

RABBI AKIVA AND QUANTUM MECHANICS

There were four who entered the Pardes: ben Azai and ben Zoma, Acher and Rabbi Akiva.

One of them took a glimpse and died,

Another took a glimpse and went insane,

One took a glimpse and cut down the saplings

Another ascended in peace and descended in peace.

Ben Azai took a glimpse and died. Of him the verse states, "the death of His righteous ones is dear to Him."

Ben Zoma took a glimpse and went insane. Of him the verse states, "if you find honey, eat sufficient [lest you become satiated from it and vomit it out]."

Elisha took a glimpse and cut down the saplings. Of him the verse states, "Do not allow your mouth to cause your flesh to sin [and do not tell the angel that it was unintentional]."

Rabbi Akiva ascended in peace and descended in peace. Of him the verse states, "Draw me towards You, and let us run after You."

The World of Paradise

There are various places in rabbinical literature where this story is quoted, although there are some differences in each version. The most important source is in the Talmud in Tractate Chagigah which deals with the festival sacrifice that is brought to the Temple in the holy city of Jerusalem on each of the three "foot festivals". Although in general, the entire Talmud deals exclusively with pragmatic legal issues and not with the mysteries of the Torah, the exception to that rule is the second chapter in this tractate; the one and only chapter in the entire Talmud that is devoted to discussing the secrets of the Torah. This

tractate is actually the source in the Talmud for Kabbalah.

The second chapter of Tractate Chagigah discusses what one is allowed to contemplate and meditate upon; what is beyond the capability of the human mind and soul to contemplate; who is worthy of receiving the mysteries of the Torah; who is not worthy and how one becomes worthy, as well as other matters that deal with the mysteries of the Torah. Some of these phenomena are even described to a certain extent.

The part of this chapter that is of interest to us is the story quoted above, of the four sages who entered the Pardes. The word Pardes [פרדס] literally means, "an orchard" and the only place in the Bible in which it appears is once in the Song of Songs, referring to a pomegranate orchard.¹

All of the mysteries of the Torah revolve around unification of the Divine Male element or dimension of reality and the Divine Female element, the Groom and the Bride. That Divine union is the essence of Kabbalah. The Song of Songs, which is the holiest of the holiest of the scriptures, describes the union of the Divine groom and the Divine Bride, who are God and the Jewish nation. Amongst other important idioms that appear in the text is the "pardes". Meditating on the secrets of the Torah is referred to as walking through an orchard in general and a pomegranate orchard in particular.²

1 One of the greatest Kabbalistic texts before the teachings of the Arizal is actually entitled, "Pardes Rimoni" ["the Pomegranate Orchard"]. It was written by the greatest of mekubalim, Rabbi Moshe Cordovero (the "Ramak") who lived more than four centuries ago. He summarized the kabbalistic writings of the kabbalists who preceded him. According to tradition, Rabbi Isaac Luria (the Arizal), arrived in Tzfat on the very same day of the Ramak's funeral and began to reveal a totally new and deeper dimension of the kabbalah, based on the deeper understanding of the Zohar that his teachings allowed.

2 Pardes – pshat remez drush, sod – see "A Sense of the Supernatural" (index reference)

It is not difficult to see the resemblance between the Hebrew word *pardes* and the word, "paradise." Indeed, Rabbi Abraham Abulafia, one of the great early medieval kabbalists, from around the same time as the Zohar was revealed, pointed out this fact.

Rashi explains in our story from the Talmud that the four who entered the *pardes*, actually entered paradise – the Garden of Eden. He also explains there that the way that they achieved this was by articulating a Kabbalistic Divine Name of God. By doing so, they ascended to a higher firmament, to the *rakia*, and that ascent to the *rakia* is the experience of entering paradise, the *pardes*.

The two major commentaries on the Talmud are Rashi and his grandsons, Baalei Hatosfot. In general, when the gemara is studied, the text is studied together with Rashi's commentary and then the commentary of the Tosfot is consulted, if one is present, which usually differs from that of Rashi. In this case, Rashi takes the words of the Talmud literally and explains that they entered another world in body and soul, while the Tosfot explain that the story should not be taken literally and that the four sages did not leave the face of the earth and arrive at a non-parallel universe. In order to stabilize this opinion, the Tosfot quote from the Baba Baruch, an earlier source, that the sages ascended to another plane of consciousness by elevating their minds through meditation. According to this understanding, the experiences that they experienced were in the heart and although they did not physically "take off" to another realm, in their entirely spiritual endeavor they did see what was occurring in the realm of paradise, however this was an experience that they experienced in the inner eye of the heart.

There are two different readings to this story, of the four who entered the *pardes*. According to one version, Rabbi Akiva "ascended in peace and descended in peace," but

according to most of the times that this story is mentioned in rabbinical literature it says that "he entered in peace and came out in peace." The fact that there are two versions seems to correspond slightly to the two interpretations. Rashi's interpretation corresponds to the vertical experience of ascent and descent, whereas the more common reading, refers to a more lateral experience, of entering and coming out, which corresponds to Tosfot, who explain that the ascent is not to be taken literally and is merely in the eye of the heart and not a physical ascent.

