CHAPTER XII

SUMMARY
The doctrine of Islam has reached us through the Holy Quran and the sayings, actions and sanctions of the Holy Prophet (may the peace and blessings of Allah be on him). Our ethics is based on self purification and in correlating reason with religion in such a way that false notions and flimsy arguments may give way to positive thinking. Thus it is our duty to understand the details concerning the creation of the biosphere, the structural adaptibility of human body and the wisdom of breast-feeding a baby for thirty months. Quranic injunctions concerning dietary and dental hygiene are absolutely clear and we have been ordained to shun environmental pollution. It is therefore, the duty of modern muslim scholars to provide scientific explanation for these sanctions as also for the prohibiting orders against all kinds of intoxicants. We have to teach the common man the significance and value of our way of slaughtering food animals and tell them that they should be kind to animals and should not work for their own destruction.

Urbanization and industrialization though good for the progress of mankind also damages the environment. A knowledge of Islamic principles concerning personal and community hygiene is thus of paramount importance. We have to adopt these principles in order to live a happy and prosperous life on this earth. And this is the subject matter of the present thesis. The author has tried to explain how the Almighty Allah comprehended in his design the Sky which was all a haze, created the heavens and
formed the earth.

The presence of smoke in the early stages of the universe as referred to in the Holy Quran corresponds exactly to the concept of primary nebula of gaseous material of modern scientists. Similarly the Quranic teaching that Allah has created every living object from water is a well established fact of biology today. As the temperature of the globe became sufficiently low to permit the formation of compounds, the atoms of Hydrogen, Oxygen, Nitrogen and Carbon joined together in various combinations. Water was formed by the combination of Hydrogen and Oxygen and this became of paramount importance from the point of view of biology. It was and is even now the most essential component of living matter. In fact about ninety percent of anything living is water.

Allah created the human being in stages. In the first instance certain basic constituents were produced. These constituents then joined together to form compounds which provided the necessary nutrients to the developing embryo. Bones were formed and these got covered with flesh and when spirit was breathed in such a mould of man, it became alive.

The teaching imparted in the Quranic revelation that Allah has created man in the goodliest form becomes clear when we find that our upright posture is highly advantageous than that of the lower animals which has to walk horizontally. Human skull is certainly unique. It consists of a number of strong, hard and compact bones which are firmly and rigidly joined together
to form the base of the skull which holds the brain. Our brain
can store each item of memory so much so that even after seventy
years of activity it may contain as many as fifteen billion
separate bits of information. Marvellous indeed are the ways
of Allah in making us the wisest of His creations. As pointed
out by Moulana Abdul Majid Daryabadi (1957), if we only try to
reflect on the marvellous structure of the atom and on the still
more marvellous nature of human mind, we become aware of the
truth that Allah is all designing, all powerful and infinitely
wise.

The phenomenon of human reproduction as revealed in the
Holy Quran proves beyond doubt the truthfulness of the word of
Allah. So close is the similarity between the teachings of the
Holy Quran and the process that has so far been discovered by
the biologists that one is forced to admit the all time and all
embrassing virtue of Quranic Science.

The million cells in the human body are of different
form, size and shape. Of these the female egg is the largest
while the male sperm is the smallest. A woman is born with a
certain compliment of immature eggs in the ovaries whereas
millions of sperm cells are deposited by a male at any one time.
This is because a large number of these perish in the vagina and
it is to be made sure that the mature egg present in the ovary
is fertilized within twenty four hours of its being cast free
from the ovary. In this way a human being starts existence
through the mingling of the fluids of the two sexes. It gets
lodged safely in the body of the mother and starts developing.

