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B"H

The Connection between Science and Faith

¹The Presence of "Precious Stones and Gems" in the Zevulun Valley

Based on the Words of the Lubavitcher Rebbe

The following is my scientific opinion regarding the activities of "Shefa Yamim (A.T.M.) Ltd" in its search for diamonds and precious stones in the Zevulun valley, based on the prophecy and assertion of the Lubavitcher Rebbe, given to the then mayor of Haifa, Mr. Arye Gurel (Sivan 5748 -1988).

“In Haifa, there is a sea. One shouldn’t become intimidated by something that is deep. This is the uniqueness of Haifa - that it has a sea and that there is a valley and in the valley are precious stones and gems. The Holy One, Blessed Be He, did a wondrous thing; he concealed them in the depths of the earth, and in any case, in the depth of the river...”

Introduction

Following the prophecy of the Rebbe, the Shefa Yamim corporation began prospecting and excavating for diamonds and precious stones. His comments were not only an instruction about what to do and where to go, they were in fact a prophecy as to the actual existence of diamonds and precious stones in a particular place.

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In addition it was obviously a blessing, providing assistance from the concealed, spiritual world to the Company personnel in their endeavor.

Since I, in my own personal experience as a man of science, was privileged to receive numerous astounding pieces of advice from the Rebbe, I shall present the facts to show why I have no doubt whatsoever - in light of the prophecy, teaching and guidance of the Rebbe regarding the existence of "precious stones and gems" –that the Shefa Yamim corporation will, in the end, find diamonds and precious stones, in exact accordance with the prophecy of the Rebbe, and in large quantities and rare, unique and wonderful quality.

The Beginning of the Rebbe's Involvement in My Scientific Endeavors

Thirty years ago I learned from the Rebbe that the more deeply a person becomes involved in science, the more he realizes that not only is there no contradiction between Torah and science, but rather there is complete harmony, and no wonder, since the Torah is the blueprint for the universe. The Holy One Blessed be He, as the famous saying goes "looked into the Torah and created the world". He saw this entire material world of ours, and therefore there can be no contradiction between the product, that is to say the creation, and the blueprint according to which it has been made.

During my first personal interview which took around two hours (a significant amount of time), the Rebbe paid careful attention to my professional activities in the fields of physics and magneto-hydrodynamics, and to solving questions concerning the relationship between Torah and science, whilst asking philosophical questions, and giving advice directly related to my work in this field. I will not go into all of the details, there were many intermediate stages, but in the end, as a result of the instructions, directions and guidance of the Rebbe, I received a contract from the American navy which was renewed over the course of eight years, year after year, and which enabled me to open a center for magneto-hydrodynamics. I should point out that my profession is unique in the Middle East and that I have been working in it for close to thirty years since I made Aliya to Israel.

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**The Source and Type of Knowledge Which the Rebbe Uses In Connection
With Science and Technology**

It is well known that, among other things, and quite by the way, before the Rebbe accepted the mantle of leadership, he studied in a number of European universities. He was sent there by the previous Rebbe, and received at least three doctorates, in Physics, Philosophy and Mechanical Engineering, from some of the most respected learning institutes in Europe, such as the Sorbonne in Paris, the Polytechnic Institute in Paris and the University of Berlin. There is, however, no doubt that this does not constitute the basis of the Rebbe's ability to judge and prophesy, to see within the future all sorts of developments concerning science and technology.

For a normal person, receiving three doctorates from European universities is in itself an unusual achievement. Not so for the Rebbe. By comparison to the Rebbe's awesome personality such achievements are dwarfed into insignificance.

I would like to relate an incident which came to light a number of years ago and was published as an article (two years ago) in the respected journal "Popular Science". It concerned an invention, created and developed by the USA navy, in a plant at Brooklyn. The article mentioned briefly that the invention facilitated the protection of ships from aerial attack, and worked on the principle of a strong light, a particular form of blinding, which was described briefly, without providing details. The interesting thing was that the code name of the project was: "J.E.W." In short, it became known that at that time, during the Second World War, after the arrival of the Rebbe in the USA, the Rebbe went to work every day at the naval plant in Brooklyn, which was not far from the world center of Lubavitch in Brooklyn. It was the Rebbe who developed the technology and means to protect the American ships from attack by airplanes. What is even more amazing is that when representatives of Lubavitch approached some high-ranking navy officers to ask for additional details of the Rebbe's invention, they were told that the officers were unable to fulfill their request, as the invention was still defined as secret and classified.