Whether these four sages really did leave this world in soul and body and enter a different world altogether, or whether they experienced a different realm of consciousness while physically remaining here in this world, we will locate that world with reference to the Kabbalistic Worlds.

In general, there are four Kabbalistic Worlds. The world that we generally experience is the physical dimension of the World of Action. In addition to that physical dimension there is the spiritual dimension of the World of Action and above that there is another world altogether, the World of Formation. The third world is the World of Creation and above that is the World of Emanation, which is a world of pure and total Divine Essence where there is no consciousness other than the consciousness that God is One and God is All.

In the lower worlds of Action and Formation, there is consciousness of another to a certain extent. Everything in this world seems to be static and in order to get something to move requires physical force, which is an experience of self that is separate from the Creator. Finding the Creator in this world down here is very difficult because we don't see the Creator in His creation, we just see objects and entities that appear to act

independently of God. That is the World of Action in which there exists a consciousness of the self, vis-a-vis God.

The world above this is the World of Formation, which is a world of water, in which everything flows from one image to another image and there is a definitely a sense that not everything is a given. In this World there is more room for a direct experience with the Creator, however, even though reality in the World of Formation is not static, there is still a sense that on the emotional level, there is an evolution of matter and that everything develops from that which precedes it.

The experience of the World of Creation is of being freshly created something from nothing at every instant. In the World of Creation there is still a vague experience of the self as it experiences its recreation at every moment, however, this is very close to a totally Divine state of egoless consciousness. In its newly created state, the self still experiences the nothingness from which it emanated, nonetheless, there is still an experience of self. This experience of self can be compared to a crystal or a prism, which although it is translucent and enables light to pass through it, nonetheless possesses physical form.

These three Worlds correspond to *ma'aseh bereishit*, the "Workings of Creation." To the extent that a person has an independent, separate, state of self-consciousness, he does not cling to the Creator. In order to come closer to the Creator and to cling to Him we need to enter the *pardes* by studying the mysteries of the Torah.

In the World of Emanation, there is no sense of self-consciousness whatsoever. In Kabbalah this is referred to as *ma'aseh merkavah*, the Workings of the Chariot. In this World, all self-consciousness is totally nullified to God's will and one becomes a chariot

through which God manifests Himself in the world. That level is the level of the patriarchs, Avraham, Yitzchak and Ya'akov who are referred to as the Chariot of God because they had no independent self-consciousness and were purely a vehicle for God to manifest Himself as He wills in reality.

Having mapped out the various Kabbalistic Worlds, we can now say that according to the Arizal, the World that these four sages entered was the World of Formation. This means that they ascended one spiritual World above the world in which we exist.

The Peacefulness of Marriage

All of these four sages were contemporaries. Rabbi Akiva is the one who is renowned for entering in peace and exiting in peace, from which we can understand that the other three neither entered in peace nor did they come out in peace. Two of the sages are never referred to throughout Talmudic literature by their proper names but as the son of their father, although the proper name of both of them is Shimon. They are ben Azai and ben Zoma. One reason why they are not referred to by their proper names and are not given the title Rabbi even though they were very great sages, is because they were both so connected and devoted from youth to their study of Torah that they did not marry, thus they never performed the first and foremost commandment of the Torah, which is to be fruitful and multiply. Even though by Torah law a person who is so devoted to Torah that he studies it day and night is exempt from marriage, nonetheless, it is still not the best way and it will prevent him at a certain stage from achieving his Torah aspirations. If you don't have time to get married and create your own family, at a certain point in your Torah study itself, it will hinder you from reaching the ultimate purpose, which is to reach the mysteries of the Torah.

So we have seen that because these two sages were not married they did not enter in peace and leave in peace. This immediately brings to mind another story from the Torah itself, in which the first two of Aaron's sons, Nadav and Avihu, who were also not married, were burnt up by fire on the first day of the inauguration of the Tabernacle. Nadav and Avihu brought a sacrifice of incense – the most beloved of all sacrifices – that they had not been commanded to bring. The Hebrew word for incense, *ketoret*, is phonetically related to *hitkashrut*, meaning connection or clinging to God. Indeed, Chassidic teachings explain that Nadav and Avihu brought this incense on their own for the sake of serving God and clinging to Him. However, since God had not commanded them to bring this offering, the fire entered their nostrils, and burnt their souls, while their bodies remained intact and perfect. This tragedy occurred on the day of the inauguration of the tabernacle, which was the most joyful day since the creation of the universe.

We are taught in Chassidut that these two sons had a tremendous desire to ascend and cling to God but they erred in their judgment. There are many different opinions that explain the exact content of the mistake in their approach, however we will suffice here by explaining that as one approaches the depths of the secrets of the Torah, even one small mistake can be disastrous or even fatal, as it was in their case. One explanation for this is that like the two sages under discussion, they were so devoted to their spiritual service that they never married. So we see a very important common denominator between the two sons of Aaron in the Torah itself, and the two sages, of whom it says that because they were not married, they were not able to achieve the peaceful elevation to heaven, to be able to ascend peacefully and return peacefully.

