socialist states they are removed gradually but unremittingly.

The faith of the technocracy is utopian — its dream is the maximum of temporal benefit for the collectivity: physical, emotional or mental.[182] The maximum of such benefits are secured by the maximum of regimentation and industrialization. Human being are compelled to adopt themselves to the sheer quantitative imperatives of mass production and industrial efficiency they must become faceless and interchangeable parts of the system. They must relinquish their humanity and assume the place of a commodity. Similar is the situation in an ant-hill with one difference the ants busy themselves with real material needs; whereas, the denizers of the technocracy slave and scurry for a pantheon of artificial needs. In this connection Gai Eaton has written:

…It is his [man's] nature to go his own way towards a goal which infinitely transcends this pattern [of intensive production and consumption]. To condemn hint to the repetitious production of objects which have no intrinsic value, ministering not to real needs but to an insatiable geed for consumer goods, is to condemn him to futility.[183]

If one evil face of science is futility, tyranny is another, for it has slapped on iron bridle on mankind. Let us recall that it was the father of science in England Francis Bacon who first preached the right to investigate everything in order to learn how to control and exploit the natural world. "in Bacon's programme is to be found a prescription for the total scientivization of our world, from the practices of the laboratory, often themselves of an indescribable cruelty [consider the abuses perpetrated on helpless animals[down to those, no less sinister, of the modern police state.[184] As a consequence of scientivization privacy and individual rights and security have been trampled. This is one of the major theses in Gai Eaton's King of the Castle where he observes: "The contemporary world insists on straight lines, whether on the social, economic or political level."[185]

In the brain pan of the secular mind artificial needs are distilled in the name of the collectivity and decisions arc made in accordance with those "needs" and imposed on humanity with a iron fist. "Technology enables us to iron out the natural obstacles and ideology justifies the elimination of man-made obstructions.186 For example, when a technocracy might decide that every couple may give birth to only two children, or that the state should determine the upbringing of children, technology enables such a decision to be enforced and ideological propaganda persuades the populace that it is in their best interest.

The common reaction whenever objections are made to science and technology is to defend them on the grounds that they have conferred on as many advantages which over compensate the disadvantages. In defence of science people will start to enumerate what they consider the most beneficial achievements like the successes of modern medicine. which includes elimination of plague; air-travel, radio, printing press, and so on without realizing that we cannot consider the apparent advantages in isolation from all the disadvantages which have accrued from the same circumstances which were the provenance of the apparent advantages.

In this connection Phillip Sherrard has succinctly written:

The world of modern science is a single interlocking whole and it is impossible to abstract one aspect of it as if this aspect could exist independently of the other aspects It is impossible to do this because any one process, however beneficial it may seem in itself, is inextricably involved with a thousand other processes and depends upon them. If you want a product such as a car you have to have all the rest as well, from the dereliction of the oil-rigs and refineries and the motorways down to the lead poison, the carbon monoxide and the noise that ruins the life of our cities and the deadly boredom of those whose work it is to put these machines together. In any case, it is entirely spurious to sing the praises of, say. modern medicine when the type of society which has produced it, and which it presupposes, is one which has done so much to deprive man of the basic elements on which his health depends.[186]

Indeed. as Sherrard has said, modern society has bred ill-health and new diseases as well like uncurable types of herpes disease and the panic-sowing AIDS disease and cancers and a great variety of mental illnesses.

Continuing his argument, let as consider another example: air travel. How can people be so elated by the possibilities opened up by are travel, like exotic vacation and rapid business transactions, when they are not ignorant of the fact that aviation has unleashed air warfare and the indiscriminate and wanton bombings of civilian populations. Further. let those who glory in the achievement of aviation consider how much universal travel has contributed to the insipid cult of uniformity[187] the leveling of diversity, and the assimilation of the world's cultures to that way of life which is least qualitative so that little is left which is distinct, let Anne exotic — how easily the planes shuffle us from distant airport to distant airport; yet, how similar are the airports and the humanity which drones about them all too unwonderful In this manner we could go on indefinitely with examples examining both the credit and the debit side of the account; if we could not show definitively that the debit side exceeds the credit side at least we could demonstrate that man is not any happier or any securer than he was without modern technology.[188]

Those who are mesmerized by technical novelties seldom reflect that in the past and in non-technical societies people adequately managed and manage their terrestrial needs. Let us take our first example of medicine; traditional medicine is far from being rudimentary, and in many aspects it surpasses modern medicine: are we to consider the acclaim acupuncture and homeopathy is receiving in the industrial world itself as unfounded? This would be unreasonable for those persons who resort to it in such developed places, like urban Japan and Califomia choose to do so with all the benefits of modern medicine available to them, usually under government subsidization. In fact, modern medicine is not

without disadvantages and more people in the West are taking notice of the fact[189] The first criticism that is being made by the proponents of traditional medicine is that modern medicine concerns itself primarily with removing symptoms instead of administering to the root cause of ailments; whereas, the medicine they advocate seeks to redress those imbalances in the body of which occasioned the symptoms. The second criticism is that modern drugs exert too powerful an effect on the body and commonly cause serious side-effects; whereas homece pathic and herbal medicines and pressure methods like acupuncture have no side-effects or only slight side-effects. Another common criticism is that the production of modern pharmaceutics requires a high degree of technology, is capital intensive, and is commonly exploited by industry. On the other hand, the treatments (acupuncture) or preparations (herbal or homeopathic) of traditional medicines do not depend on sophisticated technical infrastructure, nor are they capital intensive. This is a fact which has already attracted the interest of several of the governments in the Third World who have grown weary of the economic burden of high-priced foreign pharmaceutics.[190]

Likewise, mankind was quite able to travel about before the advent of aviation. Al-though he could not travel so fast he could travel with a good deal more dignity than he can today, for even in the recent past, that is before the Second World War a traveller could expect to avail of his age-old rights of hospitality. So much so that in the Muslim world at least a traveller could set out without money and without needing to seek a hotel (few of which even existed).[191] Some people may object that we are romanticizing because travel in the past was also hazardous and sometimes strenuous. To this

we can only answer that it is true now we can travel (if we can wangle passports and visas) in speed and comfort, but no matter how comfortably and how fast and far we travel we cannot find that world of beauty, dignity and wonder which confronted the traveller in the past on every leg of his journey.

