Torah Codes:

A Glimpse into the Infinite

Professor Robert M. Haralick
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Rabbi Matityahu Glazerson
The book contains scriptural passages and we request the reader to treat this book with due respect.

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Sing to Him,
Chant praises to Him,
Speak of all His wonders.¹
Seek His face continually.²

¹ 1 Chronicles 16:8
² Ibid. 16:11
Rabbi holding Torah, painted in 1964 by Yetta S. Haralick, mother of Robert Haralick
Thankyou to Ethel Gottlieb for help in editing the manuscript of this book.

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# Table of Contents

**Foreword**  
IX

**About The Authors**  
XII

**Chapter 1 - Introduction**  
1

**Chapter 2 - Equidistant Letter Sequences and Code Cylinders**  
4

**Chapter 3 - The Torah Code Hypothesis**  
9  
  Probability  
10

**Chapter 4 - The Experiment and Its Protocol**  
20  
  Experimental Protocol Variations  
23

**Chapter 5 - The McKay Experiments**  
29  
  Moby Dick Combined Assassination Experiment  
44  
  McKay’s War and Peace Chanukah Table  
46

**Chapter 6 - What The Critics Say**  
49  
  The Great Rabbis Experiment  
64  
  The Cities Experiment  
66  
  The Ingermanson Experiment  
68

**Chapter 7 - The Crown of the Torah: Torah Codes**  
70

**Chapter 8 - The World Trade Center: The Twin Towers**  
90  
  Spiritual Commentary on the Twin Towers Disaster  
100  
  The Emotional Responses in the Twin Towers Table  
104  
  Twin Towers, the End of Days, and Yishmael  
108  
  Twin Towers, Islam, and Bin Laden  
116

**Chapter 9 - Terror Attacks**  
130
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Qaeda</td>
<td>130</td>
</tr>
<tr>
<td>Taba Hilton</td>
<td>133</td>
</tr>
<tr>
<td>Beslan Massacre</td>
<td>139</td>
</tr>
<tr>
<td>Madrid Train Bombings</td>
<td>144</td>
</tr>
<tr>
<td><strong>Chapter 10 - The Philistines and The Palestinians</strong></td>
<td>150</td>
</tr>
<tr>
<td><strong>Chapter 11 - Snow White And The Madness of Truth</strong></td>
<td>158</td>
</tr>
<tr>
<td><strong>Chapter 12 - The US Election</strong></td>
<td>162</td>
</tr>
<tr>
<td><strong>Chapter 13 - Tsunami</strong></td>
<td>164</td>
</tr>
<tr>
<td><strong>Chapter 14 - Teshuvah, Maschiach And The End Of Days</strong></td>
<td>178</td>
</tr>
<tr>
<td><strong>Appendix 1 - The Hebrew Letters</strong></td>
<td>185</td>
</tr>
</tbody>
</table>
This book is about Jewish spirituality. It contains many Torah teachings particularly suitable for our times: teachings from the Torah, the Talmud, the Midrashim, and the Kabbalah. Our discussion is from the point of view of Torah Codes and gematria. Explaining Torah teachings with the aid of gematria has been a well-known longstanding tradition in Judaism. Our sages have told us that information derived from the Torah by means of equal letter skips is also in the same class as gematria. With the advent of the computer in the last fifty years, automated searches to find equidistant letter sequences became possible. More recently, this search has expanded into the statistical realm in order to help differentiate between equidistant letter sequence relationships that arise by chance and those that do not arise by chance. Those that do not arise by chance may be shown as Torah Code tables.

We also explain the standards for Torah Code tables. We clarify the protocols and statistics governing the kind of tables that constitute Torah Codes and those that give rise to tables that do not constitute Torah Codes. Those readers who are interested in the technical material will find chapters 3 and 4 very helpful in understanding the depth of the statistics. Those who are not interested in the technical material can skip those chapters and just read the Torah Code table sections. There they will find that we bring together a remarkable set of tables and explain their meaning through an interpretation of the Torah verses that constitute the table or by the Oral Tradition which teaches why certain terms are related.

There is a controversy regarding Torah Codes. The existence of codes in the Torah, the Five Books of Moses, about events that would take place thousands of years after the Torah was given on Mount Sinai is not consistent with a world view that takes the Torah to be a natural man written document. If it is not man written then, it either must have been written by an alien time traveler (for those who are science fiction oriented) or God (for those who are religious oriented). There are many people with world views that are inconsistent with either of these beliefs. When these people are confronted with evidence that is inconsistent with their world view or belief system they will feel a strong cognitive dissonance. The inconsistent evidence is then dismissed either by ignoring it or by rationalizing why it is not correct so that they may preserve their world view or belief system. This indeed has happened.

One of the most important elements in participating in a dialog on the Torah Code Controversy is clarity. We have to know what the Torah Code hypothesis is and what it is not. And we have to be able to separate any assumptions arising from our personal religious beliefs from the logic of the statistical debate. This is because the debate is not a religious debate. The Torah Code hypothesis is a hypothesis in the statistical domain about the Torah text that we have today. Its language is the language of probability and statistics.

The debate is over the different experiments that have been performed and whether or not the experimental results that have been observed can be explained in "natural terms" or not. One side of the debate maintains that the experiments are proper experiments and there is no natural explanation for the observed results. And hence the Torah Codes are real. The other side of the debate holds that there is indeed a natural explanation: simply that the experiments were either not proper a priori experiments or were experiments with flawed methodology and, therefore, the Torah Codes are not real.

3. Our orientation is strictly religious.
The politics of the debate has religious and secular elements opposed. Underlying the discussions are often strong emotions and this makes it more difficult to be logical and to be clear. And confusing the matter even more is the fact that the debate takes place in an environment in which there is a tabloid-like layer that is certainly orthogonal to the rigors of the statistical debate. This tabloid-like layer, due to popular books, from religious (Jewish and non-Jewish) and non religious people provide a variety of tables showing apparent remarkable closeness among historically or logically related key words. However, when these kinds of examples are not generated in accordance with a proper \textit{a priori} experimental protocol, they must be regarded as either meaningless or anecdotal. Proper a priori experimental protocol means that first the related key words are specified, and second a proper experiment is run which determines a probability that a randomly sampled text in a “specified monkey text” population would have a table as compact as the given table.

Further complicating the issue is that in this situation "chance" does not have a unique meaning. To estimate a probability requires that a control or monkey text population be specified. The control population can be specified as a set of randomized texts or a set of randomized pairing of key words, where randomized itself can have a variety of different possible meanings. The important point about the control population is that it is designed not to have very many significant events. Change the population and we change the probability. Likewise change the experimental protocol and the chance probability will change.

In this book we provide some tutorial information about the technical side of Torah Codes. We give a clear statement of the Torah Code hypothesis. We discuss the criteria by which a table can be judged: does it constitute a valid table or an invalid table. We devote a whole section to the argument against the Torah Codes and the parody tables purporting to illustrate encodings in texts such as \textit{War and Peace} and \textit{Moby Dick}.

We also develop a number of examples of Torah Code tables and discuss the interpretation of the content of the table in association with the place where the table occurs in the Torah. This is the inner layer, which consists of the Torah interpretations and teachings the tables have. These Torah teachings arise from the meaning of the Torah verses contained in the tables and the relationship between the historically logically related key words whose compact arrangements are in the tables. The teaching is always consistent with the Written Tradition, which is the Torah given on Mount Sinai and the Oral Tradition, which was given at the same time on Mount Sinai.

In most cases our tables are shown in a context of Torah teachings. Some of the tables arise from proper \textit{a priori} experiments. These tables will have associated with them the probabilities that they arise by chance in accordance with a given experimental protocol. Other tables are non \textit{a priori} developments of these tables and we associated no probabilities with them. They however support the Torah discussion associated with the table. We also provide some tables that may be either not \textit{a priori} or not statistically significant. They are furnished solely because they support the interpretation of the Torah verses that they contain.

As of this writing there are thousands of statistically significant tables developed by Torah Code researchers. Undoubtedly, these tables should be collected together and put on a web site with suitable documentation. But for this book, which of these tables should be collected together? This was a hard question. We decided to include tables that themselves speak about the existence of Torah Codes. We
chose to include tables that tell about significant current events, such as the Twin Towers, terror attacks, the Palestinians, the US election, and the tsunami disaster. Because we believe we are indeed entering the period of time the Torah tells us is called the “end of days,” we included tables about *Teshuvah*, *Moshiach*, and the End of Days.

With respect to interpretation, we want to make mention of the various so-called tables involving Yeshuah which is the Hebrew name by which the Christian saviour is called. These so-called tables are discussed by Christian missionaries. Because this has happened one may conclude: If the Christians are employing tables in their missionizing messages, then clearly it is not suitable for the Jewish community. However, we contend that such a conclusion is too hasty and fallacious. Many of their tables do not constitute tables either by the statistical standards we use or because their Hebrew is not correct. Any probabilities associated with those tables are incorrectly calculated, based on incorrect assumptions, or do not mean what the author claims them to mean. Those that do constitute tables do have interpretations that are completely consistent with the Oral and Written Tradition. Where Yeshuah is encoded, the interpretation according to the Written and Oral Tradition will be with respect to the Yeshuah who was the leader who came after Moses or the various Yeshuahs mentioned twenty six times in the books of Ezra and Nechemiah, the prophets who guided the building of the Second Temple after the Babylonian exile. These Yeshuahs were important priests and Levites during the Second Temple period. At any rate, we will not be discussing any Yeshuah table in this book.
About the Authors

Eliyahu Rips came to Israel in 1972 from Riga, Latvia, where he was already recognized as an outstanding mathematician. In 1975 he completed his PhD in mathematics at Hebrew University. His topic was the dimensional sub-group problem. Profess Rips’ dissertation was recognized as being of international interest and he was awarded the prestigious Aharon Karzir Prize. He is now an Associate Professor of Mathematics at Hebrew University.