The key word is peace. The reason why Rabbi Akiva was successful was because he

was in a state of peace, meaning that all the others were not in a state of peace. They neither entered in peace nor left in peace. The opposite of peacefulness is a state of agitation. Delving into the depths of the mysteries of the Torah is not a simple thing; it is liable to be a super-tense experience. However, we are taught that the way to achieve the secrets of the Torah is only through peace. If a person is agitated it will backfire on him in some way or another because peace is lacking. Peace comes from being married as we can see from the commonly used idiom, *shlom bayit*, meaning "a peaceful home." Obviously, there is a need for a certain amount of tension in order to live. Only a dead person has no tension whatsoever; he is super-relaxed. These are two opposite extremes, to be 100% relaxed is to be dead, but to be over-tense, like a spring that is over-tense, can result in snapping, as we see that sometimes the most gifted children crack under the intense pressure of their studies. The perfect balance is peace and it can only be achieved through a peaceful marriage. An unmarried man is unconsciously over-agitated inside and that will prevent him from entering peacefully and exiting peacefully from paradise. Just as the Song of Songs, in which are hidden all of the mysteries of the Torah, is about a bride and a groom, marriage, so too all of the mysteries of the Torah are related to marriage. Obviously, it is not possible for a person who is not married to successfully and peacefully delve into the mysteries of the Torah. This is why, the sefardic Kabbalists to this day, do not allow even a very gifted student to study Kabbalah if he is a bachelor.

In contrast to pure Kabbalah, Chassidut was developed in a language that allows even children to study the mysteries of the Torah and therefore holds no danger. But in order to study the traditional, classical texts of Kabbalah one of the requirements is that you have to be married.

The Angel to Blame for Elisha's Heresy

Ben Azai, one of the unmarried sages, took a glimpse at the Divine Presence, the Divinity of paradise, and it was too much for him and he died, just like the sons of Aaron. His friend and contemporary, ben Zoma also took a glimpse, as a result of which he went through a traumatic spiritual-psychological transformation and he went insane. Obviously, the way a sage went insane is not exactly the way that we would imagine a normal person who went insane. So even though they were both unmarried sages, there was a difference between the two. One died and the other lost his mind.

The third sage is Acher. He also took a glimpse at the great light of paradise, but what happened to him was another unfortunate thing, he lost his faith and became a heretic. In some ways, this is something even more tragic than dying or going insane.

It is hard to envision how one loses his faith by taking a glimpse at paradise. The way the sages explain this phenomenon is that there is a certain archangel in the World of Formation whose name is מט"טרון (the name is not usually to be pronounced). One of the functions that this archangel performs is to sit on a chair at a desk and write down the merits of Israel. Whenever a Jew does a mitzvah, whenever you give charity, he sees exactly that you did a good deed and he writes it down. He is the scribe who writes all the good things that Jews do. Because he has this very positive function, he is on "our side" as it were, always trying to find more good things and to write them in his book, he has special, unique permission to sit down at a desk. Other angels are not allowed to sit down at all, they are always standing.

In general, angels have two purposes. The first purpose is to either serve the Creator in great love or in great fear and awe. If he belongs to the camp of Michael, then he

serves God with love, and if he belongs to the camp of Gabriel, then he serves God in fear, but, in any event, he is serving God and serving God is always standing up, like in the Temple, where all service of God is standing up. The other function that an angel serves is to be a messenger, to bring something down here to this world. He is always either serving God standing up, or he is on the move, but angels never sit down. The only exception to this rule is the angel, מט"טרון. He has special permission to sit because he has such a positive function to perform, which is to write the merits of Israel.

When Elisha Acher, the third of our four sages, entered paradise, the first thing that he saw upon entering the World of Formation was that this angel was sitting. He didn't see what he was doing, he just saw that there was an angel sitting down at a desk and working. He had learned that angels do not sit, because angels are not entities separate from Divinity. The Arizal explains that, metaphorically speaking, an angel standing up implies a consciousness that is null to God. Similarly, to sit implies having an independent consciousness. Because the first thing Elisha saw was a spiritual being that was apparently an entity that was separate from God, he lost faith in the perfect unity of God. Obviously, what Acher was not aware of is that God gives him and only him special permission to sit and inscribe the Jewish People in the Book of Life by writing down all their good deeds.

The sages continue to explain a very important thing, that after he saw this and left, they took this angel, the archangel of the World of Formation, he was punished with sixty straps of fire. Even though he was doing his duty by writing the merits of Jews, since angels are intelligent beings, he should have been aware of the fact that the sage Elisha was now seeing him and he should have realized the confusion that would result from

that in his mind and the consequences that would result from that confusion of seeing him sitting down. The archangel was therefore punished because he should have immediately stood up when he saw him, even though he was sitting down for a good purpose.