Indeed, we could enlarge on this argument at great length as Martin Lings and Frithjof Schuon have done so eloquently and convincingly in their books, Ancient Beliefs and Modern Superstitions[192] and light on the Ancient Worlds,[193] respectively, but this is not the place; hopefully the matter has been made sufficiently clear by the examples we have given.

In the foregoing discussion we have only attempted to show that the supposed benefits of modern technology are of highly questionable worth because they are greatly compromised by concomitant adversities. This is not to forget as Lord Northbourne has said:

…any fully valid criterion must take into account the salvation of souls.... The main item on the debit side is the thrusting into the background, obscuration and final perversion of the means of grace that alone can make life worth living at all, since through them alone is life sanctified and made acceptable to the God who gave it, and to whom it must be returned.[194]

Indeed, we have been cheated in the bargain for technology. We have relinquished everything which was useful in intellectual, spiritual and salvific terms, foolishly believing we could so obtain more happiness and security, but in reality we have not become happier

or securer. We wanted live benefits for which we gave up ten virtues and acquired five vices and when we turned to

enjoy the benefits we had purchased for so awesomely high a price we found in our hand not coins of gold but an ironmonger's fraud.

There are those who will still protest that, although there are drawbacks, further re-search and development and further reforms will eventually provide a remedy. This is analogous to the castaway adrift at sea who seeks to satiate his thirst with sea-water thereby only increasing his thirst and leading to his destruction. The analogy fits because new re-search and development inescapably brings new adversities:

The solution of each problem raises further problems more quickly than they can be dealt with, so that more and more research and more and more urgent action seem al-ways to be called for.[195]

So far we have been considering the malaise of technology in terms of how it affects mankind universally. We need to discuss how it affects Muslims in particular. The first point we have to appreciate in this connection is what Ziauddin Sardar has so rightly observed in his article "From Sweet Virtuosity to Domestic Self Reliance" in Inquiry, May 1985:

Muslim societies borrow technology from the West, but in doing so they do not and cannot get just simple hardware and techniques, but must accept along with it "the seeds of its [Western technology's) cultural origin."[196]

Sardar applauds the analogy of Susantha Goonatilake, a philosopher of science from Sri Lanka, who has so aptly "compared the behaviour of technology to that of a social gene:

…a carrier of social relations from one society to another. In being transferred from the social system in which it originated to another social context, a particular technology

in its role as social gene 'tries' to recreate aspects of the social system which produced it in the first place. Technology, therefore, is a transmitter of social relations between social systems. In being adopted by its new host, it 'takes' elements from its new environment – hardware and knowledge as well as human operators – and rearranges them so that not only does it perform its technological function but also re-creates aspects of the social system of its place of origin. It is thus like a virus, which enters a host cell whose component material it uses for its food as well as to reproduce itself.[197]

Sardar observes that historically every culture which has adopted Western technology has become "an extension of European culture and Western civilization"[198] and he cites Japan as the classic example. Sardar concludes:

Western technology, therefore, is not only an instrument of physical domination and dependency but it is also a tool of cultural imperialism.[199]

He goes on in the same article to make an astute analysis of the mechanism of what he has referred to as cultural imperialism: only that technology which suits the economic and political ends of the developing countries are exported, not those which are most suited to the local needs of the culture to which the technology is exported. The select technology made available to developing countries insures a flow of raw materials and manufactured commodities from the developed countries to the developing ones.

The only effective way of neutralizing the general Westernizing influence of Western technology is the method employed in dealing with virus infected tissue removal However, Muslim societies at present, precisely because they are "Muslim" only in name cannot be expected to deal as drastically with imported technology as by rights they should

What is lacking is an authentic and integral Islamic mentality. When and if that can be restituted, Muslims will slough off the burden of extraneous accretions as easily a snake sheds its old sign.

We believe we have shown in this essay how the secularization of the Muslim world has been brought about by an intellectual regress which is none other than a secularization of the contemporary Muslim mind This is what we called the intrinsic malaise and we maintain it is the cause of the extrinsic malaise, the evils of technology being but one of its manifestations. The real remedy and, in fact, only remedy is one which copes with the intrinsic malaise. It is to this then that we must first give our attention.

Al-Ghazzali insisted that we must have knowledge before action. We have seen in this essay that even Muslim intellectuals, with the exception of the few we have noted, are in-sufficiently aware of the different facets of the malaise which has resulted from the rampant Westernization of Muslim society. This being the case, the only recourse is to muster a nucleus scholars fully recognize the malady and are capable of presenting a tactful and powerful critique of the scientific perspective so that they may eventually prevail upon appropriate institutional authorities in both the madrasah and universities to initiate a discipline of intellectual criticism of Western secular thought with the purpose of eventually instilling this discipline into the educational system. Initially, such a discipline would have to be taught alongside the Western sciences and humanities given the strength of their persuasion Westernized Muslim countries today. This crucial step would at least equip Muslim students with the intellectual armory to quote S. Pervez Manzoor, to resist the and-religious world views and the tendentious theories

propounded by the Western disciplines. Eventually, when a sufficient section of the academic community was conversant with the errors and shortcomings of these disciplines, a preliminary reform could be made to eliminate their most pernicious aspects. Once the intellectual edifice of Western thought had been sufficiently shaken for Muslims to shed the inferiority complex which has made them cringe for over a hundred years, they could turn to their own intellectual tradition and discover what a rich heritage they had abandoned for the bleat and bauble of the myopic West. Eventually if Muslims were to place the confidence in Islamic Science which it indeed deserves they could consider what was of intellectual worth in modern science and integrate it into the Islamic world-view as did Muslims before them with the Greek, Persian, and Indian sciences.