Once the baby is born, it becomes incumbent on the mother to breast-feed the child for two full years. This is necessary because there is no substitute for the mothers' milk. A survey made in England showed that while 2-3 percent of the breast-fed infants died within one year, the mortality rate in the case of bottle-fed babies was 12.1%. In fact the Holy Prophet (may the peace and blessings of Allah be on him) has advised the Ummah that it is better to continue suckling for another six months and accordingly to modern researches this period of thirty months is the ideal duration for breast-feeding. But Allah never causes undue suffering to his creation and no one is burdened beyond his capacity. If therefore, nursing is not possible for some genuine reason, substitute feeding by employing a foster mother is permissible. Those who cannot afford to have a foster mother may feed the baby on the milk of the cow or a goat by adding water and sugar to it and bringing it as close to human milk as possible.

The parents need to pay special attention to hygiene in childhood and the children should be provided with abundance of clean, absorbant and loose clothing. They have to be treated with affection. The Holy Prophet (may the peace and blessings of Allah be on him) likened the children with the fragrance of the heavens (Wajidi, 1978).

Eating may be considered a part of religion in the sense that definite prescriptions have been revealed in the Holy Quran
with respect to the kind of food which can be consumed by the believers. While all good and clean things contributing to the building of the body may be eaten, blood, flesh of swine and carcasses of animals cannot be eaten. And this is what it should be. Carrion and blood are articles of food which cause disgust to any refined person. A number of harmful parasites live in the blood and several groups of microorganisms thrive well in dead and decomposed animal tissues. Pork and ham is also very rich in cholestrol and is harmful to us. The helminth parasite, *Trichinella spiralis* also occurs in pigs and causes trichinosis. As compared to this, the meat of sheep, goats and cattle is rich in fat whereas that of camel provides the much needed salts to people who live in the tropics and often suffer from cramps because of the loss of sodium chloride through perspiration. Meat, beef and poultry provide us with enough, vitamins, proteins, fats, calcium and iron.

In fish, the Almighty Allah has given us an abundance of food and a good source of proteins. These are prolific breeders in salt and fresh waters and are easily available to the common man. The oil obtained from the liver of Cod and Shark fishes is a rich source of vitamin A.

Locusts are considered as pre-slaughtered food and are to be consumed as such. They contain a large amount of moisture and are highly rich in fat and proteins. The salt and glucose content is high and therefore these insects provide energy to people travelling over long distances in the desert.
Allah has given us water so that we may grow vegetables, fruits and grains of all kind and eat them ('It is He Who sendeth down rain from the sky; with it we produce vegetables of all kinds. From some we produce green (crops) out of which we produce grain, heaped up (at harvest time); out of the date palm and its sheaths (come) clusters of dates hanging low and near; and (then there are) gardens of grapes and olives and pomegranates; each similar (in kind) yet (of a ) different (variety): when they begin to bear fruit, feast your eyes with the fruit and the ripeness there of. Behold in these things there are signs for people who believe' (Al-Anam :100).

Of the various fruits which have been mentioned in the Holy Quran, dates have found great favour. This may be because of their providing a stable diet for human beings. They are easily assimiable and are a tonic for the heart and the eyes. Certain varities contain a low content of sugar and are used as bread dates. These provide daily nourishment to people living in the desert regions of the world.

The slow growing tree of olive is highly resistant to periods of drought and the fruit contains a very high percentage of fat. Its oil is not only a good cooking medium but has important medicinal properties. It is a good hair tonic, stops premature greying and relieves muscular pains.

Fig is the popular name given to the plants belonging to the genus Ficus. It is a poor man's food. The fruits are not only
rich in vitamins A & B but also contain a high sugar content and can cure constipation. Indeed the dietary and energy-giving value of olive and fig becomes clear when we recite the first verse of Surah Al-Tin and find that the Almighty Allah has Himself testified their importance.

Islam has given great importance to the manner of slaughtering an animal and it seems that the entire philosophy aims at ensuring that blood vessels are fully exposed and the blood is completely drained off the body so that the toxins contained in the blood do not reach the body of the person eating such meat.

The skin of a slaughtered animal has its own advantage and produces hides and skins of much superior quality than is obtained from the skins of non-slaughtered animals. This is due to the fact that aluminum and chromium which are generally employed for tanning purposes penetrate the skin of the slaughtered animals more effectively than that of non-slaughtered ones. Again the slaughtered animals can be skinned more easily. All this is a distinct economic gain. This is why the Holy Prophet (may the peace and blessings of Allah be on him) told Hazrat Obaidullah bin Abdullah (may Allah be pleased with him) that we should derive benefit by skinning the dead animals.