One has to fully appreciate this fact. After the passage of 60 years the Rebbe's technological invention is still secret and classified!

Military technology generally loses its significance within a period of two to three years...10 years at most. In any event, I have not heard of any technology, military or otherwise, which has retained its significance and importance for 60 years. Again, if this were the achievement of an ordinary man, or even of a great scientist, it would have brought him great honors, perhaps even a Nobel Prize for science. This, however, is dwarfed in comparison to the other great things which the Rebbe has achieved, by virtue of being a Zaddik (righteous man) and

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the prophet of our generation, and by virtue of his ability to rise beyond the material world in which we live, and to see things from a different perspective; to see and prophesy things which cannot be seen by an ordinary Jew.

A person such as myself knows that there are millions of examples, in all sorts of disciplines, which show to what extent the Rebbe is always right, to what extent he sees things which are not visible to ordinary Jews, and the degree to which we must follow his instructions.

The Rebbe and Science

This is the appropriate place to present a quote from a book entitled "In the Eye of the Heart" (which I wrote in conjunction with Mr. Abraham Naveh, and which was published in 1989 by Abraham Naveh Ltd), in which the connection between the Rebbe and science is explained at great length and in great detail:

Our era is exemplified by highly impressive developments in various fields of science and technology. This process began 200 years ago but has accelerated significantly during the last hundred years and, more than anything else, has left its imprint on human life. During this period all fields of technology have developed, but particularly the fields of communication, transport and the creation of new materials -- plastic and others.

The exploitation of atomic energy, journey into space and the race for computer development on the one hand, and the penetration of technology and "smart" household items into everyday life on the other, have left a strong impression on the human mind, strengthening the feeling that mankind has achieved these developments through its own abilities. Theoretical and experimental science has achieved very impressive results, particularly in the field of physics, but also in other areas. These achievements have led to the technological "explosion" which we have been referring to.

The technological revolution has led to the phenomenon of ideological and spiritual discomfort in many disciplines, among them the field of religion. Many people explain their estrangement from Judaism by the fact that the world has "changed", that today we are "more enlightened" etc. Even among those who are supposed to be the educators of the younger generation there is a feeling of great discomfort. They may be divided into two groups:

Representatives of the first group attempt to "adapt" Torah ideology to the "modern" times and thus distort the basis of Torah ideology.

The second group condemns scientific/technological developments, or at least ignores them, and thus leaves the simple believing Jew -- and particularly the developing adolescent -- with no answer with which to face changing realities.

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The Rebbe's opinions regarding all these developments are absolutely clear and unequivocal. He has expressed them on numerous occasions, in meetings with scientists and students, in letters, in conversations and gatherings.

Firstly one should not be overawed by the scientific/technological "explosion". It is written in the Zohar that in the sixth century of the sixth millennium, both the Gates of Wisdom above and the Springs of Wisdom below will be opened -- that is to say, that developments in the field of Torah -- the revelation of hidden secrets by Hassidism -- will bring in its wake a corresponding development in "external" knowledge -- science.

Science, like all creations, is in itself neutral, and it cannot be defined in terms of "good" or "bad". It all depends on the question of whom, and to what ends, science serves. The same is true of all new inventions, which are based on its development. But the whole world and everything within it have been created "for the sake of the Torah and for the sake of Israel", and "all that the Holy One Blessed be He has created in his world, is only for His honor". That is to say that science and technology, like all other creations, are intended to serve the purpose of holiness, and this clearly depends upon the way in which the Jew uses them. The intention of the Holy One Blessed be He is obviously that this usage be carried out in a sanctified manner and for a sacred purpose. This clearly depends upon man's free choice.

The Rebbe discusses the example of the discovery of electromagnetic waves, and the invention of radios. He states that there are various levels, one above the other, which allow us to understand how to use this invention for holiness, and to strengthen Judaism.

First and foremost, radios greatly increase the circle of Jews who can listen simultaneously to words of Torah. In addition, the spread of the electromagnetic (radio) waves themselves, carrying Torah information into space and through large expanses - around the earth itself and to the moon and beyond, fulfils, in a certain sense, the verse "The earth shall be filled with the knowledge of the L-rd" in the most literal and physical sense (the Rambam, as is well-known, uses this verse to describe the situation of the world at the time of the coming of the Mashiach). Finally, whoever thoroughly investigates the phenomena of magnetic and electric fields discovers the intrinsic connection between these two important phenomena, which appear so disparate at first glance, but which are in fact unified. Through the means of this discovery man is better able to see the unity of creation, and, through this, the unity of the Creator himself.