As an auxiliary science springing from the Islamic revelation and dependent on it, Islamic science could provide a contemplative support for the realization of the real nature of man and the universe, and man's place in the universe which could help steer the Muslim world out of its secular plunge before it enters the sub-human modes of existence to join the others that have preceded them to the rock-bottom of decadence. Provided Muslims regain integral religious intelligence, which is to say adequate metaphysical and theological insight, it is conceivable that they might also redress the extrinsic malaise which has resulted from blindly imitating the West.

We don't propose that such a rectification might be accomplished by "turning back the clock", as the partisans of progressivism would doubtless accuse us, for barring a castrophic world war, a total economic collapse, some other such universal calamity which would transform the developed

world, it would be highly unrealistic to suppose, even if the Islamic personality was restituted along with the rule of Shariah, that Muslims would maintain is total boycott of Western technology. However, what can be realistically entertained is the hope that genuine education of the sort we have been discussing will foster sufficient prudence among Muslims that they would eliminate the noxious forms of Western industry and technology, and retain only what was genuinely of use and did not jeopardize the Islamic way of life directly or indirectly. On the other hand, not withstanding the foregoing it should still be recognized that many viable alternatives to modern technology which should be re-introduced in tote. Some of these are fairly obvious — like architecture, city — planning, and medicine — their preferability and utility has been observed by not a few Muslims.[200] The merit of others is appreciable but less well recognized like unmechanized and subsistence agriculture which in the past adequately supported dense populations in places like India and China and offered a dignified and materially sufficient way of life to crores of rural peasants who constituted the bulk of the population.[201] Unless considered from a vantage point of a totally different sense of values and world-view, including a different economic axiom and a distinct aesthetic, the merit of agriculture and traditional crafts can not be comprehended. Nonetheless, these Islamic technologies furnish a qualitatively superior alternative to Western technology, for they are in harmony with the true nature of man and in equilibrium with the natural environment.

In addition to alternatives which the Islamic legacy can provide, the West itself has in recent decades devoted a great deal of energy for the promotion of alternative technologies

which also have pre ten fiat for introduction into an Islamic world. Among those who have expounded and promoted it was the late British thinker E. F. Schumacher, who presented his ideas about new technology, economy, and business ethic in Small Is Beautiful and Good Work.[202] Intermediate technology opposes the established imperatives of profit and progress and aims to serve the physical, mental and spiritual needs of people rather than maximize production. It proposes a complete re-structuring of business economy and emphasins smaller working units, regional workplaces and reviewable energy resource like wind, water and solar radiation. Although Ziauddin Sardar has argued that intermediate technology is also a Western endeavour which cannot be grafted in Muslim countries for lack of a sophisticated indigenous infrastructure, it is on the contrary quite conceivable that intermediate technology might be put to good use in the Muslim world provided an authentic Islamic sense of values was to gain ascendancy. The proof of this is that the Muslim world has already virtually adopted a hard technology which requires a maximum of training and material — nothing is to prevent Muslims from adopting or adapting technology which re-quires a minimum of training and material as soon they can see that their genuine priorities are other than the priorities of the industrial world.

However, it is not our purpose in this essay to speculate in further detail about the nature of a genuine Islamic technology of the future, for, as we have been insisting through-out, a profound change of attitude in intellectual and administrative quarters is an absolute prerequisite to the restitution of an authentic Islamic science and technology. While Muslims fret away their lives in intellectual and cultural servitude to the West, their is no hope for them to implement

an Islamic alternative. Muslims have to be disillusioned and then re-educated in their own intellectual tradition.

NOTES

[1] Peter Moore, "Science and Technology in Traditional Islam and in the Modern World", Studies in Comparative Religion, Winter 1977, p. 44.

[2] This is a famous hadith, appearing in Muslim and Tirmidhi in the chapters on faith and, as well, in Ibn Majah, Darimi and Ahmad. See, for example, Sahih Muslim, 4th ed., trans. A. H. Siddiqi (Lahore, Ashraf, 1980), 1, 86.

[3] MAAS Journal of Islamic Science is a bi-annual publication of the Muslim Association for the Advancement of Science at Faridi House, Sir Syed Nagar, Aligarh, India.

[4] Dr. Nasr was born in Tehran. He studied in the West and gained his B. Sc. degree from the Massachusetts Institute of Technology, and his M. A. and Ph. D. from Harvard University where he studied the History of Science and Learning with special attention on Islamic Science and Philosophy. From 1958 to 1962 he was Professor of the History of Science and Philosophy at Tehran University. In 1962 he was visiting lecturer at Harvard University where he taught again in the summer of 1965. In 1964-65 he was first holder of the Aga Khan Chair of Islamic Studies at the American University of Beirut Dr. Nasr has lectured around the world in international symposiums and conferences: America, Europe, The Middle East, Pakistan, India. Japan and Australia. In 1981 he was the first Oriental invited to give the prestigious Gifford Lectures in Edinburgh, Formerly Chancellor of the Arya-Mehr University of Technology in

Iran, he is now teaching at George Washington University in America. Dr. Nasr is a prolific and gifted writer. His books which are directly related to the topic of this essay include: Islamic Science.' an Illustrated Study, Man and Nature, The Spiritual Crisis of Modern Alan, Islam and the Plight of the Modern World, Science and Civilization in Islam, Western Science and Asian Culture, Islamic Life and Thought and Knowledge and the Sacred. The last work is soon to be reprinted in Pakistan; the three previous books listed were reprinted by Suhail Academy in Lahore in 1985.