The honey bee is an unique animal. It builds its combs on the mountains, on the trees and at the top of the buildings and collects nectar from different kinds of flowers to produce
honey for the healing of mankind. (Al-Nahl : 68-69). It is not only a complete food but also a medicine for patients suffering from stomach ailments. This is why the Holy Prophet (may the peace and blessings of Allah be on him) graciously remarked that the use of honey and recitation of al-Quran brings health and happiness.

Animals are useful to us in other ways also, for traction as a source of power and for transport. The dog has been serving us as a guard animal and we are permitted to hunt with it. The sheep yield wool while camels are an important source of power and transport in hot and dry deserts. Of course through domestication and selective breeding we can have animals of great utility. This is especially true of such distinguished animals as the horse whose agility, affectionate nature, extreme sensitiveness and long memory has made him a prestigious companion of man. 'And of these (hath he provided you with) horses, mules and asses that ye may ride them and to give you dignity and He hath created (many other) things of which ye have no knowledge,'" (Al-Nahl :8)

The sea is a treasure of wealth and how grateful should we be to the Almighty Allah who has subjected it to us and taught us to build ships that traverse along the unfathomed waters. Pearls obtained from animals belonging to the Phylum Mollusca and living in the sea are a real bounty of God. A 5 gram pearl may cost as much as three to four thousand rupees.
But all animals are not useful. There are destructive ones also. The seemingly inferior, tiny and repulsive insects give us typhus fever while the locusts ruin our crops. The crow, kite, scorpion, rabid dogs and rats are injurious economically so much so that the Holy Prophet (may the peace and blessings of Allah be on him) has permitted us to kill them even during the period of Haj. But while killing of the pest organisms is desirable, we should not harm them unnecessarily. Kindness to others, be they humans or animals is a fundamental principle of Islam and Allah loveth those who do good work. The Holy Prophet (may the peace and blessings of Allah be on him) has directed that the camels be given their due while travelling in a green pasture and we should find for them a place, free of vermins to rest at night.

That plants and their products are the ultimate source of food for mankind is a well established fact of ecology just as is the truth that the growth of plants and trees is dependent on rain, a phenomenon over which we have no control. Certainly it is a great blessing of Allah that he sends down rain from the sky for the germination of seeds and spores of all kinds of plants. The pomegranates which we grow to purge the system of every hatred or the corn that we eat as a stable food is as much a blessing of Allah as the prohibition of alcoholic beverages which intoxicate and injure our internal organs.

Besides their food value, plants are also useful as medicines. Thus bruised leaves of 'hinna' cure cuts and wounds
and an extract prepared from their flowers, leaves and tender
shoots is a favoured treatment for leprosy. The well known
Senna-i-Arabî is obtained from the leaves of *Cassia angustifolia*.
It contains glycosides which clean the bowels. Soft drinks
made from the leaves of this herbaceous plant cause jaundice,
whereas ointments made from its seeds are much recommended for
the treatment of skin diseases. In fact this is such a useful
plant that the Holy Prophet (may the peace and blessings of
Allah be on him) once remarked that if anything could save
mankind from death, it would have been 'Senna'.

The importance of personal hygiene and cleanliness of
ones' immediate environment are the fundamental teachings of
Islam. The Holy Prophet (may the peace and blessings of Allah
be on him) has told us that Allah loveth those who keep themselves
clean. He has declared that Islam means cleanliness. Thus
whenever a person desires to be initiated into Islam, he has
to first clean himself by taking a bath with water containing
a disinfectant.

Bathing means immersing the body in water and washing
away perspiration and particles of dust and dirt that may have
adhered to the skin. There is impurity at the root of each hair
and that is why the Holy Prophet (may the peace and blessings
of Allah be on him) told Hazrat Abu Hurrara (may Allah be pleased
with him) to wash his hairs and keep his skin free of pollution.