On one occasion during a private interview, the Rebbe explained to one of his Hassidim, a scientist by profession, why there is no purpose to be served by taking part in speeches and discussions on the Torah and science, even if that Jew has received from the Holy One Blessed be He the gift of "simple faith" and has no doubts or difficulties in this area. On the other hand, one should help and encourage a Jew who has been confused by the "modern" world, and has absorbed the well-known argument that science has, as it were, disproved and negated the Torah (and in this way he explains and excuses his distancing himself from the

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Torah and its commandments). With such an individual one should analyze the arguments in great detail, relying on expertise both in Torah and in science.

Regarding what is termed "contradictions between Torah and science", the attitude of the Rebbe is, as usual, clear and unequivocal. The Rebbe has spoken on this topic many times at gatherings and at meetings with students and scientists.

In very general terms, the Rebbe's explanation is as follows:

Since The Holy One Blessed be He "looked into the Torah and created the world" (that is to say, He created the world according to the Torah), there can be no doubt that "creation" -- the world, and the forces of nature -- cannot contradict, in any way, the blueprint according to which it was created. This is in contradistinction to the opinion of those who take an apologetic stance, who are apologetic due to a sense of inferiority, rushing to "adapt" the ideas of the Torah to the latest scientific announcements, or those of journalists engaged in "interpreting" science in one field or another. The most famous instance of this trend is a tendency to explain the six days of Creation, not as literal days, but rather as epochs. This, as a reaction to all sorts of theories, which have appeared during the last few years, which speak of the age of the world and evolutionary development of plants and animals etc. In contrast to those (such as Professor Leibowitz and others) who claim that "the Torah is not a scientific textbook and one should not search within it for any explanations of natural phenomena", the Rebbe stresses that as a "blueprint" of the universe, the Torah relates to every detail within the universe, large and small, and only through the Torah does each individual object exist and receive its life force.

In the same way that there is no place in the universe, heaven forbid, devoid of the Holy One Blessed be He, so too, there can be no object or phenomenon, which is not related to the Torah.

Scientific findings change all the time, a matter on which we shall expand later. Continuous change, and even abrupt change, is not only characteristic, but indeed essential to the development of the sciences. (So emphasizes Karl Popper, for instance, the greatest scientific philosopher of our time). It is inconceivable that, in order to avoid "contradictions", interpretations given by the Torah should also "jump" in rhythm to leaps in scientific theory and speculation! Where there appears to be a contradiction, we must examine the new theory from a Torah perspective as well as ascertaining how the theory itself stands up to logical criteria of scientific investigation. We can be assured of finding a solution and explanation for this "contradiction". However, according to the Rebbe, we should not set a "final date" for finding a solution, because doing so may serve to force us into finding a solution "at any cost", which will inevitably lead to distortion. We should not be alarmed by any delays or difficulties encountered in finding a solution. It is only natural that man, being a creature with limited faculties, cannot always find immediate answers with regard to the nature of the world, which has been created by the unlimited, infinite creator.

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Concerning the value and reliability of scientific theories, the Rebbe emphasized that there are a number of different types of theory. There are those which deal with phenomena and objects with which the investigator can come into direct contact (and with which he can interfere, thereby influencing processes in order to discover hidden features), such as the theory of the essence of matter, or the theory of electromagnetic phenomena. These are the most reliable theories, but even they cannot constitute absolute truth, since it is the nature of science to change its theories when, as a result of new research, new phenomena and characteristics are discovered, which cannot be reconciled with the previous theory, and in fact disprove it.

A different type of theory deals with objects extremely distant from us, such as stars and galaxies. In such cases, before developing a theory, we must consider the significance and meaning of the signals observed by investigators whilst monitoring those distant objects. The results of such enquiries are often ambiguous (this, to a certain extent, is also true of investigations into minute particles of matter -- elementary particles -- whose behavior is measured indirectly. In such cases, however, the investigator can influence the process, something that is impossible in the case of stars). Theories of this type are less reliable.

Finally there are schools of thought which purport to be theory, but which can in fact only claim to be guesses or hypotheses. Amongst these are the "theories" dealing with the imaginary reconstruction of natural processes in the distant past.