[5] S. H. Nasr, "Intellect and intuition: Their Relation in the Islamic Perspective". Studies in Comparative Religion, Winter-Spring 1979, p. 65.

[6] At-Ghazzali, Mishkat al-Anwar, trans. W. H. T. Gairdner (London, 1924; rpt. Lahore, Pakistan: Ashraf, 1952) pp. 80—82.

[7] See, for example, Martin Lings, The Book of Certainty (New York, Weiser, 1974), Ch. XII, "The Sun and the Moon".

[8] At-Ghazzali The Book of Knowledge, trans. N. A. Faris (Lahore, P. K.: Ashraf, 1962), pp. 224-225

[9] Nasr, p. 74. See also Rene Guenon, East and West, trans. W. Massey (London: L. roc, 1941), P. 168.

[10] Al-Ghazzali, p. 235.

[11] Rene Guenon, "Civilization and Progress", Iqbal Review, April—June 1985, p. 1. This article is reprinted from East and West (Vide No. 9) where it appears as a chapter under the sane title.

[12] Rene Guenon, The Reign of Quantity, tram. Lord Northbourne (London, 1953; rpt. Lahore, Pakistan: Suhail Academy, 1983), p. 13.

[13] The doctrine of the microcosm is common to all

sapiental traditions including Islam. The Qur'anic authority for the doctrine is found in the following verse: "In time we shall make them fully understand our messages [through what they perceive] in the utmost horizons [of the universe] and within themselves, so that it will become clear to them that this [revelation] is the truth." (41:53 trans. M. Asad).

[14] Osman Bakr, "The Question of Methodology in Islamic Science", Muslim Education Quarterly, Autumn 1984, p. 16.

[15] See S. H. Nast, Knowledge and the Sacred (Edinburgh University, 1981), pp. 114115 where the unconventional methodologies of Dirac, Bohr, de Broglie, and D. Bohm as well as Einstein and Heisenberg are mentioned. Osman Bakr mentions in this connection R. Oppenheimer E. S. Schrodinger and Frithjof Capra (see Bakr, p. 17). For further information see F. Capra, The Tao of Physics, New York, 1977; R. G. Shi, The Tao of Science: An Essay on Western Knowledge and Eastern Wisdom, Cambridge, Mass., 1958; E. Schrodinger, My View of the World, Cambridge, 1964; M. Talbot, Mysticism and the New Physics, London, 1981.

[16] Bakr, p. 17.

[17] See Guen on, East and West, pp. 140-143.

[18] Rene Guenon, Crisis of the Modern World, trans. Pallis and Nicholson (London, 1962; rpt Lahore, Pakistan: Suhail Academy, 1981), p. 40.

[19] Rene Guenon, East and West, p. 138.

[20] Rene Guenon, East and West, p. 138.

[21] Ibid., pp. 140—143.

[22] Ibid., p. 138.

[23] Ibid., pp. 140141.

[24] Ibid., p. 141.

[25] W. N. Perry, A Treasury of Traditional Wisdom, quoted in E. F. Schumacher, A Guide for the Perplexed (U.K., 1977; rpt. London: Abacus, 1984), p. 78.

[26] Schumacher, p. 78.

[27] Titus Burckhardt, "Cosmology and Modern Science", in The Sword of Gnosis, ed. J. Needleman (London: Penguin Books, 1974), pp. 118-119.

[28] I am indebted for the observations about individualism and the epithat "The King dom of Man" to Tage Lindborn, The Tares and the Good Grain, trans. Alvin Moore (Macon, Ga: Mercer, 1983), "Paradise and Utopia", pp. 5—14.

[29] See Rene Guenon, "The Superstition of Science", Iqbal Review, Oct. — Dec. 1985, p. 2. This article is reprinted from the chapter of the same title in Guenon, East and West.

[30] Ibid., pp. 3-4.

[31] Ibid., p.3.

[32] Mid, p. 6.

[33] Guenon, East and West, p. 163. See his entire chapter "Agreement on Principles" for a masterly discussion of principles. Ibid., pp 163—188.

[34] Guenon, "Superstition of Science", p. 6.

[35] Ibid., p. 7.

[36] Ibid.

[37] Guenon, Crisis of the Modern World, p. 42.

[38] Saki, p. 28, n. 2.

[39] Vide n. 15.

[40] Guenon, Crisis of the Modern World, p. 42.

[41] Quoted in Titus Burckhardt, p. 137.

[42] Muhammad Abduh in Egypt and Sayyid Ahmad Khan in India were among the first apologists to pretend evolutionism was compatible with religious doctrine. More '

recently even Muhammad Iqbal the poet-philosopher endorsed the theory in Reconstruction of Religious Thought. In the contemporary scene Dr. Israr Ahmad of Lahore advocates the same conciliatory notion as does Fateh Mali Khan in God the Universe and Man; Dr. Wasiullah Khan in Evolution and the Quran and Dr. Maurice Bucaille, A New Muslim from France, in Origin of Man.

[43] For information on the counter-evolution movement see Martin Lings, "The Problems of Modern Knowledge and the Understanding of the Quran" Iqbal Review, April—June 1986. See also "Appendix l", Ancient Beliefs and Modern Superstitions, 2nd ed., (London: Unwin, 1980), pp. 77—82. See also Evan Shute, Flaws in the Theory of Evolution, (Canada: Temside, 1966); Michael Denton, Evolution: A Theory in Crisis, (Burnett Books, 1985); Douglas Dewar, The Transformist illusion (Tenn., U.S.: Dehoff, 1957); N. D. Newell, Creation and Evolution: Myth Reality? (New York: Columbia University Press, 1982). See also "Creation the Best Alter-native on Origins" by Richard Bliss in Muslim Education Quarterly, Summer 1985 for an outline of Creationist criticism of evolutionism as well as useful references on the subject. There are several institutions which the protagonists of creationism have established in North America; one is in San Diego — the Institute for Creation Research.

