

DOKHMENASHINI IN THE LIGHT OF MODERN SCIENCE

A Talk by Ervad Dr. Minocher Dadabhoy Karkhanawala (BA, MSc, MS, PhD)

[Ervad Dr Karkhanavala was born in Mumbai. He passed his B Sc with chemistry and physics, completed his BA and then MSc from Wilson and Elphinstone Colleges. He did his MS in glass technology from New York State College of Ceramics and PhD in organic chemistry from Philadelphia University, USA. He was ordained as a Navar and Martab at Navsari. Ever since he was initiated as a priest at a young age, he wore the white priestly robes with white pugree daily throughout his life in India as well as abroad, at college/university and at his job at Bhabha Atomic Research Centre (BARC). He represented India at the Geneva Conference on “Peaceful Uses of Atomic Energy” and was Group Director, Health Physics Division and Chemical Group at BARC, Trombay when he passed away due to an untimely and tragic accident on 17th November, 1979. Dr Karkhanavala was a devoted scientist, a gifted teacher, an organiser, an administrator, a humanitarian thinker and a staunch follower of the Zoroastrian religion. He practiced what he preached. He believed that, like an escalator, science takes us there, that far but no further. It stops at the material world and that it is partial whereas religion is complete; it sees man as a whole mental, physical as well as spiritual. Religion takes over where science stops.]

My subject for discussion is the Zoroastrian method of disposal of the dead in the light of modern science. The theme prayer is from the Vendidad 5 and 6 wherein it is stated:

Datave gaethanam astvaitinam ashaum, kva naram iristanam tanum barama Ahura Mazda? Kva nidaathama? Aat mraot Ahuro Mazdao, barezishtvaecha paiti gatushva Spitama Zarathustra, yadhoit dim baidhishtem avazanam suno va kerefsh-kharo vayo va kerefsh-kharo. Aetadha he aete mazdayasna aetem kehrpem hvare-daresya kerenaot.

Therein we ask, “O Creator of this physical world, to where shall we remove and where shall we put the bodies of the dead?”

Then spake Ahura Mazda, “O Holiest of Holy Zarathustra, to the highest place Thou shall carry and there you shall put, where indeed the corpse-eating animals and the birds can see. There shall you carry your Mazdayasnans and shall cause to make that body see the sun or expose to the sun. In the last sentence is the basic principle of the so-called Khurshed Nagirashni (beholding by the sun), which forms the basis of our method of disposal.

The problem of disposal of the dead has plagued human society from the early beginning. Several methods have been devised by various civilizations at various times because it has presented a serious problem to the living. The first problem was that soon after a person dies, the body begins to putrefy and the early people wondered why smells and discharge emanated from that putrefying body. So they devised various ways to dispose of the dead body. Even today, there are four basic modes of disposal in common practice.

First, of course, is the method we Zoroastrians have used and are still using, mainly of exposure of the corpse to the sun and allowing the flesh to be eaten by birds and animals.

The second method deals with disposal of the corpse by burning, which is practised mainly by the Hindus and includes the modern practice of cremation.

The third practice is burial, one of the most widely practised methods of disposal.

The last method which is not practised very commonly, and only in extraordinary circumstances, is drowning the dead in the sea.

The widely prevalent belief about the Zoroastrian mode of disposal of the dead called 'dokhmenashini' is that we have considered fire, earth and water sacred and hence we should not defile and contaminate these elements. But herein is overlooked the most important aspect, namely that our religion has devised this method, not so much because it considers these elements sacred, but because it considers human life most sacred and has, therefore, devised all possible modes and conditions which lead to the betterment and welfare of the living.

Let us therefore examine the basic philosophy of the Zoroastrian religion which permeates this method. The foremost and most important aspect is the Zoroastrian outlook on life and religion. Accordingly, we have the picture that religion is not just a bundle of dogmas and doctrines to be followed implicitly, but it is a way of life in which we, human beings, accommodate ourselves in our environment and owe a duty to further Ahura Mazda's creation. We believe that the world was created for good enjoyment and should not be defiled in any way, causing harm to the living and to the world as a whole. This, man's duty to himself and to his environment is then taken as the first principle.