If an angel is in the highest of the four worlds, the World of Emanation, where there is no self-consciousness whatsoever, he can only do what he is expected to do. In the World of Formation, however, where this angel resides, and the connotation is that he is the minister of that particular World, there is still a certain element of being able to do something better or worse. Such an angel does not have an evil inclination to tell him to do something wrong, but he does have a mind and in his mind he is able to make decisions according to his judgment. However, angels are liable to make mistakes, just as even a great sage who serves as a judge in a Jewish court can sometimes make a mistake by incorrectly balancing the considerations in his mind. This type of choice is not because one possibility is the advice of the good inclination and the other is the evil inclination and the Jewish soul is told, “choose life, choose good”, rather it is something far more theoretical that can have far-reaching practical effects. One can choose either right or left, however sometimes one may make the wrong decision and even an angel in the World of Formation can make the wrong decision. That is why he was punished sixty lashes of fire because he didn't stand up automatically when he when he sensed that Elisha Acher was entering paradise.

The idiom used in the Talmud for Acher's loss of faith is that, “he cut down the saplings” which is in tune with the fact that the pardes is an orchard.

Reaching for Unity

The fourth sage was Rabbi Akiva, who entered in peace and left in peace, ascended

in peace and descended in peace. One of the simple readings in Chassidut is that to descend in peace and to ascend in peace is that even before you begin to enter into paradise, you make a firm, existential decision in your heart that you will turn back at the critical point, where you can continue to proceed forward, or recede from this point of no-return. Before entering, one makes the decision that the moment one receives a sign from God that one more instant of proceeding will result in tragic consequences, he will immediately turn around and go back. By making such a decision, he will be sensitive to the sign when he receives it. However, as soon as one begins to enter, one actually forgets that decision, for if he was thinking as he was ascending that there will be a moment in time when he will have to stop, it would negatively affect the ascent.

This entire event took place simultaneously and it was a common effort of all four sages working together as one unit with a common objective. In a certain sense they were all students of Rabbi Akiva and before they did whatever they did, Rabbi Akiva gave them some short instructions to follow. He told them that when they reach the point of pure marble stone, which gives the impression of being infinite, impenetrable waves of water, they should not say that it is "water, water," as it says, "he who speaks falsehood should not appear in My sight." Rashi interprets this to mean that they should realize that this is merely an optical illusion and they should continue despite it and not be afraid. The Arizal explains more deeply that Rabbi Akiva repeated the word "water", because entering paradise is returning to the creation of the universe, which began with the letter *bet*, the second letter of the *alef-bet*, which has a numerical value of two. It would seem more appropriate to begin creation with the *alef*, which is the first letter and has a

numerical value of one.³ However, in the first verse of creation the *alef* is not explicit, rather implicit because if it begins with a *bet* it implies that there must be an *alef* before it. The Arizal explains that entering the *pardes* is an attempt to reach the implicit unity inherent in the *alef* that precedes the duality that is explicit in the *bet* of creation.

In order to explain this further we must contemplate the written form of the letter *alef*. The form of an *alef* is a line in the middle with a *yud* above it and a *yud* below it. One of the things that the form of the *alef* represents is the union of the higher waters and the lower waters; the higher, male waters, which are the seminal seed of the father (the upper *yud*) and the lower waters of the female seed of the mother (the lower *yud*). The *alef* represents their becoming absolutely one in the formation of a new soul. Once again, this absolute unity of two alludes to the content of the Song of Songs. If one succeeds in the endeavor of entering the *pardes* then one penetrates the *bet* of *bereishit*, reaching the implicit *alef* of unification that precedes the *bet*. This means, discovering the Divine power of unification that bonds two souls together as one, allowing pregnancy to begin. The numerical value of *alef* is one and *bet* is two.

Having explained the form of the *alef*, we can now begin to understand Rabbi Akiva's warning not to make a distinction between the higher waters and the lower waters because at that point it has all become one essence which represents the pregnancy of a new reality that is created continuously. One of the primary foundations of Kabbalah, is that we believe that the creation of the world was not just a one-time occurrence, rather it happens continuously at every single instance. We can therefore understand that these four sages were attempting to experience continual recreation at every moment, which

³ The Ten Commandments, given at the Revelation at Sinai, begin with the letter *alef*.

means, continual union of the higher waters and the lower waters even though on the second day of creation they will become separated by a firmament in between. The *alef* eventually divides into three elements, the line becomes the firmament, the higher *yud* is the upper waters and the lower *yud* is the lower waters, but prior to creation, it is all one. Saying, “water, water” at the level of the *alef* would imply that there are two bodies of water which means that there is a schism between male and female at that level, which Rabbi Akiva teaches is complete falsehood.

Since three of the sages were not successful, they apparently were not able to stand up to the test of reaching the place of pure marble stone and seeing the waves of water approaching, as in Rashi's literal interpretation, or of thinking that it is two bodies of water, according to the Arizal and it is not one absolute unity of the seed coming into reality in pregnancy.