[44] Dr. Nast remarks that Copernicus lunar theory is the same as was proposed by Ibn al-Shatir, an astronomer in Damascus two centuries earlier. Dr. Nast states further: "All that is astronomically new in Copernicus can be found essentially in the school of al-Tusi and his students". See S. H. Nasr, Science and Civilization in Islam (Cam-bridge, U.S.A., 1968; rpt Lahore, P.K.: Suhail Academy, 1983), pp. 172-174.

[45] Ibid., pp. 174-75.

[46] Or. Nasr deals with this theme as it concerns the Islamic tradition in his Introduction to Islamic Cosmological Doctrines, (London: 1978), Chapter 15.

[47] See also Guenon, Crisis of the Modern World, p. 44 for a discussion of the bifurcation of astronomy and the subsequent debasement of the science.

[48] Ibid.

[49] Ibid.

[50] Ibid., p. 44.

[51] Guenon, "The Superstition of Science", p. 7.

[52] Guenon, Crisis of the Modern World, p. 45.

[53] Dr. Nasr remarks in his notes to the passage we are quoting: "For this correspondence and in fact the principles of alchemy in general see the unrivalled work of T. Burckhardt, Alchemy: Science of the Cosmos, Science of the Soul, trans. by W. Stoddart (London: 1967)." See also H. E. Stapleton and M. Hedayat Hussain "Three Arabic Treatises on Alchemy by Muhammad Ibn Umail al-Tamimi", Memoirs of the Royal Asiatic Society Bengal, vol. xii (I), 1933; A. E. Waite, The Secret Tradition of Alchemy, Its Development and Records (New York, 1926) and R. A. Schwaller de Lubicz, Sacred Science, 1982 ed. New York. Inner Traditions. 1961), pp. 7–9.

[54] Dr. Nasr notates: "The latter connection has turned many modern students of psychology to the study of alchemy. But although there is a profound link between the two, it must be emphasized that this link is not at all to be discovered through the Jungian interpretation of "archetypes" which belong more to the garbage can of humanity than to the luminous world of the spirit. Jung's work on this subject, despite its interesting illustrations, is completely devoid of the

metaphysical foundations necessary for the understanding of the subject"

[55] Dr. Nasr notates: See M. Eliade, The Forge and the Crucible, tram by S. Corrin, (New York: 1962).

[56] Dr. Nasr notates: On Chinese alchemy, see N. Sivin, Chinese Alchemy: Preliminary Studies, (Cambridge: 1968).

[57] Dr. Nasr notates: See Nasr, Science and Civilization in Islam.

[58] See Guenon, Crisis, p. 45.

[59] Ibid.

[60] Ibid.

[61] For a peerless exposition of traditional science, see Rene Guenon, The Reign of Quantity, which Guenon himself indicates, was written to provide a general idea of the true nature of traditional sciences and at the same time "bringing into prominence the abyss separating them front profane sciences which are something like a caricature or parody of them." (p. 14) See also Guenon, East and West.

[62] Bukhari and Muslim from Abu Said. See Mishkat. tr. Robson, Ill, p. 1114.

[63] Qur'an 56: I1, M. Asad's translation, The Message of the Quran, (Gibralter, Dar al-Andalus, 1980).

[64] Ibid., p. 830, n. 4.

[65] khan from Zubair bin Ads. See Riyad As-Salihin trans. Abdur Rahman Shad with Arabic text, (Lahore: Kati Publications, 1984), p. 78.

[66] Consider for example the hadith from Anas: "Among the signs of the Hour are the disappearance of knowledge, the prevalence of ignorance, drinking of wine and adultery." Reported in Sahih al-Bukhari: Kitabu 1-11m – 80. Sec translation of Mulish, Khan, 6 ed., (Lahore, Kati, 1983).

[67] Guenon, East and West, pp. 30-31. The entire chapter

was reprinted as an article in Iqbal Review, Spring 1985, under the same title: "Civilization and Progress".

[68] See, for example: Guenon, "Introduction", The Reign of Quantity, pp. 7–18: "Fore-word" and Chapter I, "The Dark Age", Crisis of the Modern World, pp. vi – xii and pp. 1–14 respectively: Nasr, "Knowledge and Its Decasualization", Knowledge and the Sacred, especially chap. 1: Huston Smith, "Hope, Yes: Progress No", Forgotten Truth, New York, 1976; rpt Lahore, Pakistan: Suhail Academy, 1981). pp. 118–145; Schumacher. "On Philosophical Maps". A Guide for the Perplexed; Lord North-bourne, Looking Back on Progress, (London, 1970: rpt. Lahore: Suhail Academy, 1981); Gai Eaton, "Introduction", King of the Castle, (London. 1977: rpt. Lahore, Pakistan: Su hail Academy, 1981), pp. 7–22. Also see Phillip Sherrard, "Science and Technology in Traditional Islam and in the Modern World". Studies in Comparative Religion, Winter 1977; Lindbom. "The Time of Harvest" and "Paradise and Utopia", The Tares and the Good Grain, pp. 1–14; Moore, "Modern Science and the De-humanization of Man" vide n. 1.

[69] Quoted in Burckhardt, "Cosmology and Modern Science", p. 186.

[70] Tahafut al-Falassfah quoted by Gairdncr in Introduction to Mishkat al-Anwar, trans. W. 11. T. Gairdner (Lahore: Ashraf, 1972), p. 50.

[71] Burckhardt p. 186.

[72] Mishkat al-Masabih from Tirmidhi and Ibn Majah, trans. J. Robson (Lahore: Ashraf, 1964), 111, p. 1075.

[73] Gai Eaton, The Richest Vein, (London: Faber and Faber. 1999).P 13.

[74] Frithjof Schuon, Spiritual Perspectives and Human

Facts (London, Perennial Books, 1969), p. 23.

[75] "I did not create men and jinn except to worship Me." (Qur'an 51:56).