The second cardinal principle is the Zoroastrian religion's stress on purity. We have always been advised to conform to the laws of nature. We believe that even in the disposal of the dead with due respect and solemnity, nothing should arise which would be detrimental to the health of the survivors. Cleanliness has always been emphasized in our religion. We say, "Yazdao mashyai aipi zathem vahishta". Purity is best for men from birth, forms our basis. Even in the disposal of the dead we have emphasized the sanitary principles of segregation, prevention of contamination and infection.

In keeping with this view on cleanliness, the Zoroastrian ideals also hold that a human being is not just a composite matter of bones and flesh, but there is an entity of 9 parts 3 physical, 3 mental and 3 spiritual. We look on death as a birth in the spiritual life, and hence our ceremonies emphasize the separation as a transition severing the relation between the physical, the mental and the spiritual. To make that severance as smooth as possible, we have the said religious ceremonies.

The Zoroastrian method also carries with it simplicity and equality. The ideal of equality in the Zoroastrian method is to be seen in few other practices. In the dokhma the rich and the poor, the man of high rank and the man of low rank, is garbed in simple white and lies in the same place. There is no big tombstone to mark the wealth, the pomp and pageantry of the living. This is the basis for the Zoroastrians.

Now let us also examine the Zoroastrian philosophy in terms of modern science. When we look to science today, I would like to emphasize what we call the scientific approach.

The Parsis, particularly the educated ones, are clamouring that we take a scientific approach and look at things objectively. To these persons I make an appeal to please come with me on this journey and in this talk on purely objective thinking. If you are going to take an objective outlook, I will not allow you to have any subjective or emotional viewpoint in the method. We will consider the merits of our method of disposal only on the basis of science and its objectivity. The problem of disposal of the dead which are discussing is nothing but a problem of waste disposal. The Zoroastrian religion believes that once the person is dead the corpse is nothing but matter which is putrefying, a defiled matter which is likely to spread contamination and should be disposed of as quickly, as efficiently and with minimum fuss as is consistent with dignity. The same philosophy permeates modern public health engineering and radiochemical practice. Therefore just as in modern radiochemical practice we recognise three basic principles, the same three basic principles permeate our religious practice:

The modern concepts and principles are:

§ Recognition of contamination or possible contamination, because of which every case is to be treated as if it was contaminated and no risk should be taken;

§ Containment of contamination in the smallest area and its immediate isolation;

§ Eradication of the contamination with minimum delay, with maximum efficiency and speed, and minimum spread of the contamination.

These then are the principles which we follow even in our radiochemical practices in Atomic Energy and in Public Health Engineering today. The most important principle being the recognition of contamination or possible contamination. If we take this principle further, we come to the Zoroastrian concept that the body is contaminated and it is putrefying. This is clearly stated in the Vendidad. I will speak more about it later.

But while we review our method, I would like to review the principles of other methods of disposal of the dead in the light of these three fundamentals.

The burial which is very widely practised, leaves the ground useless for nearly 50 years. Burial grounds have been known as the centres of epidemics. There are innumerable examples. One I would refer to you is cited in The Handbook of Public Health by Dr Parks, where he has proved

in an earlier case, that the grave diggers in Paris were overcome by nausea when they opened up a grave. This sealed-in contamination comes to the living and is harmful. Even in the Houses of Parliament in London, there have been cases of people in the borough suffering from various throat diseases near where the cemeteries were. These, therefore, in modern medical sciences, are recognised as centres of epidemics.

There are other numerous examples where the burial grounds are unfit for use and for human habitation. It is for this reason that Dr Parks in his *Hygiene and Public Health*, 7th Edn, has written that burial causes pollution of both soil and air, it should be discontinued within the borders or in the neighbourhood of towns and thickly populated districts. Burial sites at a distance can be provided at great cost and at much inconvenience to the tax payers. On page 732 of his book, he goes on to say that the other methods of disposal like the exposure of the dead body in the sun and open air and the fleshy parts being eaten by vultures, a method followed by the Parsis in India, is very commendable. This is one of the opinions on burial.