In the early 1980’s, Professor Rips began working with Doron Witztum on Torah Codes. Their studies contributed a systematic computer analysis to what had been previously a curiosity. They put their experimental results through a complete statistical analysis and it was published in 1994. It was this article that started the academic controversy over Torah Codes.

Since 1994 Professor Rips has lectured all over Israel on Torah Codes and has developed hundreds of tables on all kinds of topics. In 1998 he met Professor Haralick who was just beginning his serious statistical study of Torah Codes.

Robert Haralick holds a distinguished professorship position in Computer Science at the City University of New York. His area of research is pattern recognition, image processing, image analysis, computer vision, and data mining. He has published over 550 archival articles, book chapters, and conference papers in the scientific literature. He is a previous president of the International Association for Pattern Recognition, is a Fellow of the Institute for Electrical and Electronic Engineers and a Fellow of the International Association for Pattern Recognition. Since 1990, he has been listed in every edition of Who’s Who in America.

Professor Haralick first learned about Torah Codes in 1992 soon after he met Rabbi Glazerson in one of those chance but no-coincidence meetings in Jerusalem.

In 1995 Professor Haralick and Rabbi Glazerson authored the book Torah Codes and Israel Today. This is the first book in which the remarkable connection between the Torah verses and the content of the Torah Code table was explored. In 1997 Professor Haralick begin to seriously study the statistical properties of the Torah Codes. The appendix contains a technical description of some recent Torah Code experiments that Professor Haralick completed. These experiments provide solid statistical evidence for the existence of Torah Codes and demolish the critic’s arguments that codes with similar statistical properties can be found in any book.

Rabbi Glazerson is an internationally known lecturer and teacher. He has taught in Yeshivah Ohr Samayach in Jerusalem and at Nevei Yerushalayim, a girls seminary in Jerusalem. He was the Rosh Yeshivah at Yeshivah Torat Emet in Johannesburg South Africa. He has been involved in bringing many Jewish youngsters back to their Jewish roots. He has authored 25 books in Hebrew, most of which have been translated into Russian, French, and English. For fifteen years, Rabbi Glazerson wrote a weekly column for Yom HaShishi in which he related words associated with current events to other Hebrew

words having the same *gematria*. It is by way of *gematria* that Rabbi Glazerson teaches Torah. After Rabbi Glazerson and Professor Haralick began to work on Torah Codes, Rabbi Glazerson began teaching Torah through Torah Codes as well as *gematria*. Rabbi Glazerson is also a musician and composer. He composed a tune to *Shalom Aleichem* that has become, even in his day, so popular that people already regard it as a folk tune.
Chapter 1
Introduction

This is your wisdom and your understanding in the eyes of the nations that when they hear all these statutes they shall say:

“Surely a wise and understanding nation is this great nation.”

For what great nation is there that has God so near unto them as the Lord our God is whenever we call upon Him? And what great nation is there that has statutes and ordinances so righteous as all this law which I set before you this day.

The plain meaning of this verse is that there are many commandments (the statutes) that seemingly have no logical explanation for keeping them, other than this is what God has told us to do as written in the Torah. And because they have no inherent understandable reason, the Torah says that the Israelites should not think that if they keep them the nations of the world will laugh at them. On the contrary, the Torah tells the Israelites that it is precisely because they keep even these commandments without understanding the reason, that the nations of the world will come to know how wise, great and righteous is this nation Israel.

Rabbi Sorotzkin writes,

This sounds odd. Is this a reason to keep God’s laws -- so that we should appear wise and discerning in the eyes of the other nations? [Rather] The intent of the verse is as follows: aside from our actual fulfillment of the commandments, which is good in itself, God’s Name will be sanctified in the world. For the nations will say,

“Surely a wise and understanding nation is this great nation.”

Some of them will even become proselytes. By your scrupulous mitzvah observance, God’s Name will be sanctified in the eyes of the nations.

Rabbeinu Bachya writes,

When the nations observe that by performing the commandments which do make sense to us the Jewish people have achieved a position of great prominence and success in the world, they reason that there must also be hidden values to the statutes even though such meanings defy our logic. They realize that the Torah does not contain any meaningless

6. We would maintain that this is the deepest of all reasons, but such an understanding is outside the scope of secular understanding or acceptance.
Torah Codes: A Glimpse Into The Infinite

laws, it is not something empty, devoid of meaning and value. This is why the Torah quotes the nations as saying:

    This is your wisdom and your understanding in the eyes of the nations

We read in the Talmud,

Rabbi Samuel Ben Nahmani said in Rabbi Johanan’s name: How do we know that it is one’s duty to calculate the cycles and planetary courses? Because it is written:

    This is your wisdom and your understanding in the eyes of the nations.

What wisdom and understanding in the eyes of the nations? Say, that it is the science of cycles and planets.  

And to all these plain meanings, there is yet a deeper meaning. In the book הקול התנור, The Voice of the Turtle Dove, the students of the Vilna Gaon write in the name of their teacher concerning the verse:

    This is your wisdom and your understanding in the eyes of the nations.

The intention cannot be relative to the hidden part of the Torah for they will never understand the secret depths of the Torah. So how can it be that the nations of the world will recognize the wisdom of Israel? There is no other possible meaning to this verse. Only in this way, after the nations will see the wisdom of Israel in the natural way in great abundance and know that it is taken from the depth of its secrets of the Torah. By this it will be fulfilled.

This will occur in the near future as the prophet Zephaniah says,

    For then will I turn to the nations a pure language that they may all call upon the name of the Lord to serve Him with one consent.

Pure language means Hebrew. Torah Codes are only in the Hebrew language. They cannot be found in English, Greek, Latin, or any other language. And they cannot be found in any other text other than the Torah.

Rabbi Samson Raphael Hirsch writes concerning the phrase in the eyes of the nations that

... your science and art of living will form your distinctive feature in the eyes of the world.

10. Shabbat 75a.
From the science of calculating the planetary courses, which God put into existence, we may generalize to the science of statistics as applied to Torah, something that God also put into existence. The Torah Codes are a natural instance of the science of statistics as applied to Torah. We find through the Torah Codes that the Torah is a statistically most unusual book, different from any book written by man.

Sforno explains the verse

This is your wisdom and your understanding in the eyes of the nations

that with it you will be able to answer the non-believers with reasoned proof.¹⁴

Part of this reasoned proof is through the Torah Codes. We invite the reader to take delight in the statistically amazing Torah Code tables and the associated Torah teachings that we present in this book.

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The first concept needed to understand Torah Codes is the concept of an *Equidistant Letter Sequence*. An equidistant letter sequence (ELS) is a sequence of letters of the text formed by starting with the first letter of the ELS and then skipping the same number of text letters (not counting spaces or punctuation) between successive letters of the ELS. An ELS is characterized by its beginning character position in the text, the skip interval of the ELS and the number of letters in the ELS.

Consider the following sentence as a simple text example.

*This is the form we use for finding codes and I added letters precisely placed to form a longer example.*

The f of the word *form* is the 10th letter in the sentence. The 10th letter of the sentence is the beginning position of an ELS of the word *food*. Count 10 letters from the f of the word *form* and we arrive at the o of the word *for*. Count 10 letters from the o of the word *for* and we arrive at the o of the word *codes*. Count 10 letters from the o of the word *codes* and we arrive at the second d of the word *added*. Each ELS is characterized by a triple of its beginning position, its skip interval, and its number of letters. The ELS for the key word *food* is then:

- beginning position = 10
- skip interval = 10
- number of letters = 4

In this sentence this is the only ELS of the key word *food*. There are ELSs of other key words. For example the key word *order* has one ELS in this sentence. It is characterized by:

- beginning position = 11
- skip interval = 10
- number of letters = 5

Equidistant letter sequences with skips greater than 10 occur in real texts in any language with roughly the same frequency as they would be expected to be found in random letter permuted texts. It is therefore no surprise to find ELSs in texts. A Torah Code is not an ELS.

The second Torah Code concept we need to discuss is the code cylinder. Spiral the text, without spaces or punctuation marks, around a cylinder with a specified number of columns, called the cylinder size. This cylinder is called the *Code Cylinder*. If we cut the code cylinder vertically and open it up, it appears as a table. Using a code cylinder of 10 columns and vertically cutting the cylinder after the tenth column, we obtain a table as shown in Figure 1.

Notice that the ELSs for the key word *food* and the key word *order* appear in this table as vertical ELSs. These are not the only ELSs in the table. We also see ELSs for the key words *Gary, sine, and reel*. ELSs can also appear in reversed order. Continuing on with our example sentence we see that it has ELSs for
Torah Codes: A Glimpse Into The Infinite

the key words tile and roses that appear in reverse order. This is illustrated in Figure 2.

Figure 1 illustrates a simple text sentence wrapped around a cylinder of 10 columns and vertically split after the 10th column to form a table in which are shown ELSs for the key words: order, reel, sine, Gary, and food.

Figure 2 illustrates the same table as Figure 1 with the ELSs tile and roses which occur in reversed order.

The examples of Figure 1 and Figure 2 show that on appropriately chosen cylinder sizes, ELSs can appear in a simple straight line geometry. The straight line geometry means that each letter of the ELS has the same row skip to its successive letter and each letter of the ELS has the same column skip to its successive letter. On a cylinder of 11 columns, Figure 3 illustrates an ELS of the key word slap having the following characterization:

- beginning position = 48
- skip interval = 11
- number of letters = 4
Torah Codes: A Glimpse Into The Infinite

On the cylinder of 11 columns, this ELS appears with the straight line geometry. However, on the cylinder of 10 columns vertically cut after the tenth position it does not appear with a straight line geometry. It is wrapped around as shown in Figure 4. However, if the 10 column cylinder is cut after column 2, then this ELS of the key word SLAP does appear in a straight line geometry as shown in Figure 5.

Figure 3 illustrates the same sample text sentences wrapped around a cylinder of 11 columns and vertically cut after the 11th column. On this cylinder an ELS of the key word SLAP can be seen with the straight line geometry.

Figure 4 illustrates the same sample text sentence wrapped around a cylinder of 10 columns and vertically cut after the 10th column. On this cylinder the ELS of the key word SLAP does not have the straight line geometry.