[76] Cited by al-Ghazzali in lhya Ulum ud Din. Sec, The Book of Knowledge, trans. Faris,. p. 30. See also Mishkat al-Masabih trans. Fazlul Karim as Al-Hadis (Lahore: Book House, 1940), I, 351. This hadith is narrated by Anas, lbn Majah.

[77] Ibid., pp. 30-35.

[78] Cited by AI-Ghazzali in Ihya. See, The Book of Knowledge, trans. Faris, p. 30.

[79] See Ibn Majah, Introduction, 23:1 and also the prayer from Muslim cited in Payers of Muhammad, compiled and translated by A. H. Farid, 3rd. ed., (Lahore: Ashraf, 1969), pp. 224-225.

[80] Al-Ghazzali in Ihya. See, The Book of Knowledge, trans. Faris, p. 78. (p. 27 in original Arabic).

[81] Al-Ghazzali, Munqidh min al-Dalal, trans. by M. Watt in Faith and Practice of Al-Ghazzali (Lahore: Ashraf, 1963 ed.), pp. 34-35.

[82] Ibid., p. 34.

[83] F. Rahman remarks in a discussion about Al-Ghazzali in Prophecy in Islam (London: Allen & Unwin, 1958), p. 95: "... he began to write esoteric treatises in which he admits philosophical doctrines which he rejects in works meant for the public". Long before F. Rahman, ibn Tufail (d. 1185 A.D.) also accused al-Ghazzali of inconsistency alleging that he is "bound in one place and loose in another and has denied certain things and then declared them to be true." See M. M. Sharif, A History of Muslim Philosophy, (Wiesbaden, Otto Harrassowitz 1963), I, pp. 639. Similarly ibn Rushd satirized al-Ghazzali for the duplicity he believed he was

guilty of: "One day you area Yemenite when you meet a man from Yemen. But when you see someone from Ma'add you assert you are from Adnan!" (Ibid). The erudite successor of al-Ghazzali, Fakhr al-Din Razi was subjected to same accusations of inconsistency for condemning esoteric sciences ('Ulum gharibah) on the one hand and expounding them on the other. M. M. Sharif observes: "There remain among his writings treatises on theurgy (talismat), geomancy (rand), physiognomy (firasah), astrology and other similar subjects. It is curious that Imam Razi wrote all these treatises, although he was opposed to certain of these subjects like astrology which he attacked throughout his writings. He was, however, more sympathetic to the study of esoteric sciences than either the theologians or the philosophers, as is illustrated by his defence of alchemy against the charges of ibn Sina." (Ibid., I., p. 650).

The critics who charge al-Ghazzali and Razi with duplicity should have considered the matter more carefully before jumping to conclusions. Did they really think that such intellectual giants as al-Ghazzali and Razi could have been capable of such blatant contradiction and that such contradictions would have escaped the notice of the other great men who came after. If these critics did not suffer from the limitations of crude rationalism, they could have seen that the esoteric science al-Ghazzali and Razi endorsed and expounded was one thing; the exoteric sciences they deprecated was something else. The mistake is all too easily made in considering the two identical, and this explains why all al-Ghazzali did not promulgate his esoteric views to the public at large.

[84] See M. Saeed Sheikh, Al-Ghazzali Metaphysics" in M. M. Sharif, A History of Muslim Philosophy, (Wiesbaden,

1963) I, pp. 587-588: Sami M. Najm, "The Place and Function of Doubt in the Philosophies of Descartes and a1-Ghazzali" and also Watt, The Faith and Practice of al-Ghazzali, p. 12. See also Muhammad Iqbal The Reconstruction of Religious Thought (London: Humphey Milford, 1934), p. 122

[85] Osman Bake, "The Meaning and Significane of Doubt in Al-Ghazzali's Philosophy", Iqbal Review, April—June 1985, pp. 29-48.

[86] Munqidh etc. in The Faith and Practice of Al-Ghazzali, trans. Watt, p. 25.

[87] Ibid.. on. 23-24.

[88] Ibid., p. 24.

[89] Ibid.

[90] Bakr, "The Meaning and Significance of Doubt etc." p.37.

[91] Viden. 15.

[92] Nasr. Knowledge and the Sacred, p. 114.

[93] Lord Northbourne, "Chance", Studies in Comparative Religion, Winter 1972. p. 24.

[94] I. R. al-Faruqi Islamization of Knowledge (Washington, D. C.: International Institute of Islamic Thought, 1982).

[95] Nast, Islamic Life and Thought, p. 155.

[96] Ibid., pp. 153-155.

[97] Ibid., p. 157.

[98] This hadith is narrated by the late Muhaddith, Sheikh Muhammad Zakariyyah in "Virtues of Zikr," p. 66 in Tablighi Nisab (Lahore. Kutab Khana Faizi, n.d.). Maulana Zakariyyah was one of the foremost muhaddith of the subcontinent during this cen Wry. In the same place he relates several ahadith to the same effect, among them one from Anas:

"Meditation over the Creation of Allah is better than worship for eighty years".

[99] Vide n. 72.

[100] Frithjof Schuon: Artist and Metaphysician, (a pamphlet) (Bloomington, US: World Wisdom Books, 1981).

[101] Ibid.

[102] Schuon, Spiritual Perspectives etc. p. 1.

[103] For a discussion of "presential" knowledge see Nast, "Intellect and Intuition etc.", (Vide n. 5) pp. 73-74.

[104] Mishkat al.Masabih from Ibn Majah and Tirmidhi. See Al-Hadis, trans. Maulana Fazlul Karim, I, p. 350.

[105] Nast, Islamic Life and Thought, p. 153.

[106] Guenon, Crisis of the Modern World, pp. 28-36.

[107] Ibid., pp. 32-33.

[108] Northbourne, Religion in the Modern World, (London, 1970; rpt. Lahore, Pakistan, Suhail Academy, 1981), p. 22.