Four Archetypal Souls of Old

We have already mentioned that ben Azai and ben Zoma in some way resembled the sons of Aaron. Continuing this line of thought, this endeavor, which Rabbi Akiva wished to achieve, was not the first time attempt in history to enter the *pardes*. We have seen that there are four possible scenarios for someone who makes this attempt, either one dies, goes mad or becomes a heretic or one is in total peace, entering in peace and exiting in peace.

Let us now examine the archetypal souls who attempted this endeavor. Obviously, the first great soul who entered paradise and came out as a heretic is Adam himself. "Adam was the first heretic," is the expression that Chazal use. He had just been created, formed by God, so he should have known better. No one else was the first man who God

created and he was already in paradise, yet something cracked in his mind and he succumbed to eating from the forbidden fruit. First, the serpent seduced Eve by telling her that if she ate from the fruit, she would become like God and Adam followed suit, believing that a human being can be God; the ultimate heresy. There are many implications to the primordial sin but the most profound is that something broke in their faith system. This is the reason why they did not merit being the first Jewish souls, despite the fact that they had the potential to be so. Had they stood the test, and not sinned, they would have been the first Jews in the world and all of humanity would have been Jewish. But since they fell, they lost their potential Judaism. Before they fell, it says that God breathed into Adam's nostrils the soul of life and that is the Jewish soul as the Alter Rebbe explains in the second chapter of Tanya. Nonetheless, that connection and the potential of becoming a fully fledged Jew, were lost with the primordial sin, because in order to be a Jew, one must first have perfect faith. Avraham Avinu had perfect faith, which is why he was chosen to be the first Jew.

The next great soul of humanity was Noah and he was miraculously saved and entered a new world. During the flood the higher waters descended, meeting the lower waters annihilated the previous world. The sages' expression is that he saw a new world. Noah left an old world and entered a new world of unity. Even though it doesn't explicitly state that he entered the pardes, we are taught that he entered a new world. Adam had no need to enter a new world because the whole world was new because he was the first man and everything was new for him. However, Noah was born into an old world that was corrupt and had to be destroyed but God chose him because he found favor in God's eyes and he was saved. Noah's ark is a symbol of paradise because all the animals lived

together in peace.

When Noah exited the ark, the Torah relates that he planted a vineyard. This was an attempt to make the new world into an orchard in order to continue the idyllic world of the ark "paradise". However, Noah did not plant a pomegranate orchard, he planted a vineyard and he drank from the wine and experienced drunkenness, which is a kind of temporary insanity. During that period of temporary insanity, his son did something very bad to him (there are various opinions exactly what that bad act was) that had universal ramifications for the rest of time. As a result of that he cursed his grandson and all of history has since been affected by that tragic event.

Adam was the first person to enter the *pardes* and he came out a heretic. Noah was the next person to do so and he went insane. These two souls were not Jewish souls. After Avraham Avinu were seven generations until Moshe and Aaron so Nadav and Avihu were the eighth generation and they experienced the *pardes* experience and they died, like ben Azai.

The original Rabbi Akiva was Avraham Avinu of who it is written that he planted an orchard in order to provide fruit for his guests. Avraham is the only one who planted such an orchard in the entire Torah. His purpose for planting the orchard was in order to do acts of lovingkindness with all of humanity. Since the orchard is a symbol of the mysteries of the Torah, we can understand that this also means that the mysteries of the Torah are all for the sake of lovingkindness.

Avraham Avinu planted the orchard and he entered it in peace and came out in peace. It was for this reason that he was the first Jew and all of us as Jews, must take the example of this ultimate role model for every Jew.

Accordingly, Avraham was also the author of the first book of Kabbalah, the mysteries of the Torah, called *Sefer Yetzirah*, the Book of Formation. Note that the word that is used is “formation,” as the Arizal said that the orchard experience is in the world of Formation

From here we see that in history there were the four original, archetypal souls who preceded the four sages who entered paradise and each one came to a different end.

613 Sweet Seeds

Now, let's say a word about the pomegranate, in the Song of Songs the orchard is a pomegranate orchard. The pomegranate is one of the seven species with which the Land of Israel is blessed. The Sages say of the pomegranate that it has very coarse skin (shells) to it but it is full of sweet seeds. A completely developed pomegranate has 613 seeds which correspond to the 613 *mitzvot* of the Torah. There is another verse in Song of Songs which refers to the pomegranate, that praises the beauty of the bride, “Your forehead resembles a segment of pomegranate,” the word used for “forehead” is רקתך which is interpreted by the Sages to mean, ריקנים שבך, "those who are empty amongst you." The bride of Song of Songs is the Jewish people and the groom is God, who praises the beauty of the bride and the bride praises the beauty of the groom. The sages explain that even those who superficially appear to be empty of good deeds, those very simple Jews who seem not to do any *mitzvot*, who appear to be not observant, are as full of good deeds as a pomegranate is full of seeds. Since the pomegranate has 613 seeds, it means that every single Jew also contains the entire consummation of 613 mitzvot of the Torah.