To this group belong the cosmological, geological and evolutionary "theories" of the development of the living world. Those who advance these "theories" try, by relying on the current state of nature, and upon physical, chemical and other phenomena that have been investigated in our era, to explain how, and over what period of time, the world reached its present state. They are forced to rely on "extrapolation" -- to deduce additional segments, beyond those under investigation, on the basis of suppositions, assumptions and...intuition.

The Rebbe stresses that those who propagate these "theories" do not disclose that they are dealing with suppositions which, not only are unprovable, but their veracity cannot even be checked.

However, they "sell" these "theories" as absolute truth. The Rebbe also explains why the theory of evolution has proven so tempting to so many people. The reason is purely psychological. A person who forgets, or is unaware, that "He is beyond the perception of man", approaches questions of creation on the basis of his perception, feelings and human intellect. Such a person thinks more or less along the following lines: "If I were to have to create the world, and everything in it, and I were given two choices: one -- to create each formation, mineral, vegetable and animal, separately; or two -- to create matter, to establish the laws of nature and to allow the universe to develop by itself -- I would certainly choose the second alternative. Otherwise I would never have the time. Indeed it would be inconceivable

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to separately create billions of creatures". Such a person is obviously unaware that he is attributing the Creator with limited human abilities and thought processes!

The Rebbe often emphasizes that, especially in our own times of scientific advancement, many scientific notions are conforming to the ideas of our sages. We have mentioned above the possibility of perceiving the Creator through his creations. In this context, the Rebbe notes the unity of matter and energy, as well as that of the different forces of nature; an understanding, which stems from the research of Einstein and others.

The Rebbe often speaks of the fact that, particularly in those instances where conclusions regarding natural phenomena have halachic implications and are described in authoritative halachic works, such conclusions may not be treated, under any circumstances, as "allegorical" or symbolic. So too regarding scientific references in the "Yad HaChazaka" of the Rambam. (The Rebbe notes that, with regard to medical advice given by the Rambam, the situation is somewhat different – this was certainly relevant to its time, but human nature has changed since then). With regard to all of the above the Rebbe says, for example, that when scripture, the sages or even the Rambam, speak of the earth as being at the center of the universe, and the sun as revolving around it -- this is to be taken literally. What is more, according to Einstein's theory of general relativity, there is no absolute position in space. In other words, science today holds that there is no scientific possibility of determining which of two bodies in motion is static, and which is moving. The question itself is meaningless in scientific terms. I should point out that on this question even physicists, who we would expect to have a firm grasp of the theory of relativity, are commonly mistaken. The ideas which they internalized during childhood have such a firm hold over them, that they take precedence over professional training. It is difficult for such physicists to become accustomed to the idea that, even today, the concept of a stationary earth is not at odds with science.

Incidentally, it is only recently, many years after the Rebbe first dealt with this question, that astrophysicists have begun to base their research on the "anthropic principle", which speaks of the centrality of the earth, and the adaptation of the whole of the universe, with all its billions of stars, to one purpose: to create on earth physical conditions suitable for the existence of mankind. Books on this topic have begun to appear even under the auspices of such "bastions" of science as, for example, Cambridge University.

The Rebbe has given special attention to the fact that modern science discredited, as early as the beginning of the 20th century, the principle of absolute causation, which had been popular for the previous three centuries.

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The concept of "determinism" had been made popular by Newton and members of his school of thought. It had been commonly accepted that the connection between "cause" and "effect" was absolute, and that events could be determined ahead of time, to the extent that the French scientist Laplace claimed that if he was given an accurate description of the location and condition of every atom in the universe at a given moment he could, in principle, predict the future of the universe for an unlimited number of years. He believed that this prediction would also include the fate of each human being. This was because Newton and his students followed a mechanistic view, which held that not only the world of inanimate objects, but also that of living beings and even humans could be "explained" and "predicted" according to mechanical principles (or, in today's terms, according to the principles of physics, chemistry etc.). Clearly Laplace's claim left no place, perish the thought, for man's free choice. It also provided sufficient basis for rejecting the idea of G-d's individual supervision of man, his involvement in the world and the possibility that man's prayer and actions can affect the events in the world.

The Rebbe further explained, several decades ago, that since the development of quantum theory has introduced the concept of "uncertainty" into every field of science, (the opposite of absolute causation) it has completely demolished the very foundations of Laplace's claims.