Washing of hands and face especially before taking meals
is an important safeguard against infectious agents. The law of 'Wudhu' enjoin that we should keep clean. Thus we recite "Oh you the believers when you get up for prayers, wash your face and your hands upto the elbow, rub your hands (with some water) and (wash) your feet upto the ankles - (al-Maida: 6).

Dental hygiene is an integral part of Islam for brushing of teeth with a softened stick 'miswak' not only aids in digestion, but also removes phlegm, keeps our mouth clean and makes our teeth bright and strong.

Dress is the index of a person which indicates his manners, displays his personality and protects him from the extremes of climate and external injuries. It should be loose-fitting so as to allow a stratum of air between the dress and the skin. Since air is a bad conductor of heat this would amount to wearing an additional garment for the maintenance of bodily heat. The Holy Prophet (may the peace and blessings of Allah be on him) knew this and therefore a loose fitting 'kurta' was his preferred dress.

Though, under normal conditions the wearing of garments made of silk is not permitted in Islam, such clothes may be worn by persons suffering from dermatitis because of the soothing feeling which they give. This could be the reason why Hazrat Abdur Rehman bin Arif and Hazrat Zubair (may Allah be pleased with them) were permitted to wear clothes made of silk.

Community hygiene is the quality of living of a community.
It is not only a social ethics but also a religious obligation to keep one's residence and neighbourhood clean. Once when the Holy Prophet (may the peace and blessing of Allah be on him) came to the mosque and found that people had spitten on the walls, he started to remove the dirty spots with a stick that was in his hand. And then he strongly condemned this unhygienic habit. At another occasion when a woman removed such contagious drops from a wall and sprinkled perfume, the Holy Prophet (may the peace and blessings of Allah be on him) was much pleased and appreciated the act of the lady.

There is no doubt that some of the most serious and contagious diseases of mankind are transmitted through the agency of insects and droplet infections or may be due to improper disposal of waste material. In this way the epidemics of cholera, plague, and influenza have appalled men throughout the ages and are yet regarded as the major epidemic diseases of the world.

Almost all epidemic diseases have a defined incubation period and one of the best ways to prevent their occurrence at different places is to enforce quarantines restricting the movement of persons from one place to another. It is really astonishing to learn from Hazrat Abdur Rehman bin Aafof that more than fourteen centuries back, the Holy Prophet (may the peace and blessings of Allah be on him) warned his Ummah not to go to a place where an epidemic was prevalent. They were also told not to leave such a place if they happened to be there at the time of the epidemic.
This indeed was the first quarantine that was enforced in the field of pest control. Its significance becomes apparent when we find that it was only in 1961 that an international sanitary regulation was promulgated by the World Health Organisation to keep in isolation persons suffering from plague for a period of six days.

Cholera is transmitted by the common housefly, Musca domestica nebulo. A study of the washing from the surfaces of the flies showed the presence of 2,500,000 to 29,500,000 bacteria per fly (Ostrelenk & Welech, 1942). Shope (1927) prepared a salt solution extract of flies and found therein a bacteriophage capable of destroying the pathogenic bacteria. The distribution of bacteria and the bacteriophage on the body of the fly is not definitely known and there is every possibility that both groups of microorganisms may not always be present at one and the same site. Thus we can we understand the philosophy of the words of the Holy Prophet (may the peace and blessings of Allah be on him) that fly carries disease organisms on one wing and their killers on the other. It is therefore, desirable to dip the entire fly in the liquid in which it happens to fall before throwing it away.

Sealing the wounds with cotton soaked in ehtniture provides protection from invasion by outside microorganisms and also helps in the healing of wounds. No doubt therefore, that Hazrat Fatima Radi Allah Anha burnt a piece of matting and sealed the wounds with it when her most exalted father, our Holy Prophet (may the peace and blessings of Allah be on him) got hurt. Indeed the science of environmental hygiene has always occupied a place of importance in Islam.