There are many other knowledgeable sources we can quote, but we will next pass on to the burial in water. Water is used for drinking and particularly in places situated along rivers this practice of disposal of not just bodies but also other human wastes, rubbish and garbage poses a very serious health hazard to the communities who live down the river. I will give only one instance I ran into personally during my stay in Oakridge near the Clint River.

The population of Clinton and the town of Clinton, just up the river, discharge all their waste, human waste and excreta into the river. Extreme precautions are taken by the town of Oakridge to purify the water, but every time we raised a glass of water to take a sip, we felt a shudder and a certain nausea that what we were drinking had somebody's excretion in the river. This problem of pollution of the river waters had, therefore, always engaged the attention of our forefathers and since the practice does not conform to the three principles outlined above, it was also discarded.

The next important method and one which to some extent is finding favour with some modern day Parsis is burial by fire chiefly cremation. When a body is burnt, the burning proteins give out a very foul smell. Anybody who has cooked a scrambled egg has experienced the nauseating smell if a little of the egg white falls on the hot plate or in the fire. A similar smell emanates when the human body, which is composed of kilos of protein and other amino acids, burns. You will ask: "What has that got to do with the spread of contamination?"

The next question is how do we sense smell? Unless the molecules of that particular compound come to and stimulate our olfactory organs of the nose, we do not feel the sense of smell. I will give you an example. While passing through Worli area in Mumbai, we get a foul smell because the gaseous molecules of hydrogen sulphide and carbon disulphide enter our nostrils, irritate its organs and we get the sense of smell. But by the time we get the sense of smell, the molecules have already entered our body and have started to do the damage. So even in the case of disposal by fire, these molecules burn and spread.

People will argue that cremation is done in confined chambers and is not, therefore, such a spread as is the case with open fire. But one factor to consider is that the body does not burn completely even at a high temperature. To sustain combustion one requires a continuous flow of air and the burnt air, including all these burnt proteins and other contamination, is thus carried up the chimney and spreads into the atmosphere. There is always a certain smell around us and, even if you put filters, no filter is a 100 % filtering medium for gaseous molecules. It prevents the solids but does not prevent the gaseous molecules from escaping and contaminating the atmosphere.

The principles governing cremation therefore do not conform to the above three principles because it also leads to a spread of contamination. By contrast our own method of disposal is, first of all, restricted within the confines of the Tower, and all the matter which is likely to putrefy, and therefore be the cause of spread, is devoured up by the vultures very quickly. Some persons' objections to being eaten up by the vultures arise more from sentimental than from any other reason. To those who prefer burial, I would ask: "which is better? To be eaten up by thousands and thousands of worms over a period of years, or to be eaten up by vultures within less than an hour?" the latter method I would personally prefer and is being preferred by many others because not only does it make a very quick disposal, but also a very efficient disposal without further spread of contamination.

We will now review the Zoroastrian principles and we will find that our methods and practices are amenable to the three principles. One can always apply these three principles of recognition of contamination, containment of contamination and eradication of contamination to our Zoroastrian methods so that when I explain our ceremonies and our methods, you would see how these three principles are carried to their logical conclusions.

When a person dies, the Zoroastrian religion has stated in the Vendidad 7 paras 1-5 that the corpse is putrefying and therefore we are enjoined to have minimum contact. The Vendidad indicates periods (gehs) corresponding to the periods for the setting in of the rigor mortis. It also differentiates between a person dying a natural death and one who dies by accident. The former dies after prolonged illness or at least after some illness during which time his body has already weakened because of the attack by various viruses, bacteria and germs. Hence putrefaction in his body starts sooner than in a person who has been quite hale and hearty and dies by accident. That body being free from germs and diseases, decays or starts decaying slowly.