Quantum theory is based upon research into the phenomena of light, and holds that light is simultaneously a stream of miniscule particles and also the spread of short electromagnetic waves. In other words, light has a dual nature. Today, this explanation is applicable to all types of particles which, according to science, make up the universe. Quantum theory also states that it is impossible to predict the behavior of a given particle. It is only possible to determine the probability of a given behavior of a large number of particles. It could be said -- as physicists are only now beginning to understand -- that the behavior, and indeed existence, of a given particle can only be determined after man (possessed of free will -- and not ruled by nature) has observed this particle. It is fascinating to note that the Rebbe often emphasizes the prescription in the Torah, wherein the testimony of valid witnesses presented before a Bet Din, determines not only the halachic ruling, but the reality of nature itself. In other words, natural material phenomena are subject to the evidence of witnesses (Yerushalmi, Ketubot Chap. 11). As we have seen above, only lately are physicists beginning, in some way, to approach a similar conclusion.

A further aspect of our topic is the possibility, as explained by the Rebbe, of drawing scientific conclusions from the words of the Torah. This does not involve mysterious methods, accessible only to a Zaddik imbued with prophetic powers, but rather methods available to all Jews. One need only believe that the Torah contains the answer to every question, and to know that if one relies totally on the words of the Torah, it is possible to attain that which is completely beyond normal human comprehension.

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A simple example of this: the Rebbe discusses the question whether certain aberrations of human behavior are indicative of disease, or whether they are another manifestation of a permissive society, and a low level of morality. The Rebbe states that if this is an aberration, punishable by the Torah, then it cannot conceivably be a disease, for the Torah only punishes transgressions. If the Torah has determined a punishment for this aberration it is a sign that it cannot be considered a disease.

A further example, perhaps more difficult to comprehend, is the Rebbe's reply to the famous question: "Are there intelligent beings in space, who are similar to human beings?"

"It is impossible for such beings to exist" -- answers the Rebbe -- "for man is different from animals in that he possesses free will. The concept of free will appears to be at odds with the concept of ongoing creation, individual supervision etc., but such is the will of the Creator, and he gives us free will through the Torah. Therefore, if we assume that creatures similar to man exist in space, then they must also possess a Torah. It cannot be another Torah, for our Torah is the Truth, and there cannot be two Truths. But they cannot possess our Torah, because the giving of the Torah is described in great detail in the Torah itself. Thus the logical conclusion is that human-like creatures cannot exist in space".

One cannot deal exhaustively with this topic in just a few pages. I have tried to demonstrate how the Rebbe makes scientists, and science itself, a G-dly instrument, and a catalyst for the coming of the Mashiach.

As has been previously noted, the Rebbe addresses himself to each Jew in language most easily comprehended by that individual. Thus the Rebbe once instructed a scientist dealing with solar energy, prior to his attendance at a symposium of Jewish scientists: "Tell them that, seeing as you are concerned with solar energy, you propose that each Jew should try to be like a sun. Why does everyone agree that the sun is good? The sun sheds light, sends forth its light and warmth, shares with all that surround it. That is the way in which every Jew, who is commanded to 'love his fellow Jew', should live. Who would even talk about the sun if, heaven forbid, it only warmed itself?"

On another occasion the Rebbe said: "A Jewish scientist should try to live and act in such a way that he should be presented, first and foremost, as a Jew who keeps Torah and Mitzvot, and then also as a great scientist. Not, heaven forbid, in the opposite order -- a great scientist who incidentally is a Jew who keeps Torah and Mitzvot.

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Parallels between Modern Science in the 21st Century and the Outlook of Torah

I will now briefly review a number of central issues which relate directly to the specific prophecy of the Rebbe regarding the presence of diamonds in the Zevulun Valley.

According to the Rebbe, quantum theory teaches us that **the behavior of elementary particles**, the state and actual existence of bodies and microscopic particles consisting of millions of sub-particles, is dictated by the very fact that man, **who possesses free will**, witnesses particular physical phenomena (particularly with regard to the elementary particles - protons and electrons, which are, as it were, the essential building blocks from which the whole universe is formed). Were man not to observe these phenomena, then material world, as it were, would not exist at all. This is because all modern theories of physics, and particularly quantum theory, are based on "Eisenberg's doctrine of uncertainty", and on the understanding that in the absence of human beings, the world only exists as "waves of probability".