An ELS of skip 40 on a cylinder of 40 columns will appear vertically. An ELS of skip 40 on a cylinder of 20 columns will appear vertically, every other row. If there is no wraparound, an ELS of skip 41 on a cylinder of 40 columns will appear diagonally, successive letters of the ELS appearing one row down and one column over.
Figure 5 illustrates an ELS of the key word SLAP in a straight line geometry on a cylinder of 10 columns vertically cut after column 2.

When the skip of an ELS is close to being an integer multiple of the number of columns of the code cylinder we say that the ELS resonates with the code cylinder. Such an ELS will appear vertically or diagonally on a code cylinder vertically cut at an appropriate position. All the ELSs shown so far are of this type.

An ELS of skip 2 will appear in a horizontal arrangement, every other letter. Small skip ELSs, skip intervals of between 1 to 10, appear horizontally on all code cylinders with enough columns to contain the span of the ELS. Such ELSs are called universal resonators because they will resonate with any cylinder size. For our example sentence, as shown in Figure 6, the key word set and doom are ELS universal resonators with skip interval 2.

Figure 6 illustrates examples of ELSs of the key words SET (backwards) and DOOM whose small skip makes them universal resonators on any size code cylinder.
It is no surprise that ELSs of words can be found in texts of any language and that on any given cylinder size, there will be windows where there will be a number of ELSs grouped together. Given a set of words, it is not surprising that for a long enough text, there will be ELSs of those words that form in a compact arrangement on some window of some cylinder. Such tables do not necessarily constitute Torah Codes. None of the tables that has been shown so far constitutes a Torah Code.
Chapter 3
The Torah Code Hypothesis

To understand what a Torah Code is we must state one form of the Torah Code hypothesis. The form of the hypothesis we use here is the form associated with the most easily measureable aspect of Torah Codes. This form of the Torah Code hypothesis is:

(1) When using the 5 books of the Torah Hebrew text as it exists today
(2) with probability higher than expected by chance,
(3) words that are logically/historically or conceptually related
(4) tend to have their ELSs in a more relatively compact arrangement on a code cylinder
(5) whose size resonates with a low rank skip ELS of one or more of the conceptually related words
(6) and are redundantly encoded.

There are a number of immediate implications from this statement of the Torah Code hypothesis. The first is that the codes are in the Torah Hebrew text as it exists today. The most widely used text is known as the “Koren text.” There are some that claim that the text today, whether it be the text accepted as the Ashkenazi, Sephardic, or Yeminite text differs from the text that was given on Mount Sinai because there have been copying errors. And they continue to argue that the copying errors would have destroyed a good part of what had been encoded. Such an argument assumes that God put the perfect code in the text of Mount Sinai. This is an assumption. Since we do find codes in the Koren text of today, if we assume transmission errors then we may also assume that God put an imperfect code in the text of Mount Sinai and that after any alleged copying errors, the imperfect code becomes perfect. In other words, the copying error argument is not logically valid. To come to the conclusion it desires, it makes one set of assumptions. With another kind of assumption the conclusion cannot be inferred even if we were to accept the hypothesis that there were copying errors.

The second implication is that the historical events in the codes are events that happened thousands of years after the public giving of the Torah on Mount Sinai. Obviously to know that kind future is not something that is a natural ability of humans. This creates a problem for those who hold the naturalist hypothesis: that all that happens in the world happens by cause and effect following the laws of physics, chemistry, quantum mechanics, etc. People who hold the naturalist hypothesis do not believe in any God and they either have to take one of two consistent positions: the Torah text does have codes of future events and this code was put there by time travelers; or the Torah text was written by man and contains no Torah Codes about future events. Those who take this second consistent position must search for and find or invent faults to discount any evidence supporting the existence of Torah Codes. They are the Torah Code critics. Because of their emotional commitment to the naturalist hypothesis, they have an agenda
Torah Codes: A Glimpse Into The Infinite

could be clouded by their inability to give up the naturalist hypothesis.¹⁵

Now we discuss the technical part of the Torah code hypothesis. The hypothesis states that with probability higher than expected by chance, key words of logically/historically related events tend to have their ELSs in a more relatively compact arrangement on a cylinder whose size resonates with one or more of the low rank skip ELSs of the key words and whose key words are redundantly encoded. The rest of this chapter is devoted to explaining what the technical part means. Those readers who are not technically oriented can move on to the next chapter.

Probability

The only tool we have at present to determine whether there is something unusual going on in the Torah text is the probability of finding as good or a more compact table in an ordinary text than that found in the Torah text. How do we determine such a probability? We perform an experiment that estimates the fraction of ordinary texts (here called “monkey texts”) having relative compactness value better than or equal to the compactness value of the table found in the Torah text. This fraction is a probability and is called the “p-value” of the experiment. If this probability is sufficiently small, then we decide that the table we have is encoded. The meaning of this protocol is simple. If the kind of table we find in the Torah text is expected to be found in an ordinary text, then we are not going to be surprised to find it also in the Torah text. If we are not surprised then we will not think that the table is encoded.

This kind of argument can be made a bit more technically. If a given table can be shown to be likely to happen by chance, then there is a chance explanation for it. A chance explanation is one that says: "What you found is likely to have been found if monkeys typed the text. Therefore, if you find such a table, there is no great delight in sharing with others because people will say that 'I also could find that one in a monkey's text.' And if a table is put there deliberately by the author of the text, the author would certainly not put it there as a table that has a chance explanation precisely because in that case we could not distinguish between one put there deliberately and one that occurs by chance.

The probability tool is, as we have stated, the only tool we currently have. But it is not without its problems. Suppose that the encoder encodes a set of key words as ELSs in the text. To make sure that the Torah Code researcher might have the possibility of finding the encoded key words as ELSs, the encoder adopts a standard: that an experiment according to a given protocol that estimates the probability that the encoding would be a chance event must yield a probability that is less than .02, the significance level standard that we use in this book. The Torah Code researcher is at a disadvantage in two ways: first, the Torah Code researcher does not know the experimental protocol standard that the encoder uses. Second, the Torah Code researcher also does not know the significance level standard that the encoder is using.

The Torah Code researcher, nevertheless, hypothesizes an experimental protocol and significance level standard. We can be almost sure that whatever is hypothesized is probably not quite right. There are many reasonable alternative hypotheses, most of which have surely not been explored. Different researchers may hypothesize different experimental protocols and use different standards. Even the same researcher

¹⁵. Note that the same argument cannot be applied to the religiously oriented person. The faith and belief of a religious person in no way depends on the existence of Torah Codes. The existence of Torah Codes or the non-existence of Torah Codes is equally consistent with their world perspective.
might sometimes use one protocol and another time use a different protocol. This gives rise to a potential situation where two different Torah Code researchers using different experimental protocols, do experiments that have different p-values, different chance probabilities, that a given set of key words are encoded as ELSs in a compact formation. Indeed by the choices of one Torah Code researcher, the given set of key words might be decided to be encoded and by the choices of another Torah Code researcher, the given set of key words might be decided to be not encoded. At this time we have no methodology to resolve this issue.

The tables that have a very small probability of happening by chance, by some experimental protocol, are not likely to be found in a monkey's text. And we shall see now that this makes it more likely that a monkey did not type the text. Let us go into this situation as the reasonable skeptic. The reasonable skeptic says there are two possibilities: Either a monkey “M” typed the text (here monkey means man, no comments on this please) or a monkey did not type the text, meaning it was put in by design, “D”. The unbiased skeptic says both are equally likely. So, before seeing the evidence of the codes, both have a probability of .5; P(M) = .5 and P(D) = .5.

Now we let the skeptic see the evidence which consists of one experiment in which the probability of an as compact a table occurring in a monkey's text is .001, one chance out of a thousand. Hence the p-value of the experiment is the probability of the evidence given that it was observed in a monkey text: P(E | M) = .001. Given the evidence, E, what is the probability that the table was put in by design? That is, what is the probability of design D given the evidence E: what is P(D | E)? From the definitions of conditional probability, we always have,

\[
P(E | D)P(D) = P(E | D)P(D)
\]

\[
P(D | E) = \frac{P(E | D)P(D)}{P(E | M)P(M) + P(E | D)P(D)}
\]

And when P(D) = P(M) = .5 and P(E | M) = .001, then

\[
P(E | D)
\]

\[
P(D | E) = \frac{P(E | D)}{.001 + P(E | D)}
\]

So if P(E | D), the probability of observing the evidence E given that the table was put by design, were .1 then P(D | E) would be .99, a very high probability. On the other hand if P(E | M) were 1., meaning that it is certain that the result would be found in a monkey's text, then

\[
P(E | D)
\]

\[
P(D | E) = \frac{P(E | D)}{1. + P(E | D)}
\]

Since the highest value of P(E | D) is 1, and it is the highest value of P(E | D) that makes P(D | E) the largest, then in this case P(D | E) < .5, which implies that P(M | E) > .5. If it is certain that as good a table as the given table can be found in a monkey's text, then the probability that a monkey wrote the text would be greater than .5.
In general, the smaller $P(E \mid M)$ is, the larger $P(D \mid E)$ will be. $P(E \mid M)$ is precisely the probability that under the Null Hypothesis\(^{16}\) of no Torah code effect, a table as compact as the table found in Torah text can be found in a monkey text. This is the p-value of the experiment. Therefore, small p-values imply large value for the probability $P(D \mid E)$, the probability that the given table was put in by design given its observed compactness.