Hence we find in the Vendidad that persons who have died from natural causes are given half the period of a geh and in the case of accidental death, a full period of a geh. People will question: "What should be done if a person dies one minute before a geh changes? It implies only that the day is divided into five parts, and therefore, each period of the geh is of an approximate duration of about five hours. And this is the period (of about five hours) which modern science also accepts as the period for the rigor mortis to set in. once the rigor mortis sets in, the body begins to putrefy. So we are allowed contact with the body only within this period, that is, before the rigor mortis sets in.

In the Zoroastrian religion, again the Vendidad 5 para 6, we are told that the corpse, after being washed and given the final bath, should always be dressed in old but clean clothes, unnecessary wastage of cloth is forbidden. It is for this reason that we do not garb our beloved dead in all the relics and fancy dresses. We believe that such unnecessary wastage of cloth is redundant, not only redundant, it is unsanitary. After the performance of this ritual, the kusti prayer is said by somebody, either the heir or the son or the daughter of the deceased. It starts with the recitation of the kusti binding from Hormuzd Khoday and the Jas me Avanghe Mazda prayers are recited. After that the body is handed over to the khandhias.

In Mumbai we have a system of khandhias and nasesalars (corpse bearers) but in other villages, where we do not get the khandhias and nasesalars, anybody is enjoined to undertake the task. But in Mumbai, because we have a large population of Zoroastrians, there are many deaths and we cannot follow all the practices, we have set apart this group of khandhias and nasesalars to perform this work.

The body is given in charge of the two khandhias who have already performed the kusti and the Sarosh Baj till ashahe, the part of nemascha ya armaitish izha-cha is said afterwards, that being the ending of the baj which they have taken. Holding the paivand (a cord) between them, they put on the shroud, leaving the face uncovered and lay the body on a stone slab. Then, while reciting the yatha ahu vairyo, the nasesalars draw the kash or boundary by circling the corpse three times with an iron nail. We call it 'kash khenchvu', drawing the kash. The nail is kept near the corpse. This is done to indicate that the ground within the demarcated space is out of bounds for the mourners, and to prevent infection.

In the olden days, according to the Vendidad, the ground where the body was laid, was to be dug up a few inches and covered with a layer of sand and clay. This injunction we find in Vendidad 5 and Vendidad 8 wherein it is also mentioned that in every house an area should be selected which is away from normal activity and the passage of human beings and animals and in an isolated area. The ground should be dug up a few inches and covered with a layer of sand and clay. Even in this old concept there is a lot of science behind it because the sand and clay act as excellent filters for the putrefying matter and pus which might emanate from the corpse.

Even today we use clay in radiochemical practices. Clays of a particular type, the monte morilonite and the elliptical types have the property of swelling when any liquid comes into their contact. They absorb the liquid by their swelling and, therefore, prevent it from penetrating further. And the sand acts as an excellent filter.

Today we just have the same ground tiled with Bharat Tiles and there is just the black outline to demarcate the area and we put the body on marble slabs. But in many old houses, particularly in Gujarat, they had, not in every home, but in every mohalla, the so-called nasakhana wherein the body would be taken and in there they had an isolated area. These nasakhanas of the olden days, to some extent, correspond to the bangli we have today. The dead body is taken there, all the rites are performed at that place and the body is disposed of from that point onwards. The

emphasis here is again on isolation of this place and isolating it completely in a very sanitary manner.

After the body is placed on the slabs or demarcated place, we have the custom of sagdid, that is, the body is shown to a dog. Sag means a dog and did is darshan or being seen by a dog. There are various implications and interpretations as to why a dog is brought to cast his eyes upon the corpse. Dr Sir Jivanji Mody, in his excellent book on the "Religious Ceremonies and Customs of the Parsees" has given various explanations, one being that the type of dog stated in the Vendidad, a chatru-chasm dog, a white dog with two brown marks over the eyes, should see the corpse. It is believed that this particular type of dog had the ability to detect whether life was really extinct.