It is difficult to explain this, even to university graduates who have not specifically studied quantum mechanics, so this might not be completely clear, however I will try to expand on a number of central issues:

It becomes apparent, according to "Eisenberg's doctrine of uncertainty", that one cannot simultaneously establish, even with the most delicate and accurate instrumentation, precisely where a given particle is and at what speed it is moving. One can establish its precise position, or its precise speed, but not both.

Therefore, we cannot predict or say where the particle will go, because its position after one second depends on its previous position, and also on its velocity and direction. Since it is impossible to ascertain these two pieces of data simultaneously, it follows that the position of the particle after one second, and certainly after an hour, is completely unknowable.

It is possible to simplify probability. That is to say that there are an infinite number of possibilities where a particle will be, and how it will behave, in a given time period. Here we require an entity that is above nature, and which has at least one characteristic that is above nature. Such a characteristic exists.

In professional literature, in books on physics and in articles written about quantum theory, we find similar ideas. The Nobel Prize winner for quantum theory, Eugene Rigner, wrote in his article "To the Body and Mind Problem", about the problem of the relationship between body and mind – that it is consciousness. In order to establish reality, it is necessary to know precisely the position and behavior of every single particle, otherwise, reality does not, so to speak, exist. It is as if there is an open expanse filled with "waves of probability", and something independent of nature is required in order to establish reality. I know of only one example of such a thing: that is the human characteristic of free choice. Free choice is, by

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definition, independent of conditions imposed by nature. It follows that man is, as it were, in partnership with the Creator. Clearly the Creator is not dependent upon man in order to establish the existence of the material world. However, in the same way that the Creator of the universe imparted to us the trait of absolute free choice which is exclusively his, he also gave us part of this characteristic as human free choice. Accordingly, we are capable of influencing the world by observing it. We not only establish the collapse of "a wave of probability", but, as it were, we establish the existence of an object made of a large number of particles.

This may sound complex, but it provides an inkling, an idea of how a person of the highest spiritual level, who derives no pleasure whatsoever from the physical world and who is totally absorbed with one thing - learning Torah, understanding the will of the Creator and helping his fellow Jews – has the powers of observation, understanding, and influence, which can create the conditions for prophecy, the ability to see things invisible to simple beings.

This is only a general direction which we can give to a person who is totally determined to understand how the Rebbe can prophecy, not only on issues of importance to the people of Israel and their behavior in the State of Israel and the Land of Israel, but also on the existence of diamonds -- a discovery which is not insignificant, but rather will positively influence the lives of thousands and possibly millions of Jews.

The Rebbe's Involvement in the Field of Science

About 15 years ago we made an important development in my laboratory, at the University of Beer Sheva...a development relating to the production of energy. We registered a patent, reported our findings in seminars in universities across Europe and America, and I received the encouragement and approbation of fellow scientists in my field. After that I visited the Rebbe. As usual the Rebbe first discussed the new patent and its significance in research and development. He requested that I go into detail, including the formulae and statistics related to my work.

I could not write down the formulae, as there was no chalk or board in the Rebbe's room, so I went over them verbally. As soon as I finished my explanation **the Rebbe said two things:**

1. It would be possible to improve the efficiency of the apparatus by a further 50 percent, if we activated it in a certain way. It was immediately apparent to me where our mistake lay, and what the Rebbe meant when he spoke of a 50 percent improvement in output.

What astounded me then, and I what cannot understand until today, was that something which a dozen or so seminars attended by the world's leading experts on the topic had missed, the Rebbe picked up in a matter of seconds.

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2. The second thing which the Rebbe said, astounded me even more. During my explanation to the Rebbe I mentioned many numbers relating to the apparatus. The Rebbe chose two numbers: the output of the apparatus, and the speed of the two-phase flow within a certain part of the apparatus. The Rebbe said: "These two numbers do not correlate to one another. Either one, or both of them must be incorrect". Obviously, by this time I knew how carefully and seriously one should relate to the Rebbe's comments in these matters, as in all other matters. I returned home and requested that the team go over the calculations and theory again and again. In spite of all our investigations we could not find a mistake. We all knew, not only I, but the whole team, that if the Rebbe says that there is a mistake, then that must be the case. But where could it be? Only two years later, a new doctoral student who came to work with us found that within a certain calculation, one factor had been written incorrectly. The most complex calculations using the most advanced computer were of no help, because computers are helpless when fed with incorrect data.