Since we do not have a model for $P(E \mid D)$ we assume that each value of $P(E \mid D)$ is equally likely. This is called “the equal probability of ignorance premise.” And in this case, we have (leaving out the technical details) that the expected value of $P(D \mid E)$ is

$$1 - P(E \mid M) \log(1 + P(E \mid M)/P(E \mid M))$$

From this formula, we can see how the expected value of the probability that the table was put in by

<table>
<thead>
<tr>
<th>$P(E \mid M)$</th>
<th>Expected value of $P(D \mid E)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>.001</td>
<td>.9931</td>
</tr>
<tr>
<td>.002</td>
<td>.9876</td>
</tr>
<tr>
<td>.003</td>
<td>.9826</td>
</tr>
<tr>
<td>.004</td>
<td>.9779</td>
</tr>
<tr>
<td>.005</td>
<td>.9735</td>
</tr>
<tr>
<td>.006</td>
<td>.9693</td>
</tr>
<tr>
<td>.007</td>
<td>.9652</td>
</tr>
<tr>
<td>.008</td>
<td>.9613</td>
</tr>
<tr>
<td>.009</td>
<td>.9575</td>
</tr>
<tr>
<td>.01</td>
<td>.9538</td>
</tr>
<tr>
<td>.02</td>
<td>.9214</td>
</tr>
<tr>
<td>.0277</td>
<td>.899902</td>
</tr>
<tr>
<td>.03</td>
<td>.8939</td>
</tr>
</tbody>
</table>

Table 1 shows the expected value of $P(D \mid E)$ as a function of $P(E \mid M)$, the p-value of the experiment testing the Null Hypothesis of no Torah Code effect, assuming that the unknown value for $P(E \mid D)$ is uniformly distributed over the interval $[0,1]$. The assumption that $P(E \mid D)$ is uniformly distributed over the interval $[0,1]$ is like a worst case assumption.

\(^{16}\)In formal hypothesis testing, the Null Hypothesis is the hypothesis that there is no effect. The statistical hypothesis test is a testing of no effect against the alternative that there is an effect.
design given the evidence varies as a function of the P(E | M), the p-value of the experiment. The table basically shows that if we desire to be at least 90% sure that the table is by design, we must have an experimental p-value of smaller than .0277. To be at least 95% sure that the given table is by design, we must have an experimental p-value of smaller than .01. To be at least 99% sure that the given table is by design, we must have an experimental p-value of smaller than .001.

Our standard for tables in this book is 2%. For a table to be statistically significant, its p-value must be less than or equal to 2%. In this case, the expected value of the conditional probability of design given the evidence must be greater than .9214.

To discuss probabilities in the context of a more complex experiment, we must understand what monkey text means, we must understand how to measure the compactness value of any table and we must understand how to determine a probability. To make our discussion simple, we take compactness value of a table to be the number of letters in the table. This is its area and is computed as the number of rows of the table times the number of columns of the table. We take monkey text to be a statistically comparable text in which it is known that there are only chance arrangements of ELSs. In these texts there are no encodings.

Now we can clarify how the probability P(E | M) can be estimated. To do this we will construct a thought experiment based on key word pairs. Suppose that we read all newspapers in Europe and the American Continent and whenever we find three newspapers that have stories about the same historical event, where the stories have in common two main key words that describe the event, we put the pair of key words in a list. To be concrete, when we finish, suppose the list has L pairs of words.

Now each pair of key words in the list can be used in an experiment with a reasonable protocol (here it is not important to describe what reasonable protocol means). First, we find the most compact table having ELSs of each of the key words in the pair in the Torah text and determine the area (compactness) of the table. Then in each of the L trials of the experiment we successively select the next key word pair and randomly sample a monkey text. We find the most compact table having ELSs of each of the key words of the pair in the monkey text. The Torah Code hypothesis states that if we were to make a plot of the area compactness of the best table in the Torah text against the frequency with which that table compactness value arises among the L key word pairs in the list we would find the distribution of table compactnesses in the Torah text to be shifted toward the smaller area compactnesses with respect to the comparable distribution in the monkey texts. This is shown in Figure 1 for our hypothetical experiment of L=10,000 key word pairs.

The same information can be shown in a cumulative frequency plot which for each compactness value A shows the number of key word pairs whose compactness value is less than or equal to A. This is shown in Figure 2 where the red curve is for the monkey text and the blue curve is for the Torah text.

From this plot it is easy to see that there are about 300 key word pairs whose compactness value is less than or equal to 1000 in a monkey text and about 4000 key word pairs whose compactness value is less than or equal to 1000 in the Torah text. This means there are about 6000 key word pairs whose compactness value is greater than 1000 in the Torah text. Hence for a compactness value of about 1000, there are 300 key word pairs whose compactness value in the monkey text is better than the compactness
Torah Codes: A Glimpse Into The Infinite

value in the Torah text.

Figure 1 shows a plot of the number of observed key word pairs whose best table has the given compactness for the Torah text and for the monkey text.

We can say the same thing directly in terms of probability. Suppose we were to sample a monkey text at random and sample a keyword pair at random. Let A denote the area of the best table in the monkey text. Then Prob(A | M) is the probability with which we observe a best table area A on a random monkey text for a random key word pair. Likewise, Prob(A | Torah text) is the probability with which we observe a best table area A in the Torah text for a randomly sampled key word pair.

Let $A_0$ be some relatively small compactness value. Then the Torah Code hypothesis asserts,

$$\text{Prob}(A | \text{Monkey text}) < \text{Prob}(A | \text{Torah text}) \text{ when } A < A_0$$

This probability statement is precisely our first statement of the Torah Code hypothesis,

With probability higher than expected by chance key words of logically/historically related events tend to have their ELSs in a more relatively compact arrangement.

Here $\text{Prob}(A | \text{Monkey Text})$ is the probability expected by chance and $A_0$ is about 1000.
Figure 2 shows a cumulative frequency plot of the number of observed key word pairs having a compactness value less than or equal to the value on the x-axis for a monkey text and the Torah text.

In order to statistically test this Torah Code hypothesis, we actually test the hypothesis that there is no Torah Code effect (the Null Hypothesis) against the alternative hypothesis that key words of logically/historically related events tend to have their ELSs in a more relatively compact arrangement. The Null Hypothesis essentially states that the Torah text is just an ordinary text and for the purposes of the test it can be considered as one of the texts in the monkey text population. Hence, for any compactness value A, if the Null Hypothesis is true we should find that

$$\text{Prob}(A \mid \text{Monkey text}) = \text{Prob}(A \mid \text{Torah text})$$

To understand how this hypothesis testing works, let us sample a text from the monkey text population and let us sample a key word pair from the list. Let the best table in the monkey text have area A. We estimate the fraction f of monkey texts whose best table for the sampled key word pair has area smaller than or equal to A. We do this by sampling a large number N of monkey texts and determine for each the compactness of the best table determined by the given key word pair. We count the number K of monkey texts whose best table compactness is less than or equal to A. The population fraction f is then estimated by K/N. This fraction is called the p-value. It is a logical tautology that in the monkey text population, the probability that we will observe a fraction f or smaller is f. That is, \(\text{Prob}(\text{p-value} < f) = f\). This corresponds to the blue straight line in the graph of Figure 3.
Figure 3 shows the plot of the relative frequency with which we observe p-values in the Torah text and a monkey text. The monkey text gives rise to the diagonal line. The Torah text gives rise to the curve above it.

Next, we repeat what we have just done with the Torah text instead of a monkey text. We successively select each key word pair from the key word pair list. For the selected key word pair, let the best table in the Torah text have area A. Then we determine the fraction f of monkey texts whose best table for the sampled key word pair has area smaller than or equal to A. Recall that this fraction is called the p-value. Since there are L key word pairs in the key word pair list, we observe L different p-values, p_1, p_2,...,p_L. Let us determine the relative frequency with which we observe a p-value less than a value f. This relative frequency is a probability and we denote it by Prob(f).

\[
\text{Prob}(f) = \frac{\#\{n \mid p_n < f\}}{L}
\]

The Torah Code hypothesis states that

*For a fraction f small enough, the probability is greater than f that historically/logically related key words would have ELSs that form tables with p-values smaller than f.*
This is the verbal equivalent to \( \text{Prob}(f) > f \) when \( f < f_0 \).

For our hypothetical experiment whose results yielded the graph shown in Figure 1, in Figure 3 we show the corresponding plot of \( f \) versus \( \text{Prob}(f) \) in the red curve. Here we can see that for each value of \( f < 1 \), it is indeed the case that \( \text{Prob}(f) > f \), since the red curve is above the blue line for all \( f < 1 \).

Another way of understanding this is to fix a compactness \( A \) and randomly select a key word pair having compactness \( A \) in the Torah text. Suppose that the fraction of monkey texts having compactness \( A \) or less for this key word pair is \( f \). That is, the p-value is \( f \). Then if the Torah text were an indistinguishable text in the monkey text population, the fraction of key word pairs having p-value \( f \) or less would be \( f \). And this is the Null Hypothesis. It is tested against the alternative that the fraction of key word pairs having p-value \( f \) or less is greater than \( f \).

The next part of the Torah Code hypothesis states that the code cylinder has a size that resonates with one or more of the low rank skip ELSs of the key words. From our definition of resonates, we know that at least one of the key words must have an ELS with a skip that is close to an integer multiple of the cylinder size. Furthermore, one of the ELSs that has a skip that is close to an integer multiple of the cylinder size must be a skip that has low rank. The table of Figure 10 illustrates how distinct skip rank is computed. There are 9 ELSs, two of them have skip 2 and two of them have skip 41. The distinct skip rank of each ELS is shown in the right column of the table.

The skip rank condition states that of all the ELSs of the key word associated with the ELS that resonates with the code cylinder size, the number of distinct skip ELSs smaller than or equal to its skip must be small. Small here means less than say 10.

The Torah Code critics have shown many examples of tables from texts that are known to have no encodings. The tables appear to be visually compact but they may not satisfy the small distinct skip rank condition or the small p-value significance criterion. An example of one such table is the one in Figure 5 that appears on the web site of Professor Brendan McKay, cs.anu.edu.au/~bdm/dilugim.

Physicist David Thomas wrote an article in the Nov/Dec 1997 Skeptical Inquirer illustrating a table found for the key words: Hitler and Nazi in an English text of Book 1 from War and Peace. In this table too, the distinct skip rank of the ELS for Nazi is 46 and the distinct skip rank of Hitler is 1. The code cylinder size is dominated by the Nazi ELS whose distinct skip rank is too high. The probability that a table as compact or better would be found in a monkey text of the random ELS placement population (to be discussed in the next section) is about .62. (See Figure 6.) The table is just as expected to be found by
chance. It is not interesting and does not qualify to be called a code table.