Why is this species attached to paradise more than any other fruit? One of the teachings of the Ba'al Shem Tov is that the essence of Yiddishkeit begins with love of

Israel, this is a great rule of the Torah and recognizing, as the Ba'al Shem Tov did, that the simplest Jews are full of good deeds and even though this may not be apparent, he is still full of the potential of doing good deeds. The Ba'al Shem Tov says, "Every Jew is like a land full of treasure that is buried in the earth, you just have to pick it up and reveal it." The emotion of love is that which enables us to enter the mysteries of the Torah in peace and come out in peace. This means developing a state of consciousness that recognizes that every Jew is as full of good deeds as a pomegranate. Such a state of consciousness brings us to a deep and binding love for every Jew. Just like the angel who Acher saw, we must always study and inscribe the merits of the Jews – that is our national occupation.

Four Approaches to Rectification

There is one place in the Zohar that explains that each of these four sages corresponds to one of the four elements of creation. These are not the 92 elements as science recognizes them today in modern chemistry, but a much more general concept that appears in rabbinical literature. In the ancient text of *Sefer Yetzirah*, only three of these elements are mentioned: air, water and fire, but in general there are four and the fourth is earth.

The mission that Rabbi Akiva's exclusive "military" unit was attempting to accomplish was to rectify the primordial sin, as we have mentioned. In order to do this, they had to establish a *pardes* consciousness which would ultimately permeate all of Jewish consciousness. When Adam and Eve sinned, the whole of reality fell (fourteen levels). Obviously, every great *tzadik* from Avraham Avinu onwards has desired to achieve the rectification of this sin in order to bring redemption to the world and to bring Mashiach. In our generation, the sage who entered the Pardes with that explicit

consciousness of bringing Mashiach and redemption was the Rebbe. The ultimate goal of every sage is to enter the *pardes* in peace and leave in peace, like Rabbi Akiva.

In the Zohar, and explained by the Arizal, we learn that each of the four sages who entered the *pardes* intended to rectify the sin on one of four different levels through the means of one of the four elements. Ben Azai, who glimpsed at the light and died, was trying to rectify all of reality through the element of earth. This means that he tried to elevate and rectify the dust aspect in every realm, *sefirah* and *partzuf*. Ben Azai looked for the dust aspect in every matter of creation and tried to elevate all of those earth points in the belief that by rectifying them, he would rectify all of reality. In the same way, all of the other sages had the same idea, with reference to each of the four elements.

Ben Zoma, who went insane, thought that you have to work on the air element throughout reality and if you collect all of the sparks of air, wind and spirit, throughout reality and elevate them back to their original state of in the World of Emanation, then all of reality will be rectified.

Elisha Acher who became a heretic, believed that you have to rectify the fire of the world. You have to get to all of the fires and elevate all of the fires and that will rectify everything.

Rabbi Akiva thought that you have to get to the water in everything, which corresponds to the inherent pleasure in every aspect of creation and if all of the pleasure would be elevated and become Divine pleasure, then the entire world would be rectified.

Obviously, we see that the one who was most correct of these four was Rabbi Akiva who believed that the pleasure aspect of reality must be rectified. Now we see very beautifully why he says, when you reach the place where you see water, do not

differentiate between the two bodies waters but realize that there is only one essential body of water. There is a place where the souls of the groom and the bride are absolutely one before they split and that is the place that we have to reach and it is all one love. In the Song of Songs the highest level of love is called a love of pleasure, "how pleasant and beautiful is your love of pleasure," and that is love of Israel, that is what has to be rectified. Rabbi Akiva first identified and then elevated all the water parts of reality, the hydrogen element. In chemistry itself, hydrogen is no. 1 the most abstract of all elements. Hydro means water and hydrogen is the essential component of water, the oxygen part is the air element that we breathe but the hydrogen element of water is the water element. Even in chemistry, all elements are just composites of the hydrogen atom because hydrogen is one, one proton and one electron, and all others are just additional atoms of hydrogen, as it were. That is just like the great *alef* of creation that precedes the *bet*. So Rabbi Akiva wanted to elevate the lower waters, the lower pleasures and unify them with higher waters, which is solely the Divine pleasure of experiencing my own nothingness and not my own somethingness. Experiencing physical pleasures is merely a feeling of the self but to experience Divine pleasure is to experience myself becoming nothing. My ego is a barrier to prevent the revelation of the Divine in general and to experiencing Divine pleasure, in particular. Rabbi Akiva understood that the rectification of the primordial sin is primarily the rectification of the water aspect of reality.

We will now try to understand this point a little deeper. If one contemplates the way the Zohar identifies each of the four sages with one of the four elements and how the Arizal explains it, it appears that ben Azai believes that all of reality should be rectified through the means of the element of earth or dust. After the primordial sin, God

addressed Adam by saying, "Everything came from the dust and everything will return to the dust." This is why ben Azai, who entered the *pardes* with the consciousness that the earth has to be elevated to its origin in the World of Emanation, died, because there is something about dust that has to do with death, it is like a death experience. The Ba'al Shem Tov said that he knew that he did not necessarily have to physically die; he could walk to heaven in fire, like Eliyahu Hanavi, but he preferred to fulfill the verse in the Torah of returning to dust, which is why he chose physical death.