Only after two years did we discover that the Rebbe had been right! We adjusted the theory, recalculated and obviously received a completely different solution, which we later found by empirical evidence correlated directly with the reality, according to the correction made by the Rebbe himself.

Again -- how did the Rebbe know? He did not use a computer, he did not even have a pen and paper, but he knew immediately that these two numbers were wrong.

Again – it was purely the vision of a Zaddik!! Beyond that, we are unable to understand or comment further.

There are many other instances and examples, known in Lubavitch circles and beyond, such as the amazing ideas which the renowned microbiologist Prof Green, who made Aliya to Israel from Minnesota, USA, received from the Rebbe. At the time, in addition to his work at St Paul's University, Minnesota, Prof Green was responsible for all the microbiological experimentation on the first American spacecraft to the moon. After this monumental work, a large team of microbiologists, under his guidance and management, produced a 40-volume report describing all aspects of microbiology in relation to sending a spacecraft to the moon. Prof Green visited the Rebbe, told him of the report, and the Rebbe asked Prof Green if he would be allowed to receive a copy, or if it was confidential and therefore illegal. Prof Green was surprised that the Rebbe would want to see a 40-volume report, but immediately acquiesced to the Rebbe's request.

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A little while later, at their next meeting, Prof Green was surprised to hear the Rebbe point out a large number of mistakes, including those of the sort: "In volume 25, page so-and-so, there is a contradiction with volume 38, page so-and-so".

It would be difficult to imagine that the Rebbe had sat up all night reading the report. It is well known that the Rebbe sits up at night, but he is totally occupied learning all aspects of the Torah, reading and answering the thousands of letters which he receives from all over the world, including letters requesting guidance and direction, to which thousands anxiously await his reply. There is not even the shadow of a doubt that the Rebbe did not sit up at night reading the thousands of pages of the report. So how did the Rebbe know?!

This demonstrates, yet again, that the Rebbe's ability to envision and to prophesy, is completely apart from normal human beings, and stems from the mysteries of the Torah.

The Existence of Diamonds and Precious Stones in the Zevulun Valley

The determination of the Rebbe that diamonds and precious stones exist in the Zevulun valley demands that a suitable framework be set up to quarry for these diamonds, and indeed such a framework is currently operated by the Shefa Yamim Corporation. Activities carried out by Shefa Yamim in accordance with the instructions of the Rebbe have already produced very interesting findings, and the discoveries of the geological experts of the company bear out, again and again, the spirit of the Rebbe's prophecy.

As a scientist, I wish to unequivocally state that the moment the Rebbe makes a determination, it becomes scientific fact.

Therefore, since the Rebbe openly stated that there are diamonds and precious stones in the Zevulun valley, it has been a scientific fact, which should be acted on.

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Summary

Over and above the Rebbe's scientific prophecies, there are obviously tens of thousands of examples of the Rebbe's prophecies in other fields.

I myself merited, in 5745, the spring of 1985, to hear him prophesy the collapse of world communism, and the disintegration of the Soviet Union, at the same time that the world press was speaking of increasing danger from the Soviet Union.

That same day the Rebbe requested that I phone Jewish acquaintances in Moscow, Leningrad and other places, and tell them, in the name of the Rebbe, that, within a few short years, communism would crumble and disappear and that the Jews would be free to choose whether to make Aliya to Israel, or to live freely as Jews in the Soviet Union.

Again, it is impossible for those who were familiar with, or lived in, the Soviet Union, who knew the strength of the regime, to imagine or even dream that this regime would come to an end, crumble and disappear. At most they might imagine that if the whole world declared a nuclear war against the Soviet Union, perhaps then communism would be defeated

And there are countless further examples...

I wish, once again, to express my firm and unequivocal opinion as a scientist, with the utmost confidence, not probable but absolute, that in keeping with the prophecy of the Rebbe, diamonds exist where the Rebbe specified, in the Zevulun valley, and we should persevere and make every effort to discover the treasure which awaits, and which definitely exists exactly according to the instructions, prophecy and blessing of the Rebbe, Melech HaMashiach.

I hereby give my consent that this opinion be included, or mentioned, in the prospectus of the Shefa Yamim Company (ATM) Ltd, to be published by the Company.

Prof. Yirmiyahu Branover

Date: _____ 2002