<table>
<thead>
<tr>
<th>ELS Skip Value</th>
<th>ELS Skip Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>41</td>
<td>4</td>
</tr>
<tr>
<td>41</td>
<td>4</td>
</tr>
<tr>
<td>65</td>
<td>5</td>
</tr>
<tr>
<td>76</td>
<td>6</td>
</tr>
<tr>
<td>95</td>
<td>7</td>
</tr>
</tbody>
</table>

Figure 4 illustrates the concept of distinct ELS skip rank.

Figure 5 illustrates a table from the text of *Moby Dick* in which the ELS for IGANDI has skip rank around 200 and is therefore not an instance of a Torah Code.
Figure 6 illustrates a table of the ELSs of the key words HITLER and NAZI from the text War and Peace. This meeting although it looks compact is not. Its probability of occurring by chance is on the order of .62.
The purpose of the Torah Code experiment is to determine the degree to which the ELSs of a given group of a priori key words are positioned in a chance arrangement in the Torah text. This probability is estimated as the fraction of texts in a monkey text population that can produce better or equal tables to the table produced by the Torah text. In this section we describe in greater detail what an experiment entails.

A formal experiment is described by the experimental protocol. For Torah Code experiments, this protocol has seven parts:

1. A priori key word sets
2. Range of ELS skip search
3. Code Cylinder Size Search
4. Text population
5. Compactness measure
6. Hypothesis test
7. Statistical Analysis Methodology

We now discuss each in turn. The first part of the protocol is the set of key words that specify which ELSs to search for. This set of key words must be selected in an a priori manner. The term a priori means that before any kind of looking for or searching for ELSs is done, the key words are specified.

To give a little insight regarding the meaning of a priori, let us consider the situation where a person is standing at the corner and watching cars going by in a region where each license plate is a seven digit number. Now the person states that one of the next 100 cars that goes by will have a license plate number of 4867192. This is an a priori specification. Given that the license plate numbers on the cars going by are a simple independent random sampling of license plate numbers the probability that among the next 100 license plate numbers that pass by, one will be 4867192 is $100/10,000,000 = 1/100,000$. So with an a priori specification of the event and with a simple independent random sampling, the probability that the specified event will happen can be computed. Should the event happen we would say we have observed a rare unusual event. The probabilities do not tell us the meaning of why the event happened, only that its happening is unusual.

If the specification of the event is not a priori then the simple way in which we computed the probability that the event would happen is just not correct. For example, suppose our person has a friend standing three blocks away and sees a car with license plate 4867192 passing by heading toward the corner where our person is standing and the friend calls to let him know that license plate 486192 just passed by and is heading toward him. Then when our person announces that among the next 100 cars that pass by, one will have license plate 4867192 we cannot compute it the same way we did for the a priori event. Now the probability that the car with license plate 4867192 will pass by our person depends on the probability that a car three blocks away will continue on the street without turning for the next three blocks. This probability is perhaps 85% so should we observe the specified event, we will not be surprised.
Torah Codes: A Glimpse Into The Infinite

The second part of the protocol specifies how the minimum and maximum skip for ELSs of each key word are determined. Usually the minimum skip for ELSs of each key word will be identical, either set to 1 or to 2. Setting the minimum skip to 1 permits the usage of text words or words formed by substrings of text words.

There is a reason why each key word should have an independently chosen maximum. The reason is that some key words might have a small number of characters or characters that commonly occur. Other key words might have a larger number of characters or characters that more seldomly occur. If the maximum skip in the search for ELSs of key words were to be set identically, then the key words that have a small number of characters or characters that commonly occur would have a large number of ELSs. And the key words that have a large number of characters or characters that more seldomly occur would have a small number of ELSs. Therefore, to give each key word’s ELSs the same chance to participate in compact formations, we set the maximum skip for the search so that the expected number of ELSs that the search would produce if the search were done in a randomly letter permuted text is identical. The Witztum, Rips, and Rosenberg (WRR) “great rabbis experiment” established a protocol that the expected number of ELSs should be set to about 10.

The third part of the protocol specifies how the cylinder sizes are searched over. Here there are a large number of possible variations. Recall that the Torah Code hypothesis states that on the table there must be at least one low rank skip that resonates with the code cylinder size on which the table is situated. Setting the expected number of ELSs to about 10 assures that only ELSs of low distinct skip rank will be considered for the table. The Torah Code hypothesis states that at least one ELS of the table must resonate with the code cylinder size. For the ELS to resonate with the cylinder size, the skip of the ELS must be a near integer multiple of the cylinder size. The WRR protocol searched over all groupings of ELSs of the different key words and for each grouping tried each cylinder size that was the skip of one of the ELSs of the grouping divided by each integer between 1 and 10. The result of the division was rounded to the nearest integer. The row skip of the resonant ELS on the cylinder must be no more than 10 and the cylinder size must differ by no more than one from its natural resonant size for the resonant ELS. The row skip being less than or equal to 10 makes the resonant ELS skip interval be between the first and tenth harmonic of the cylinder size. The cylinder size $c$ being the natural resonant size for the resonant ELS of skip $s$ means that if the ELS is the $n^{th}$ harmonic of the cylinder size, the absolute difference between the skip interval $s$ and product $nc$ is the smallest possible over all possible cylinder sizes.

The fourth part of the protocol is the specification of the monkey text population. Here there are many possible choices. For example one could choose the text population of modern Hebrew novels or the text population of newspaper stories. However, such populations have a problem. Suppose that an experiment were done and resulted in a significant result. Then one could interpret the significance of the result not in terms that there are encodings in the Torah text, but rather that the observed difference actually arises because of the difference between the Biblical Hebrew of the Torah text and modern Hebrew of the monkey texts. There are differences in letter frequencies and differences in grammar.

Other text populations that could be considered include letter random permuted Torah texts and word permuted Torah texts. These texts would have exactly the same letter frequencies as the Torah text. However, the letters in letter permuted texts do not form words and the words in the word permuted text do not form grammatical sentences. Perhaps the closest text population is verse permuted Torah texts.
Torah Codes: A Glimpse Into The Infinite

Here the letters form Biblical Hebrew words and the words form Biblical Hebrew sentences. But the ELSs found in such texts are not the same as the ELSs found in the Torah text. For any key word the number of its ELSs in the Torah text and the number of its ELSs in the verse permuted text would most certainly be different. And one could argue that any significant experimental result is somehow caused by these differences.

There is one text population that is immune to all the above arguments. That text population is called the \textit{ELS random placement population}. This text population is a virtual text population meaning that a text with letters and words and sentences is not actually constructed. Rather what is constructed for each virtual text is a set of ELSs. Each monkey text ELS has a corresponding ELS in the Torah text associated with the same key word and the same skip interval. The only difference is that in the monkey text the beginning position of each ELS is chosen at random. Figure 1 illustrates this idea in a text of 64 characters and an ELS of the English key word \textit{opened}. In the original text the beginning position of the ELS is at position 47. It has skip 3 and is 6 characters long with a span of 16 characters. There are $64-16+1=49$ possible placements of a span of 16 in a text of length 64 positions. In the ELS random placement population each one of the possible 49 placements has an equal chance of being chosen for each virtual text.

![Original Position](image)

![Randomly Placed Position](image)

Figure 1 illustrates how the original position of an ELS of the key word OPENED might be randomly placed in the virtual ELS random placement model text population.

The \textit{fifth part} of the protocol is the measure of compactness. There are a variety of measures of compactness. They are all positively correlated. When one measure has a high probability most likely the other measure will too. When one measure has a low probability, most likely the other measure will too. However, for one the low probability may be .0001 and the other may be .000001, a difference of two orders of magnitude. Such differences may happen for the small probabilities, but not for the large probabilities. To keep our discussion simple here we mention only four basic and related compact measures: the area of the table (its number of letters), its maximum side length (the maximum of the number of rows and columns of the table), its diagonal length, and its perimeter. For these compactness measures, the smaller the value the more compact. Unless otherwise stated, the compactness measure that will be used for the tables of this book will be the area measure.

The \textit{sixth part} of the protocol is the hypothesis test. The hypothesis test that we consider is always the Null Hypothesis of no Torah Code effect against an alternative hypothesis that the observed table in the Torah text is significantly more compact than what would be expected to be observed by chance if there were no Torah Code effect. For a single given key word set, we estimate the p-value associated with the Null Hypothesis for the given key word set. To test the Null Hypothesis against the Torah Code hypothesis, we must have multiple key word sets as discussed in the earlier section introducing
The seventh part of the protocol describes what statistical calculation will be done in order to carry out the hypothesis test. In situations where the test is with respect to multiple tables simultaneously, a significant part of the protocol must describe how the various compactnesses or statistics of compactnesses are combined together to form one number per text. In the situation where there is only one table, the statistical calculation is direct. It is simply the fraction of monkey texts whose best table is the same or more compact than the best table of the Torah text. If this fraction is sufficiently small, the Null Hypothesis of no Torah Code effect is rejected. The threshold value defining significantly small is called “the level of significance of the test.” For single tables it would not be unusual to use a level of significance of .01 or .02. Our standard in this book is .02. For multiple tables, it would not be unusual to use a level of significance of .001.

**Experimental Protocol Variations**

There are three variations of experimental protocol that are used in this book. The first one is exactly as discussed in the previous section. The parameters of this first protocol are given in the table of Figure 1.

The second protocol results when using an *a priori* set of key words where some of the key words have short length and some have long length. In this case, we want the long length key words to have ELSs that dominate the cylinder size and we allow the short length key words to have any skip that resonates with the cylinder size. We call this protocol “the linked protocol.” The short length key words must be designated *a priori*.