Dr Haung, a famous Orientalist, has attributed the sagdid to some magnetic influence in the eyes of the dog. There are others who have connected the sagdid with the symbolism of the two dogs in the sky, the Canis Major and Canis Minor in the Orion. The Orion and the Milky Way have been identified by some with the Chinvat Bridge in our religion (Bridge of separation, where the soul receives its reward or punishment).

Then Sir Jivanji Modi has compared and given his own interpretation as a dog being a symbol of the destruction of immoral passions. He recalls Dante's line in The Divine Comedy wherein human passions are attributed to the doglike character and to the dogs. That when a person is dead, the passions die with him, that doggish character so to speak is taken away and that is why it is attributed.

Personally I believe that the first explanation, the particular ability of the dog to detect whether life is extinct or not seems more reasonable. We have known instances of the ability of dogs to smell and to identify smells at great distances. There are police dogs to hunt up criminals. All that they have for clues is a little scent. The scent power of dogs is fantastic. They can find criminals. They can find lost human beings. You will notice that even in our homes, a pet dog begins to wriggle and to bark long before we can even hear footsteps because he has sensed his master or somebody coming. That is because of his uncanny ability for certain scents. We are not able to understand how the dog makes it so.

There have been various theories attributed to the dogs and their hearing. Just as the human ear hears on certain frequency, between a very narrow band in the decibel sounds, but dogs are able to hear in the so-called ultrasonics, and they have in the USA, made out even toy whistles which only dogs can hear because of their very high pitch. The human beings cannot hear sounds which the dogs can hear. They can scent. Maybe it is because of this ability that our ancestors wanted the dog as a help because sometimes even doctors err if the pulse becomes so weak as to be imperceptible. So whether a person is really dead or not was probably the reason why we have this exposure to the dog, and that too, not once but so often.

The Sagdid is done just about the time the body is placed on the stone slab and afterwards twice while putting on the shroud and then in every geh while the body lies before being taken to the Tower, during the recitation of geh-sarna (once in the Ha 31 at para 4, between paras 4 and 5, then after the geh-sarna) and finally, the last Sagdid is performed just prior to being deposited in the Tower. So it looks to me that we have tried to make absolutely sure about this factor.

After the first Sagdid, the fire is brought into the room and is kept burning with fragrant sandalwood or other fragrance. This we find in the Vendidad 8 paras 79 80. Herein lies an important principle, the principle of fumigation. Because we have recognised that since the body is putrefying, it may emanate pus and other putrefying matter. We fumigate the place with fragrant burning wood. This age old principle of fumigation is extensively used today even in houses with various insecticides to kill germs, mosquitoes and other pests. After the fire has been brought and kept burning to fumigate the place, a priest sits some distance from the corpse and says the prayers till geh-sarna. This again we find in the Vendidad 7 paras 6-7, which states that the body must be confined to the Tower only during the daytime, that is, while the sun is still shining. Never during the night. Because this is the basic principle as I outlined to you earlier of Khurshed Nagirashni that the body must be exposed to the sun and hence it is only during daytime that the body can be taken to the Towers for consignment.

How is the body carried to the Towers? It is carried in the gehan (bier) which is made of iron. Our religious literature mentions various other metals gold, silver, brass, copper yet for the disposal of the corpse it is stipulated that the gehan should be of iron. Wood or any other porous material is absolutely prohibited.

Now why is iron selected for the gehan and for drawing the kasha? Iron is a magnetic material and it is a magnetisable material. We know now that it leads to a certain amount of containment of the field. Everyone would have experienced the reception of a transistor radio falling considerably inside a building of reinforced concrete structures. That is because iron girders and iron bars are embedded in the concrete of the building to reinforce it. The iron prevents the electromagnetic radiation of the radio waves from coming in and being picked up. That is why we have the aerial outdoors, because outdoors there is less hindrance.