[109] Dr. Syed al-Naquib at Attas. ed., Aims and Objectives of Islamic Education, (Jeddah: King Abdul Aziz University, 1979). pp. 3-4.

[110] Ibid., pp. 4-5.

[111] Ibid., pp. 4-7.

[112] Guenon. The Superstition of Science, p. 61.

[113] Guenon, East and West, p. 166.

[114] Ibn Sina in Osman Bakr, The Question of Methodology in Islamic Science, p. 20.

[115] Ibid. p. 18.

[116] Hadith Qudsi. This hadith is quoted by Maulana Ashraf Thanvi, perhaps the fore-most authority on Islam in the subcontinent during this century, in Bada-i-'a, Lahore, Ku tub Khana Jameelah, n. d.), p. 140.

[117] Bakr. The Question of Methodology etc., p. 21.

[118] Ibid.

[119] On the Qur'anic premises of this doctrine, see F. Schuon, Dimensions of Islamic, (London: Allen and Unwin. 1970), pp. 146-147.

[120] Sheikh Zauqi Shah, Sirr-e-Dilbaran (Karachi: Mehtil Zauqiyyah 1388 A. H.).

[121] Bakr, The Question of Methodology etc., p. 21.

[122] Osman Bakr remarks in a footnote in The Question of Methodology etc., p. 29, n. 22: "Man possesses within himself the complex faculties of the various souls: the mineral soul (ruh al-aqdiyah), the vegetative soul al-nafs al-nabatiyah), the animal soul (al-nafs al-hayawaniyah) and the rational soul (al-nafs al-natiqah Though a complete knowledge of himself as the microcosm, he therefore knows the Universe the macrocosm. See Ibn Sina's treatment of this theme in Nasr. Introduction to Islamic Cosmological Doctrines, (hap. 14."

[123] Consider in this respect the Qur'anic verse: "God is the Light of the Heavens and the Earth..." (Qur'an 24:35) and the verse: God is the friend of the believers, He brings them forth from darkness unto light (Qur'an 2:2571.

[124] Bakr, The Question of Methodology etc.. p. 21.

[125] Ibid.

[126] Ibid.

[127] Ibid.

[128] Ibn Majah, Tirmidhi, Vide no. 104.

[129] Ibn Majah: Abwab al-Zuhd: Bab al-Tawakkul wal-Yagin. Narrated by 'Amr ibn al-'As

[130] AI-Ghazzali lives this hadith in Kimia Sa'adah (The Alchemy of Happiness). Al-Nawawi said that it is not established as a hadith, and al-Muzaffar said that it is not known with a chain of transmission (isnad) reaching back to the Prophet (SAAS). Ubayd Allah Sindi al-Muhaddith said

this is a saying of Hazrat All. Either way it is a statement the truth of which is guaranteed by virtue of authority. Apart from this it is a saying which is to be valued for its implicit truth. for, as Sheikh Ibn al-Arabi has said, it is sound from the point of view of kashf (inspiration), in other words, its truth is recognized intuitively. This saying has been quoted extensively by saints and sages of Islam on account of its profound significance.

[131] Bakr, The Question of Methodology etc., p. 25.

[132] Ibid., p. 25.

[133] ' Dr. Nast describes that a segment of modern physicists including David Bohm and Frithjof Capra have questioned the standing notions of reality and speak "of an 'implicate order' resembling certain Oriental cosmological doctrines". (Knowledge and the Sacred, p. 115). This is evident from the title of Capra's books, The Tao of Physics. (vide n. 15). We quoted a passage earlier in this essay from Lord North-bourne where he remarks: "All that the physicists can rightly be said to have demonstrated is that the principle of order does not reside in the material aspect of things". (Vide no. 93). This is the "implicate order" which D. Bohm speaks about Nasr refers to the crisis confronting "frontier" physicists and then remarks: "No wonder that during recent years there have appeared a score of works seeking to relate modern physics to Oriental esoteric doctrines, some comparing nothingness of modern physics to the Buddhist doctrine of the impermanence of things, others the constant motion of particles to the cosmic dance of Sina, and yet others the idea of emptiness and the vacuum of modern physics to the Taoist void and similar conceptions... the fact that there is and has been much interest even among such leading physicists as Erwin Schrodinger, Carl Friedrich Von

Weizacker, and Bohm, as well as many others, in Oriental cosmological and metaphysical teachings points to a grouping, even within physics, which is the heart of modern science, for the sacred and a world view not bound by the reductionism imposed upon the nature of reality as such. (Knowledge and the Sacred, p. 116).

[134] Bakr, The Question of Methodology etc., p. 26.

[135] Ibid.

[136] Ibid.

[137] Ibid., p. 22.

[138] Ibid., pp. 22-23.

[139] Burckhardt, Cosmology and Modem Science, p. 116.

[140] Bakr, The Question of Methodology etc., p. 27.

[141] Ibid., p. 18.

[142] See AI-Ghazzali Mishkat al-Anwar, trans., p. 83.

[143] Moore, p. 49.

[144] Northbourne, Chance, p. 27.

[145] Bakr, The Question of Methodology etc., p. 19.

[146] Cenon, Crisis of the Modern World, p. 62.

[147] Ibid., pp. 62-63.

[148] Phillip Sherrard, "Modern Science and the Dehumanization of Man", Studies in Com. putative Religion, Spring 1976, pp. 74-92.

[149] Moore. p. 42.

[150] Ibid.

[151] "Prometheus", Encyclopedia Britannica 1985 ed.

[152] Moore, p. 49.

[153] S. H. Nasr, quoted in Moore, p 52

[154] A celebrated historian of science.

[155] Moore, p. 44.

[156] Guenon, 'Civilization and Progress', pp. 9-10.

[157] Ibid., p. 10.

[158] Eaton, King of the Castle, p. 39.