The third protocol is used also in the case of developing a table. However instead of insisting that at least one ELS of each of the supporting key words appear in the table, we allow that only some of the key words in the supporting key word set may have ELSs in the table. Since the specification of which key words have ELSs in the table was not done *a priori*, we cannot use the second protocol to determine the p-value. What we have to do is fix the cylinder size to be the cylinder size on which the table is located and fix the number of rows and number of columns of the table to be the table size of the most compact table observed in the Torah text. For each key word we search over all skip intervals that might produce an ELS that fit within the area of the table. Using the resulting set of ELSs we use the ELS random placement model monkey texts. For the Torah text and for each sampled monkey text we observe for each key word how many ELSs it has within the given table. We associate a score with each text. The score of a text is the fraction of sampled texts that for each key word have at least as many ELSs in the table area that it has. The smaller the fraction the more unusual the text. The p-value of the experiment is the fraction of texts whose score is no more than the score of the Torah text.

When the third protocol is used, instead of stating the sentences that define a text score and then say that a computed score is determined for each text and the p-value of the experiment is the fraction of texts with scores no more than the Torah text, we will employ a short hand phrase. We will simply say that “the probability that a monkey text will have at least as many ELSs of the supporting key words is ....”

In the case of developed tables, the probability that the table would result by chance is the product of the p-value that results from the first protocol times the p-value that results from the second or third protocol,
whichever is employed.

<table>
<thead>
<tr>
<th>Key Word Set</th>
<th>ELSs of all must be present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skip Interval Search</td>
<td>Minimum skip interval is 1 or 2. Smallest maximum skip interval set for each key word so that the expected number of ELSs in a letter permuted text is just N or more, where N is the user set parameter of the expected number of ELSs. For most of the experiments N=10. On occasion larger values are used.</td>
</tr>
<tr>
<td>Code Cylinder Size Search Space</td>
<td>All ELSs must have a skip interval of no more than the 10th harmonic of code cylinder size. This means the row skip of each ELS must be no more than 10. Also the column skip of the ELS must be no more than 10. On a few occasions a larger skip column size is permitted.</td>
</tr>
<tr>
<td>Text Population</td>
<td>The Torah text is the Chumash (The Five Books of Moses). On occasion it is specified as one of the Five Books. The Monkey text population is ELS random placement model texts. The number N of monkey texts sampled is set so that 1/N is much smaller than the resulting p-value of the experiment.</td>
</tr>
<tr>
<td>Compactness Measure</td>
<td>Area of table</td>
</tr>
<tr>
<td>Hypothesis test</td>
<td>Null Hypothesis of no Torah Code effect against an alternative that the table is more compact than expected by chance.</td>
</tr>
<tr>
<td>Statistical Analysis Methodology</td>
<td>The p-value of the experiment is the fraction of sampled monkey texts having as compact or more compact tables than the most compact table in the designated Torah text.</td>
</tr>
</tbody>
</table>

Figure 2 lists the protocol parameters of the main protocol used in the book.
<table>
<thead>
<tr>
<th>Key Word Set</th>
<th>ELSs of all key words must be present. ELSs of key words with small number of letters are designated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skip Interval Search</td>
<td>Minimum skip interval is 1 or 2. Smallest maximum skip interval set for each key word so that the expected number of ELSs in a letter permuted text is just N or more, where N is the user set parameter of the expected number of ELSs. For most of the experiments N=10. On occasion larger values are used. The designated short length key words are permitted to have larger skips which resonate with the cylinder size associated with one of the longer length key words.</td>
</tr>
<tr>
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<tr>
<td>Hypothesis test</td>
<td>Null Hypothesis of no Torah Code effect against an alternative the the table is more compact than expected by chance.</td>
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<tr>
<td>Statistical Analysis Methodology</td>
<td>The p-value of the experiment is the fraction of sampled monkey texts having as compact or more compact tables than the most compact table in the designated Torah text.</td>
</tr>
</tbody>
</table>

Figure 3 lists the protocol parameters of the secondary protocol used in the book. This protocol is called *the linked protocol* because the designated short length key words have ELSs that are linked (harmonically resonate) with the larger length key words.
### Torah Codes: A Glimpse Into The Infinite

<table>
<thead>
<tr>
<th>Key Word Set</th>
<th>ELSs of all must be present within the number of rows and columns and starting location of a given table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skip Interval Search</td>
<td>All possible skip intervals that might result in an ELS that could fit within the table.</td>
</tr>
<tr>
<td>Code Cylinder Size Search Space</td>
<td>Code cylinder size is the code cylinder on which the given table is located.</td>
</tr>
<tr>
<td>Text Population</td>
<td>Torah text is either the <em>Chumash</em> (Five Books of Moses) or a specified one of the 5 books. The Monkey text population is ELS random placement model texts. The number $N$ of monkey texts sampled is set so that $1/N$ is much smaller than the resulting p-value of the experiment.</td>
</tr>
<tr>
<td>Compactness Measure</td>
<td>Area of table</td>
</tr>
<tr>
<td>Hypothesis test</td>
<td>Null Hypothesis of no Torah Code effect against an alternative the the table is more compact than expected by chance.</td>
</tr>
<tr>
<td>Statistical Analysis Methodology</td>
<td>The p-value of the experiment is the fraction of sampled monkey texts whose score is no more than the score of the Torah text. The score of a given text is the fraction of sampled texts having for each key word at least as many ELSs in the given table location and area as the given text has.</td>
</tr>
</tbody>
</table>

**Figure 4** lists the protocol parameters of the third protocol used in the book. This protocol is only used on the occasion when we wish to compute the probability that some given subset of supporting key words have ELSs in the table that has been determined by an *a priori* experiment.

If we are doing a formal test of hypothesis in an experiment having many sub-experiments, we can combine together the p-value of the sub-experiments using the Fisher statistic. Suppose that each sub-experiment estimates a p-value using $N$ sampled monkey texts. Under the Null Hypothesis of no Torah Code effect, each experimentally determined p-value is distributed uniformly on the discrete interval $[0, 1/N,...,N/N]$. We will compute the product $x_0$ of these p-values. The product is called the Fisher Statistic. We ask how often would we expect to observe a product as small as we have observed. Assuming independence among the p-values and that a uniform distribution over $[0,1]$ is close enough to the discrete interval distribution, the probability that such a product $X$ of $N$ p-values would be less than the observed product $x_0$ is given by
Torah Codes: A Glimpse Into The Infinite

\[ Prob(X < x_0) = x_0[1-ln x_0 + (-ln x_0)^2/2! + ... + (-ln x_0)^{N-1}/(N-1)!] \]

If this probability is less than the significance level .001 we will reject the Null Hypothesis of no Torah Code effect in favor of the alternative hypothesis that the smallest area tables associated with the key words sets of the individual sub-experiments have smaller p-values in the given text than expected by chance. If the probability is not less than the significance level .001, we will not reject the Null Hypothesis of no Torah Code effect. In effect, this means that we will accept the hypothesis of No Torah Code effect.

There is another situation in which we do N sub-experiments using different key word sets on the same topic or different experimental protocols using the same key word sets. In this case, if there is an encoding we are not expecting that the distribution of the p-values of the sub-experiments to be skewed to small values. Rather, if there is an encoding we are expecting that at least one of the sub-experiments to succeed. We are expecting at least one of the sub-experiments to have a small p-value. So our test statistic is the minimum p-value. The p-value of the combined experiment is the probability that the minimum p-value we observed in the sub-experiments is as small as we observed it to be. In this case we cannot make any assumption of independence among the sub-experiment p-values. The best we can do here is use the “Bonferroni inequality.” The Bonferroni inequality states that if the minimum p-value of the N sub-experiments is \( p_{\text{min}} \), then under the Null Hypothesis of No Torah Code effect, the p-value associated with the statistic \( p_{\text{min}} \) cannot exceed \( N p_{\text{min}} \). Hence, if \( Np_{\text{min}} \) is less than the our preset significance level of .02, we will reject the Null Hypothesis of No Torah Code effect with respect to the given set of key words in favor of the alternative hypothesis.

The technical discussion so far has been about simple experiments, some of which might have some associated sub-experiments. The compactness measure was the area of the table. Now we turn our attention to a more sophisticated methodology used for more complex experiments where there are multiple key word sets, each key word set being a key word pair, such as an appellation and death date, for a famous personality and there being multiple key word pairs for each personality. The method we are going to describe also uses a more sophisticated measure of compactness specially designed for a pair of ELSs.

Let an appellation date key word pair be \((w_1, w_2)\) and let a text index be \(t\). For each key word \(w\), let \(E(w, t)\) be the set of ELSs of \(w\) in text \(t\) found in accordance with the ELS search protocol. For any pair \((e_1, e_2)\) of ELSs let \(C(e_1, e_2)\) be the set of cylinder sizes that resonate with \(e_1\) or \(e_2\). Here we define a cylinder size to resonate with an ELS if the row skip of the ELS on the cylinder is 10 or less and column skip of the ELS on the cylinder differs by no more than one column from the natural skip of the ELS on the cylinder. Let \(d_{\text{min}}(e_1, e_2, c, t)\) be the closest squared distance on the cylinder of size \(c\) between the letters of ELSs \(e_1\) and \(e_2\) in text \(t\). Let \(d_{\text{max}}(e_1, e_2, c, t)\) be the furthest squared distance on the cylinder of size \(c\) between the letters of ELSs \(e_1\) and \(e_2\) in text \(t\). For any ELS \(e\), cylinder size \(c\) and text \(t\) let \(s(e, c, t)\) be the sum of the squared row skip and squared column skip of ELS \(e\) on a cylinder of size \(c\) in text \(t\). Then the compactness measure \(B\) for key word pair \((w_1, w_2)\) on text \(t\) is a function of the terms

\[ B = \sum_{e_1, e_2} [s(e_1, c, t) + s(e_2, c, t)] \]

17. We use our standard of .02 for the significance level for the combined experiment because we are only expecting one of the sub-experiments to succeed. We are not testing a hypothesis that suggests that more than one of the sub-experiments will succeed.
There are a number of functions that could be chosen, each with different statistical efficiency and power. Here we limit ourselves to a function arising from the best cylinder associated with each pair \((e_1, e_2)\) of ELSs, \(e_1 \in E(w_1, t), e_2 \in E(w_2, t)\).

\[
\min \{ d_{\min} (e_1, e_2, c, t)[ s(e_1, c, t) + s(e_2, c, t) ] | e_1 \in E(w_1, t), e_2 \in E(w_2, t), c \in C(e_1, e_2) \}
\]

There are a number of functions that could be chosen, each with different statistical efficiency and power. For example, we could take the geometric mean, arithmetic mean or the harmonic mean. In a talk given at the Torah Code Conference in 2000, we showed that the harmonic mean, which was essentially what WRR used to combine ELS pairs of a given appellation date pair, was statistically better.