We also know that magnetic fields have a pronounced effect on various phenomena. You will be amazed that in our fusion research, wherein we attain temperatures of millions of degrees centigrade, the only vessel which can contain that heat is a magnetic force field. No other matter is able to stand 3 million to 30 million degrees centigrade. The only thing we can use, is a magnetic line of force which contains this heat.

Every human being, as we know now, is composed of electrons and magnets. We are a living moving magnet: you might say, a mobile electrical field, because each of us emanates radiation and each one has a characteristic field. There is a simple way to prove it. If you have a radio with an internal aerial, tune in your radio to any medium wave station. Turn down the volume to a bare minimum. Then touch the aerial. You will notice that the sound becomes louder and is very audible even at the low volume. That is because of the electrical effect of your body. Now we

also know that a magnetic field is associated with every moving electrical charge. Even in this room, all the wires which carry electricity it is an AC electricity, an alternating current there is a magnetic field associated with it. We still don't know why the two are connected but we know that they are. Hence we know that for containment of these magnetic lines of force, we must have iron.

This principle of containment of these forces and lines of force by iron plays a part even in our funeral ceremonies. After the sachkar ceremonies are over, and the time has come for the geh-sarna and the final journey, there again we have the evidence in the Vendidad.

In Vendidad 10 and 9, it is asked, "How are we to stand against druj, the evil influence, the nasa which runs from the dead to the living?" I would emphasise this para because it states clearly that the evil influence runs from the dead to the living. Today we know definitely that it is putrefaction and germs and viruses emanating from the putrefying body which spread in the environment and infect the living. The answer given is, "Recite those words in the Gathas which are spoken thrice". These are words to be found in the Ahunavaiti Gatha. This, therefore, gives us the basis of our geh-sarna ceremony also.

I do not have the time to explain these ceremonies because I am going to deal and I have been dealing mainly, not with the spiritual but the physical aspect of how we contaminate and how our religion has emphasized on the containment of this contamination with the quickest and most efficient method of disposal of the dead.

After the geh-sarna ceremony is over, the body is consigned to the Tower where it is placed naked and is quickly finished off by the vultures. Naked we come into this world and naked we go out of it. Here I am reminded of one more point. About 50 years ago, when there was a great conflict between the reformists and the orthodox in our community, when the former wanted to close down the Towers of Silence. They put forth an argument that the birds carry the bones and other matter out of the Towers and into the environment thus spreading contamination. This point was of course refuted by the Britishers then living near the Towers. They said that never in their compounds nearby had they ever seen a vulture bringing any part of the dead body.

This is understandable because anybody who knows the habits of these birds will know that they never carry anything out. Once the vultures and eagles attack their prey, they never leave it till they have finished everything eatable. As a matter of fact this failing is exploited in the United States to capture these birds alive. In the prairies men purposefully leave a dead animal like an ox or a cow in the open as a bait for the eagles and vultures. Once the birds start eating they become so heavily laden they are unable to move fast. So after they are finished, riders come on horseback, knock them unconscious with flings and capture them alive. Hence nobody who knows the habits of these birds will ever believe that they take pieces of human flesh or parts of the human body to their nest. They always finish the corpse at the place where they find it and hence, there is no contamination from the Towers to any place outside.

While we are talking of the dokhmas, the Towers of Silence as they are called, it would be proper to give a brief description and what goes on in their construction. The Tower is roughly about 300 feet (90 metres) in outside diameter. It has a circular well inside of about 150 feet (45 metres) diameter, which is divided into three rows or pavis or shallow open receptacles or consecrated paths which are all equal in number. Geometrically, if you take a circle and draw a smaller circle and keep the number of sections the same, automatically each section as it comes towards the centre will become smaller and smaller. So the outermost circumferential ring is for the corpses of males, the second ring for the female corpses and the smallest ring for the corpses of children. The amount of space allocated to each corpse is mentioned in the Vendidad from the head of a man to his toe and two arms width. The ground should not be wasted unnecessarily.