[159] Mishkat al-Masabih, trans. Fazlul Karim, I. p. 747 The hadith comes from Ahmad and Baihaqi

[160] (Tirmidhi) Ibid., II, 742.

[161] Moore, p. 52.

[162] Sherrard, p. 80.

[163] Moore. p.41.

[164] Ibid.

[165] Parvez Manzoor, "Re-educating the Muslim Intellectual", Inquiry, July 1985. p. 39

[166] Sherrard, p. 81

[167] Moore, pp. 41-42.

[168] Nasr, Islamic Life and Thought, p. 155.

[169] Sherrard, p. 89.

[170] Northbourne, Religion in the Modern World, p. 77.

[171] Northbourne, Religion etc., p. 48. I am indebted to Lord Northbourne for the argument here as well as the quote.

[172] Sherrard, p. 89.

[173] Eaton, King of the Castle, p. 150.

[174] Ibid., p. 151.

[175] This epithet is originally F. Schuon's Sec. Ibid., p. 82.

[176] Moore, p. 44.

[177] Schuon, Spiritual Perspectives and Human Facts, p. 21.

[178] Jacques Ellul in Moore, p. 48.

[179] Ellul in Moore. pp. 47-48.

[180] Eaton, King of the Castle, p. 38.

[181] Eaton, King of the Castle, p. 52.

[182] Northbourne, Looking Back on Progress, p. 82.

[183] Eaton, King of the Castle, p. 52.

[184] Sherrard, p. 82.

[185] Eaton, King of the Castle, p. 45.

[186] Sherrard, p. 91.

[187] For the elucidation of this motif see Guenon "Uniformity Against .Unity", The Reign of Quantity, especially pp. 66-67.

[188] I am indebted for the credit-debit analogy drawn here to Lord Northbourne. See his Religion in the Modern World, p. 53.

[189] Traditional Islamic Medicine has been greatly promoted by the Hamdard National Foundation of Pakistan. Its president, Hakim Mohammad Said has been outspoken in his support of not only traditional Islamic medicine but indigenous medicines of other cultures including the Chinese and he has proved an able exponent of tradition-al medicine. Hakim Said has enumerated the major shortcomings of Western medicine in his book: Traditional Greco-Arabic and Modern Western Medicine Con-

flict or Symbiosis (Karachi, The Hamdard Foundation, n.d.).

Hakim Muinuddin Chisti, a Muslim convert from the United Stites, is a knowledge able practitioner of traditional medicine and also a qualified doctor in alleopathy in the United States. In conjunction with Robert Thomson he has recently produced an encyclopedia of traditional medicine: Grosser Encyclopedia of Naturopathy, published by Grosset and Dunlop, U.S. Hakim Chisti enjoys complete knowledge of both alleopathic and naturopathic medicine, and he is therefore one of the few people who are really qualified to compare the two medicines. Ile has proved an able exponent of traditional medicine and a strong critic of alleopathy. Ile is devoted to promoting traditional medicine and is at present working on yet another encyclopedia on the subject.

[190] See Dr. Akbar Mohammad Ali, "Traditional Medicine in Africa." Inquiry, Sept. 1985. See also "When Medicine Becomes :r Disease," Arabia, March 1986.

[191] One need not refer so far back to those famed travellers of antiquity Ibn Batuta and Ibn Jubayr to learn how much respect and solicitude was lavished on travellers, for we can learn of it from the travels of the Muhammad Asad. an Austrian convert to Islam, just after the First World War. See his book. The Road to Mecca (London, Max Reinhardt. 1954); where he describing his wandering in the Middle East. Iran and Afghanistan.

[192] Martin Lings. Ancient Beliefs and Modern Superstitions (London: Perennial Books. 1965).

[193] Frithjof Sehuon, Light on the Ancient Worlds, it. Lord Northbourne (London. Perennial Books. 1965).

[194] Northbourne Religion in the Modern World, p. 53.

[195] Ibid., p. 55.

[196] Ziauddin Sardar. "From Sweet Virtuosity to Domestic Self Reliance", Inquiry May 1985,p. 42.

[197] Ibid. p. 43.

[198] Ibid., p. 42.

[199] Ibid.

[200] The famous Egyptian architect Hasan lathy has greatly promoted integrally Islamic architecture during the last forty years. Further, he has eloquently expounded the basic premises of Islamic architecture. See for example his book Architecture for the Poor. An article describing the work of Hasan lathy appeared in Inquiry in June 1984: "For Prince and Peasant". A new Muslim from the late Titus Burckhardt, a new Muslim from Switzerland, likewise spent much effort in promoting and ex-pounding Islamic architecture. See particularly his Fez, City of Islam, Moorish Culture in Spain

and Art of Islam. As for Islamic medicine see our common is in n. 189.

[201] Lord Northbourne writes in a chapter "A Glance at Agriculture" in Looking Back on Progress, p. 81: "It is undeniable that very dense populations have fed themselves for long periods without modem techniques but their approach to life and its problems and their sense of values were so different from ours that we cannot as a society even understood them, let alone live as they did". In substantiation of this thesis Lord Northbourne invites us to see for example, Dr. S. T. Wrench, The Wheel of Health (London: C. W. Danial Co., 1938), a study of the Hunza people of Northern Pakistan: and F. II. King and Mrs. King, Farmers of Forty Centuries, (Madison, U.S.A. 1911), a study of Chinese peasantries. Lord Northbourne's chapter just mentioned offers sonic very interesting reflections on modern agriculture and traditional subsistence agriculture exposing sonic of the modern presumptions. See the Green Revolution An Obituary,' Inquiry. March 1986 for a realistic criticism of high technology, in agriculture.

[202] E. F. Schumacher, Small is beautiful, (U.K.. 1973: rpt London: Abacus, 1974) Good Work, (U.K., 1979: rpt London: Abacus, 1980).