The harmonic mean \(h\) of \(N\) positive numbers \(x_1, \ldots, x_N\) is defined by

\[
h(x_1, \ldots, x_N) = N/(1/x_1 + \ldots + 1/x_N)
\]

Let us call the resulting measure for appellation date pair \((w_1, w_2)\) and text \(t\) \(B_1(w_1, w_2, t)\). For each monkey text \(t\) of the experiment and for each appellation date pair \((w_1, w_2)\) from the key word pair set \(Wp\) of the given biblical personalities, we observe \(B_1(w_1, w_2, t)\). For each \((w_1, w_2)\) pair, the raw data of the experiment is the list of values \(B_1(w_1, w_2, 0), \ldots, B_1(w_1, w_2, T)\). For each pair \((w_1, w_2)\) these values are rank normalized over all \(t\). Rank normalization here means that each value \(v\) of the list is replaced by a fraction whose numerator is the number of values in the list less than \(v\) plus one half the number of values in the list equal to \(v\) and whose denominator is the number of values in the list. Then, following how WRR combined the harmonic means across all appellation date pairs, we compute \(G_1(Wp, t)\) for the text \(t\) and a word pair set \(Wp\) as the geometric mean of the rank normalized values of \(B_1(w_1, w_2, t)\) taken over all word pairs \((w_1, w_2)\) in the set \(Wp\). The p-value, \(P_1(Wp, t)\) for a text \(t\) is then just the rank normalized value of \(G_1(Wp, t)\) taken over all texts \(t\). As the Genesis text is the first text \(t=0\), the p-value associated with the compactness measure \(B_1\) is the rank normalized value \(P_1(Wp, 0)\). \(B_2\) is defined similarly to \(B_1\) using \(d_{\max}\) instead of \(d_{\min}\). \(B_2\) uses terms from

\[
\min \{ d_{\min} (e_1, e_2, c, t)[ s(e_1, c, t) + s(e_2, c, t) ] | e_1 \in E(w_1, t), e_2 \in E(w_2, t), c \in C(e_1, e_2) \}
\]

As before, we select the function to combine all these terms to be the harmonic mean. As for \(B_1\), \(B_2(w_1, w_2, t)\) is rank normalized over all monkey texts. The geometric mean of each rank normalized value is taken over all appellation date pairs to form \(G_2(Wp, t)\). The p-value \(P_2(Wp, 0)\) associated with the compactness measure \(B_2\) is the respective rank normalized value of \(G_2(Wp, 0)\).
Chapter 5
The McKay Experiments

Professor McKay, from the Computer Science Department at Australian National University, has a very nicely organized web site that contains many of the skeptic’s arguments against the codes. The web site url is cs.anu.edu.au/~bdm/dilugim. There one can also find what appear to be significant tables in books like the Hebrew translation of War and Peace or the English text of Moby Dick. These experiments are only made to appear to be similar to the WRR experiment. However, they are parody experiments and certainly do not show that there is any encoding in War and Peace nor do they show that the same effect that can be found in the Torah text can also be found in War and Peace or Moby Dick.

The reasoning behind Professor McKay’s experiments is as follows. Everyone agrees that texts such as War and Peace or Moby Dick contain no encodings. Now suppose an experiment is done using those texts. Suppose the experiment produces a statistically significant result thereby providing evidence of encodings in such a text. In this case, we have a contradiction to our assumption that there are no encodings in such a text. Therefore, the problem must be in the experimental methodology: the experimental methodology must be faulty.

In particular, Professor McKay makes the claim that tables arising out of compact meetings among low skip rank ELSs of logically/historically related words in the Torah text can be found in any text where it is agreed that there are certainly no encodings. If this claim were true, then the compact meeting criteria as stated in the Torah Code hypothesis (explained in a previous section) has no discriminatory power. The same effect causing compact tables to be found in ordinary texts is the effect operating with respect to the Torah’s compact tables. As there is no Torah Code effect in ordinary texts, there is no Torah Code effect in the Torah text. That in a nutshell is his argument. To present this argument in graphic form, Professor McKay shows many examples of key words that are logically/historically related and “compact” tables of their ELSs from texts such as the Hebrew translation of War and Peace or the English text of Moby Dick.

Here is what we already know. ELSs for any logically/historically related key words can be found in any text in any language. The existence of ELSs is not surprising. Given a set of key words and searching among the low skip rank ELSs of the key words, a most compact table by any prespecified criterion, like table area, can be found. From among all the possible tables containing the text’s ELSs of those key words there is a most compact table. The most compact table is also not interesting in its own right. So the graphic presentation of most compact tables is not interesting in its own right. What might be interesting, is that the most compact table that arises from at least one low skip rank ELS in a given text is much more compact than comparable most compact tables found in randomly sampled texts of a suitable defined monkey text population. For example, if the most compact table in the given text is more compact than 99% of the most compact tables found in randomly sampled texts of a monkey text population, this might be interesting. Or saying the same thing in another way: if no more than 1% of the texts in monkey text population have a most compact table more compact than the most compact table in the given text, this
might be interesting. The fraction of sampled texts from the monkey text population that have a more compact table than the most compact table of the given text is called “the p-value of the experiment.”

With a criteria for relative compactness that states that no more than 1% of the texts in a monkey text population have more compact tables it is clear that if a text at random were selected from a monkey text population and its most compact table found, then 1% of the time the fraction of texts in the monkey text population having a more compact table than that found in the initially randomly sampled text would be precisely 1%. This means that our criteria for relative compactness is not foolproof. A 1% relative criteria means that 1% of the time an equal or better compact table can be found in a randomly sampled monkey text, a text that certainly has no encodings. This 1% is called the false alarm probability and it is the significance level of the experiment.

Now returning to Professor McKay’s graphic presentations, we will see that the tables that McKay shows could not have been created by the experimental protocols as detailed in the previous chapter. Therefore, they cannot be considered as evidence against the Torah Code hypothesis. One or more of the following are the reasons why:

1. The spelling of a key word is not correct.
2. The choice of a key word is clearly not a priori, or is just plain wrong.
3. The table does not involve a low skip rank ELS that resonates with the cylinder size.
4. The table is not among the most compact tables (first second or third most compact tables) involving ELSs of the given key words.
5. The probability that a monkey text would have a most compact table more compact than that shown by the presentation is greater than a reasonably chosen significance level such as 1% or 2%.
6. In the case of a compound experiment, the probability that an identical experiment carried out with monkey texts yields a p-value greater than the significance level set at 1/1000.

The first parody experiment we examine is the experiment that can be found on url cs.anu.edu.au/~bdm/dilugim/wpmckay.html. That page shows the best results of an experiment actually consisting of 20 experiments pairing either Brenden, הבנין, or Dr. McKay, הרמייק, with his date of birth, the 26th of Tishrei, מ, (October 26) or the year of his birth 5712, התשע‘, (1951) or his place of residence Canberra, קנברן. With the two possible name apppellations and the 10 possible variations in the expression of date, year, and city, there are a total of 20 experiments. McKay claims a p-value of 1/5400 obtained by a permutation experiment permuting the letters of the key words הבנין or הרמייק. The permutation method used by McKay has an essential problem. ELSs of permuted key words for short skip

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18. We measure this fraction as the number of monkey texts that have better compactnesses plus one half the number of texts that have equal compactness divided by the total number of monkey texts sampled.
19. There are 360 permutations of a 6 letter word in which two characters are identical. Since the experiment looks for positive and negative skip ELSs of a key word, a key word spelled forward and a key word spelled backward will yield the same experiment. So there are only 180 permutations of הרמייק that yield distinct experiments. There are 60 permutations of the 5 letter word הבנין in which two characters are identical. There are 30 permutations that yield distinct experiments. So the total number of permutations of the key words הרמייק and הבנין yielding distinct experiments are 180 x 30 = 5400. Each of the 5400 big experiments has an associated set of 20 small experiments and each one of the 20 small experiments has a smallest p-value. This smallest p-value is taken to be the score of the big experiment. McKay observes that of the 5400 big experiments, the experiment having the smallest score was the one associated with the original spelling, i.e. the identity permutation. Therefore, the p-value associated with the big experiments is 1/5400.
ELSs do not have the same distribution as for long skip ELSs due to the correlation between nearby letters in real text documents. And since the ELS for Canberra that matches a long skip ELS for Dr. McKay has a short skip of 2, the experimental p-value estimated by McKay cannot be relied upon and does not mean what it should mean.

<table>
<thead>
<tr>
<th>Console</th>
<th>Hebrew</th>
</tr>
</thead>
<tbody>
<tr>
<td>.2006</td>
<td>.4241</td>
</tr>
<tr>
<td>.8324</td>
<td>.1029</td>
</tr>
<tr>
<td>.7490</td>
<td>.1017</td>
</tr>
<tr>
<td>.2749</td>
<td>.3511</td>
</tr>
<tr>
<td>.3349</td>
<td>.0558</td>
</tr>
<tr>
<td>.2517</td>
<td>.5526</td>
</tr>
<tr>
<td>.9052</td>
<td>.0502</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>.5794</td>
<td>.3595</td>
</tr>
<tr>
<td>.6756</td>
<td>.0028</td>
</tr>
</tbody>
</table>

Table 1 shows twenty experiments using the pairing of a date, year, or city with the appellation Brenden or Dr. McKay in the Hebrew translation of *War and Peace*. The experiments use the Omega measure of compactness of WRR in an ELS random placement text population. The smallest p-value, .0028, is obtained from the pairing of Dr. McKay with Canberra. The p-value of the total experiment cannot be larger than .0504 = .0028 * 18. Indeed, using geometric mean as the combining method, a single experiment using all eighteen pairs obtains a p-value of .0423. Either way the results are not statistically significant.