An Updated Agenda

In modern scientific terms, the fact that everything comes from the dust and everything will return to the dust, refers to the physical sciences. Thus, our agenda and desire is to rectify as much of reality as we can through unifying Torah and science and seeing the origins of science in Torah. This means perceiving the physical sciences in general and physics in particular, from a Torah perspective and to embellish physical understanding of the universe from insights that are derived from the Torah. This is similar to ben Azai's approach and realizing that the rectification of all of reality depends on the rectification of the dust element. Dust is real physical reality, the physical side of things and to elevate it means to elevate physicality to its origin in Divinity through finding its roots in the Torah. However, to think that the sole rectification of reality is in physicality results in death, like ben Azai. It is a great thing to achieve that, but if we think that that is the ultimate key and that is the only way to achieve redemption, that is to glimpse and die.

The second faculty of study that goes together with the physical sciences is the humanities. The literal translation of the Hebrew term for the humanities is, "the sciences

of the spirit". This corresponds to ben Zoma's world view. The element into which he concentrated all of his energies was the element of spirit, of air. Ben Azai and ben Zoma were the two closest friends. If ben Azai was trying to unite science with Torah, ben Zoma was trying to unite the humanities with Torah – but he went insane. It is easy to understand why someone who delves too deeply into the humanities can go insane. The humanities are related to spiritual endeavors of self-expression, whether it be poetry, literature or other subjects that do not relate to the exact sciences. The Ba'al Shem Tov explained that there is no reason why people go insane other than arrogance; excessive ego. Self-expression, to be solely involved in the arts and other humanities can be easily identified with losing one's mind.

Elisha Acher corresponds to fire, which refers to might and judgment. This corresponds to trying to rectify the world by rectifying the corrupted legal system, as the verse in Ecclesiastes states, "evil is found in the place of court." Another aspect of fire is war, which, in this case, refers to rectifying the state of war in the world. Sadly, one of the most terrible educational phenomena in our modern world is that most entertainment and movies are about war, murder and bloodshed. The fact that people are entertained by that means that there are a lot a fallen sparks there that must be rectified. Elisha Acher believed that we have to reach the fiery parts of our world and elevate them to Divinity. His soul was one that emanates from the left and thus relates to fire.

In contrast to Acher, Rabbi Akiva comes to rectify erotic movies, love stories. He realized that the way to rectify reality is by elevating the pleasure of love. Each of these four sages in the Talmud has a verse from the Bible that relates to him. Rabbi Akiva's verse is the only one that comes from the Song of Songs, "Draw me to You and we will

run together," which refers to Rabbi Akiva entering the *pardes*. Rabbi Akiva is most identified with the love Song of Songs, which is why he was the only one who succeeded in entering in peace and leaving in peace.

Rabbi Akiva's Mistake

There is one place that states that even Rabbi Akiva's ascent to paradise was not so simple. As he was about to enter the World of Formation, the angels on High (not the angel we mentioned previously) tried to push him out and would not allow him into paradise. This is surprising because we would expect Rabbi Akiva, who was the successful one, the peaceful one, to enter unhindered. Nonetheless, all the angels tried to push him out until God Himself intervened and said, "allow this old [or, "wise"] man to enter in peace and come out in peace, because he is worthy of making use of My glory." None of the others reached this stage but Rabbi Akiva experienced a critical moment when the angels tried to push him out.

The Arizal explains that the angels did not initially allow Rabbi Akiva to enter because even though he was in a state of *shalom*, meaning that he was, "peaceful," and also, "complete," nevertheless, he was also blameworthy of a profound mistake. His mistake was that he thought it was possible to rectify the whole of reality by means of only one of the four elements. He did not pay attention to the fact that reality is very holistic or interinclusive and in fact, each of the four elements is contained in every aspect of creation. The four souls who came to rectify as a team, entered together through four different "doors," in order to rectify the sin of Adam. However, even though each one enters through a different door, each of them must experience and acknowledge every one of the other approaches. The other option is that there should be one person who

rectifies all of the approaches simultaneously. The Arizal explains that the angels were correct when they tried to push Rabbi Akiva out, because, ideally, he himself should have entered all four doors at one and the same time. Although we might think that that is an impossible feat to accomplish, we find that the most modern trend in psychology is the integration of different approaches. In the case under discussion, we find four different approaches, but none of them are complete, therefore none of them is effective by itself. The water method works the best because it is the most all-inclusive of the four, nonetheless, it is still not the perfect integration of all four together. Had Rabbi Akiva himself been able to integrate all four approaches together, not only would he have entered in peace and come out in peace, he himself would have performed the true and total rectification of the primordial sin and that would have immediately brought about the redemption and Mashiach. However, Rabbi Akiva did not succeed because he was relying on the other three. The angels had a case in point when they claimed that Rabbi Akiva should have accomplished it all on his own by integrating all four approaches, entering all four doors simultaneously.