Before commencing to build the dokhma, the ground is first consecrated by performing the baj ceremony in honour of Sraosha, the guardian angel guiding the souls of the deceased, then Ahura Mazda, then Spenta Armaity, the guardian of the earth, then Ardafravash, all departed souls and then the Hapta Ameshashpands, the seven archangels. The recitation of the five baj is followed by the ground breaking ceremony. A portion of the ground is dug by the priest who has performed the baj with the recitation of 21 Yatha ahu vairyo. The workmen then dig the ground deeper.

After the ground has been dug properly, comes the most important ceremony, the tana or the foundation ceremony. This is important because of what goes into laying the foundation. A total of 301 iron nails of different sizes and widths go into the making of a dokhma.

The first nail put in the centre is an iron nail of one maund (37.3 kilos) without any hole. Then there are four side nails driven at a fixed distance from the centre in south-east, south-west, north-east and north-west directions. These four side nails weigh half a mound (18.7 kilos) each and have three holes through them. Next are 36 nails which together weigh one mound. Sixteen of these nails are driven along the circumference of the outer wall. These 16 nails with the four already driven make up a total of 20, while 20 nails are driven in the inner circle. After that for the four channels from the inner well, or bhandhar as it is called, 256 nails altogether weighing one maund are struck in eight rows. Of these 256 nails, 32 are struck in a row on the two sides of each channel in the inner well. Even in this number of 256, I am specifically reminded of the 256 channels we use in our digital computers and in our scalars. If you notice it is on a scale of 2 – 2, 4, 8, 16, 32, 64, 128, 256. It is not just any odd number but is increasing in geometric progression of 2, which makes up these 256. Finally 4 nails are driven each just outside the two rows in the centre of these channels.

The five sets of nails make a total of 301 nails.

After the nailing, with the recitation of Yatha ahu vairyo the priests, starting with the big centre nail, pass the tana or the thread through these nails. Even this thread is not an ordinary thread. It consists of 101 smaller threads which have been entwined into one. Starting from the centre ones, they keep passing the thread through the four nails in the south-east position and over the first 20 and the 16 nails and finally come back to the centre. The idea often expressed is in unity we start off with Ahura Mazda and we end up with the same Ahura Mazda. Then in this centre

hole which is left behind purposely, wherein after the flesh is eaten away by the birds the bones are thrown into the bhandhar. Underneath this bhandhar are four side lanes or channels which lead to the four underground wells. Rainwater and other water which falls (over the corpse) washes out and eventually it will come out into the soil adjoining the dokhma. Since our basic principle is that there shall not be any spread of contamination, even this rain water does not mingle with the soil outside the dokhma, without being purified. It is for this purpose that the four inside lanes or underground drains are lined with active charcoal and sand. These layers of charcoal and sand prevent all possible contamination. We know very well today that the same method is used for filtering water from all pollution. Even the municipality uses this same method for purifying water. Thus we see that by this method, pollution is completely confined. I have tried to bring this out in some of my speeches.

Now you will ask me why I have relied so heavily on the Vendidad. How authentic is the Vendidad and how much reliance should be given to it? There are people who, at the slightest provocation, have been hitting out at the Vendidad as a book which is made up and should not be respected. But if one thinks over it coolly, the first thing which one has to agree with is what Prof Westergaad said, that the priests who accumulated and assembled in the Sassanian times to gather together all the vestiges of the Avesta literature, have done a perfectly honest job, because, as Westergaad said, these priests could not have written the Vendidad any more than the modern Englishman could have written it in the times of Alfred the Great! There has been such a time interval. Not only that. Let us see what Vendidad is.

The Vendidad as the name implies, is the Vi-daevoata, the anti-demonic laws. And these laws were made for the benefit of humans. It is a code of behaviour because, as I have mentioned, our religion holds the view that religion is a way of life and necessitates with it a code of behaviour. I would ask: "Is it not a matter of pride for every Parsi that in the Vendidad we find passages which were the first to recognise that the body decomposes after death, it putrefies?"