There is definitely something special about Rabbi Akiva's approach, yet rectifying the water aspect of reality by developing and perfecting our love of every Jew is not the only path. There is the earth aspect, which involves unifying the natural sciences with the Torah. Unifying the humanities, the spiritual disciplines, with Torah is also very important, that is the air aspect of reality. Whether fire refers to law or to war, it is another aspect that must also be elevated. Thus Rabbi Akiva's approach should have allowed an integration of all four aspects of reality in order to achieve the ultimate redemption.

Conclusion

To conclude, we must realize that our generation is a generation of integration and in order to rectify the sin of Adam and to bring Mashiach into the world, we have to elevate all four elements of reality. This depends entirely upon revealing the mysteries of the Torah which can only be achieved through a love of the Jewish people. This is the interpretation of the pomegranate orchard; seeing the infinite, latent potential in every Jewish soul even if he appears to be empty.

In every generation, each of these four souls appear and in order to bring about the complete redemption, may it be speedily and in our days, we must act to integrate each of their four approaches into one unified approach that will, in turn, bring about a rectified, Divine consciousness to the world.

Appendix

Comment of the Editor of Torahscience.org to the “Rabbi Akiva and Quantum Mechanics” article:

There is an intrinsic difficulty in comprehending the central metaphor presented in this article. The four sages went through four gates and in the ideal scenario they would have gone through all of them at the same time and in an integrated way. What is the difficulty with the metaphor? Physical gates are separated from one another and there doesn't seem to be any benefit in going through all four at the same time. Even if one did go through all four at the same time, the participants would be doing four separate acts that are not connected with one another. That is to say we are looking at the physical logistics implied by the metaphor and we end up doing a kind of simplified physics that involves moving bodies through entrances. Now the phenomena alluded to in the gemara is not physical and the gates are spiritual gates. Are there additional metaphors that can us help understand this? It turns out there is one and it is the famous two slit experiment in quantum mechanics.

The key to this experiment is that microscopic bodies have vastly different and counterintuitive properties from the macroscopic bodies we are used to in our everyday life. It is hard to improve on the demonstration given on the Professor Quantum video.

see <http://www.youtube.com/watch?v=DfPeprQ7oGc>

For technical reasons, due to the tiny dimensions needed, most actual experiments are done differently from that shown in the video. Mathematically, however, they are nearly equivalent to what is shown.

Conceptually, at least, one can construct the apparatus by shrinking down the following to very small dimensions. Visualize yourself sitting in front of a table on which three objects are mounted: X, Y and Z. X is a "gun" that can shoot particles and it is on your left and it is aimed to the right. Y is a plank that is mounted on its side in across the middle of the table, and two slits, slit A and slit B, are cut in the middle. Z is a board mounted on the right hand side of the table. When particles are shot from X most of them hit the board Y mounted in the middle and some go through slit A and hit Z, some go through slit B and hit Z and most of them simply hit Y and bounce back. If we think of each particle as being wet with white paint then the ones that eventually hit Z will make a tiny white dot where they hit. Over time if we fire enough particles, a pattern will form on Z of white dots, much like a pointillist's painting. In the case of a big apparatus like this the overall pattern of dots will be two vertical lines paralleling the two slits A and B. If we close either slit there will be a single vertical line. However if we shrink the apparatus down to microscopic size (and make a lot of other changes in order to make it work), then this changes radically and there will be a whole series of stripes all along wall Z. This is called interference and can only be modeled mathematically by assuming, contrary to intuition, that each particle goes through both slits at the same time.

What is the importance to us of this metaphor? We see that, potentially, there can be a great deal of difference between going through the four gates in a non-integrated way and going through them simultaneously in an integrated way. Going through the gates simultaneously in an integrated way is analogous to the particle going through the two slits at the same time. Note that the particle retains its "yeshus" as a particle before and after going through the slit. However, repeated occurrences of this have a cumulative effect over time and create a beautiful pattern. One could argue the same will happen in our nimshel. Repeatedly going through the four gates

together will "combine' into an "interference pattern" and thus create a new entity.

Rav Ginsburgh reply to the above comments:

We actually had this physical parable from quantum mechanics in mind while teaching the class. One of the lessons from this is that the true sage of the future able to unify all four elements must be able to reduce his size (yeshut) to that of an elementary particle (which in truth is not a "thing" at all, meaning that he is in a total state of bitul, the inner psychological state of chochmah, wisdom), and then in the words of the Zohar, "he who is small [ze'eir] is great," capable of working "great deeds" reflecting mysterious quantum properties such as being in many places and entering many doors simultaneously. In the mesorah the term "small" (ze'eir) refers to the letter yud, the "formed point [wave-like particle]" suspended in mid air, the first letter of HaShem's Name, representing Divine wisdom and absolute bitul.. The fact that observation causes the wave pattern to collapse reflects the absolute humility of the true sage, the fifth teaching of teshuvah, as explained in Hayom yom, p. 94 in the name of Rebbe Zusya.