We find passages referring to pus and how we should purify ourselves if we have been contaminated by pus. There is an injunction in the Vendidad that if, perchance, a person touches a dead body after the rigor mortis has set in, he must take the bareshnum (the purification ceremony) not just an ordinary bath but the bareshnum. The reason simply is that when a person touches a dead body and exposes himself to the viruses and to infection, he must be isolated from society before he returns to normal duties to prevent the spread of further contamination. What do we do today? People travelling from one country to another are put in quarantine if they do not have vaccination and international health papers. What is the period of quarantine? It is about ten days. Why is the period of nine days given in the bareshnum? That is the incubating period of any of the viruses and germs. If a man has caught a disease he will show symptoms of that disease immediately after this period. If he has not caught a disease, he can be released to society and conduct his normal activities. We find therefore nothing obscene or untoward in the Vendidad.

I would here quote the words of Rev Dr Mills who had said very wisely about some of the later passages in the Zend Avesta, and here he refers particularly to the Vendidad, which we have

discussed in detail about the disposal of the dead. He writes, “these passages regarding putrefaction, which might seem to some of us most grotesque, were hardly superfluities. For they show the sanitation which it would be better for us to follow rather than condemn. They anticipated much modern theory on the subject, and led the way in the most practical of all sciences disinfection.” I would ask: “Is this method not a matter of legitimate pride for the Parsis? That our religion, 8000 years ago, gave us complete doctrines of how we should behave in times when there is contamination?” Our scriptures were the first to recognise that there is something called contagious diseases, that disease can spread from one person to another even without physical contact. And for these diseases, the only way was to isolate.

Why do we have isolation wards and isolation hospitals? Simply because the contamination must be isolated. Our religion foreshadowed all modern theory because it recognised that the dead body is a contaminated body. We have never looked upon it with any other kind of sentiment. We have recognised that, with all due respect, the putrefying matter must be disposed of at the earliest, in the most sanitary way and in a manner which will not spread contamination and harm the living. Our religion has always emphasized that no harm should come to the living and to the good creations of Ahura Mazda and it is for this purpose that these sanitary codes were evolved. In conclusion, therefore, I would request that we judge these ceremonies dispassionately, applying the three principles. We find that neither burial nor cremation nor burning nor drowning the dead in water meet these principles. It is known that in burial grounds the content of carbon dioxide is 0.8 to 0.9 % – much higher than normally tolerated. The burial sites have also been recognised by some or at least have been attributed as causes for the spread of poliomyelitis in Europe and in the United States. Even in the crematorium the ashes have to be taken out, also the deposits which go up in the chimney have to come down. We, at Atomic Energy, have had to put up a stack, 400 feet high, in order that the contamination would be very much minimized. Nowhere is the stack so high.

Many people say or argue that the cremation costs are nominal. But let us remember that it is just for the use of the crematorium. The use of the dokhma for the disposal is equally cheap, if not cheaper. The cost, as it is called, is often for the ceremonies: we have these ceremonies because our religion has recognised, as we have said earlier, that the human personality is of nine parts and we are not merely throwing away a rotting, decomposing carcass but we have to provide for its smooth transition from the physical to the spiritual world. It is therefore, because of our ceremonies that we never have ghosts or other spirits near the dokhma. There have been cases, authenticated cases, of ghosts at burning ghats, ghosts at other places of burial but never is there any known instance of a ghost near the dokhma. That is because the transition to the spiritual world has been made perfect.

I would, therefore, say that we should not judge merely because the West has not comprehended certain things. Everything from the West is not perfect. I would strongly appeal to the Parsis, to be proud that our religion is the only one to recognise, and recognise 8000 years ago, that a dead body is decomposing matter, a source of possible contagious diseases. We should be proud, not ashamed. This is why we are asked to wash our hands and say the kusti prayers immediately after visiting the bungli and take a bath after the funeral ceremony. Our method, by those

scientists who have studied it, is found to be scientifically the best, the most efficient, the most hygienic, the most perfect.

Atha jamyat yatha afrinami

May it be so as I please

Courtesy : Pervin Mistry