Figure 1 shows the compact meeting between the ELSs of Dr. McKay, with Canberra, in the Hebrew translation of *War and Peace*. This is the table that McKay shows on his web site and claims a p-value of 1/5400 from a permutation method that permutes the letters.
We used an ELS random placement monkey text population and repeated the experiment using the Omega measure of WRR, with maximum skips set so that the expected number of ELSs for each key word was 10, and obtained the results shown in Table 1. The best experiment was the pairing of an ELS of Dr. McKay with Canberra. It yielded a p-value of .0028. The corresponding code table is shown in Figure 1. This is the one that appears on his website. By the Bonferroni inequality the p-value of the 18 experiments must be bounded above by .0504. We obtained a p-value of .044 using an experiment with the geometric mean method of combining Omega values, trial by trial. In either case, the results are not statistically significant.

We repeated the experiment using the area measure instead of the Omega measure. The results are shown in Table 2. They are also insignificant.

McKay repeated his experiment using a letter permuted text population and obtained a p-value of $2 \times \min\{4,9\}/10,000 = .0008$. We repeated this experiment using the Omega measure and the area measure also in a letter permuted text population. The results are shown in Tables 3 and 4 and are also not significant.20 Our results using the Omega measure should have been comparable to his results. We have no explanation for the order of magnitude difference between our results using the letter permuted text population and those of McKay.

Table 2 shows twenty experiments using the pairing of a date, year, or city with the appellation Brenden or Dr. McKay in the Hebrew translation of *War and Peace*. The experiments use the area measure of compactness. The smallest p-value, .0096, is obtained from the pairing of Dr. McKay with Canberra. The p-value of the total experiment cannot be larger than .172 = .0096 * 18. Indeed,

<table>
<thead>
<tr>
<th>בתרשים</th>
<th>בתרשים</th>
<th>ברוחב</th>
</tr>
</thead>
<tbody>
<tr>
<td>.3661</td>
<td>0.096</td>
<td></td>
</tr>
<tr>
<td>.3581</td>
<td>.6466</td>
<td></td>
</tr>
<tr>
<td>.6215</td>
<td>.2586</td>
<td></td>
</tr>
<tr>
<td>.4925</td>
<td>.6563</td>
<td></td>
</tr>
<tr>
<td>.5758</td>
<td>.4381</td>
<td></td>
</tr>
<tr>
<td>.5272</td>
<td>.6051</td>
<td></td>
</tr>
<tr>
<td>.7011</td>
<td>.6448</td>
<td></td>
</tr>
<tr>
<td>.1193</td>
<td>.6361</td>
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</tr>
<tr>
<td>-----</td>
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<tr>
<td>.3292</td>
<td>.2849</td>
<td></td>
</tr>
<tr>
<td>.0096</td>
<td>.3661</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows twenty experiments using the pairing of a date, year, or city with the appellation Brenden or Dr. McKay in the Hebrew translation of *War and Peace*. The experiments use the area measure of compactness. The smallest p-value, .0096, is obtained from the pairing of Dr. McKay with Canberra. The p-value of the total experiment cannot be larger than .172 = .0096 * 18. Indeed,

20. In the letter permuted monkey text population it is possible for monkey texts to have ELSs for key words that have no ELSs in the *War and Peace* text. Hence there are p-values for the key word 'פשיטה חנה'.
using geometric mean as the combining method, a single experiment using all eighteen pairs obtains a p-value of .4415. Either way the results are not statistically significant.

The second McKay experiment we will examine is McKay parody code about how the book of Genesis contains a code telling that codes can be found in the Moby Dick text. This experiment can be found at url: cs.anu.edu.au/~bdm/dilugim/moby.html. His website tells us that these codes contain minimal skip ELSs. Figure 2 shows the table and the key words it is based on, the Hebrew for מובדיק, “Moby Dick” and יש קוד ב, “there is a code in”. Using a search protocol with the maximum skip set for each key word so that the expected number of ELSs is 10, and the minimum skip is 2, we observe that the probability that a table as area compact as that found in Genesis would arise by chance is about .06. Both ELSs in the most compact table are minimum skip ELSs. Nevertheless, the table is not statistically significant.

<table>
<thead>
<tr>
<th>תורמקי</th>
<th>ברדי</th>
</tr>
</thead>
<tbody>
<tr>
<td>שאר</td>
<td>.1287</td>
</tr>
<tr>
<td>בק</td>
<td>.2207</td>
</tr>
<tr>
<td>בביר</td>
<td>.2253</td>
</tr>
<tr>
<td>בתי</td>
<td>.1126</td>
</tr>
<tr>
<td>חמש</td>
<td>.0597</td>
</tr>
<tr>
<td>חמש</td>
<td>.0210</td>
</tr>
<tr>
<td>שנות</td>
<td>.3814</td>
</tr>
<tr>
<td>שנות</td>
<td>.4671</td>
</tr>
<tr>
<td>שנות</td>
<td>.0945</td>
</tr>
<tr>
<td>קבירה</td>
<td>.1276</td>
</tr>
</tbody>
</table>

Table 3 shows twenty experiments using the pairing of a date, year, or city with the appellation Brenden or Dr. McKay in the Hebrew translation of War and Peace. The experiments use the Omega measure of compactness of WRR and the letter permuted text population. The smallest p-value, .0049, is obtained from the pairing of Dr. McKay with Canberra. The p-value of the total experiment cannot be larger than .098 = .0049 * 20. Indeed, using geometric mean as the combining method, a single experiment using all eighteen pairs obtains a p-value of .0217. Either way the results are not statistically significant.

Professor McKay presents a set of tables using the English text of Moby Dick. We review each of these tables and show that each of them is not significant. His website tells us that even some of these tables contain a minimal skip ELS of the central term. For example, Figure 3 shows the smallest area table in Moby Dick containing the key words Torah and No Code In. Setting the maximum skip for ELSs so that the expected number of ELSs is 10, and the minimum skip is 2, and using a ELS random placement monkey text population, the probability that a table as compact as this one would arise by chance is .253. Both ELSs in this table are minimum skip ELSs. This table is not statistically significant.
Torah Codes: A Glimpse Into The Infinite

Figure 4 shows the most compact table containing ELSs of the key words Bible and No codes in text of Moby Dick. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement monkey text population is .119. Both ELSs in this table are minimum skip ELSs. The table is not statistically significant.

<table>
<thead>
<tr>
<th></th>
<th>ברנדי</th>
<th>בכתי</th>
<th>בכתי</th>
<th>בכתי</th>
<th>בכתי</th>
<th>בכתי</th>
<th>בכתי</th>
<th>בכתי</th>
</tr>
</thead>
<tbody>
<tr>
<td>יזקנין</td>
<td>.3508</td>
<td>.1019</td>
<td>.3407</td>
<td>.6205</td>
<td>.4548</td>
<td>.5175</td>
<td>.3886</td>
<td>.6926</td>
</tr>
<tr>
<td>התשעים</td>
<td>.3430</td>
<td>.3391</td>
<td>.1607</td>
<td>.1780</td>
<td>.3750</td>
<td>.0606</td>
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<tr>
<td>התשעים</td>
<td>.0677</td>
<td>.1116</td>
<td>.1681</td>
<td>.0038</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 shows twenty experiments using the pairing of a date, year, or city with the appellation Brenden or Dr. McKay in the Hebrew translation of War and Peace. The experiments use the area measure of compactness and the random letter permutation text population. The smallest p-value, .0038, is obtained from the pairing of Dr. McKay with Canberra. The p-value of the total experiment cannot be larger than $.076 = .0038 \times 18$. Indeed, using geometric mean as the combining method, a single experiment using all eighteen pairs obtains a p-value of .0386. Either way the results are not statistically significant.

Professor McKay also presents a set of tables supposed telling about assassinations using the English text of Moby Dick. We review each of these tables and show that each of them is not significant. Figure 5 shows a table that McKay claims has a minimal skip ELS for Dollfuss, the Austrian Chancellor who was assassinated in 1934. The table crosses the plain text ELS for assassins. There are two things wrong with this table. First, the ELS for Dollfuss in this table has skip 19000. There is a smaller skip Dollfuss ELS at skip -6485, so it is not the minimal skip ELS as claimed. Second, it was Dollfuss who was assassinated. He was not the assassin. So the form of the word we would want it to cross is wrong. We do not want

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21. Since the writing of this material, some of which Professor McKay has seen, he has changed the description on his web site, backing off of his claim of minimality, to a vaguer statement of minimal over “domains of minimality just as long” as those in Drosnin’s tables.
assassins. We want assassinated. The term assassin is here clearly one that was not a priori and can be certainly classified as a “wiggle term.” So although the probability that a table as compact as this would arise in an ELS random placement text population is 7/100,000, we must declare that this table is not a significant encoding because one of the key words is not correct.

<table>
<thead>
<tr>
<th>יש קוד ב</th>
<th>There is a code in</th>
</tr>
</thead>
<tbody>
<tr>
<td>מבר דיק</td>
<td>Moby Dick</td>
</tr>
</tbody>
</table>

35293 35277
35366 35350
35439 35423
35512 35496
35585 35569
35658 35642
35731 35715
35804 35788
35877 35861
35950 35934
36023 36007
36096 36080
36169 36153
36242 36226
36315 36299
36388 36372
36461 36445
36534 36518
36607 36591
36680 36664
36753 36737
36826 36810
36899 36883
36972 36956
37045 37029
37118 37012
37191 37175
37264 37248
37337 37321
37410 37394
37483 37467
37556 37540

Figure 2 shows the table in Genesis telling that there is a code in Moby Dick. Setting the maximum skip for each key word so that the expected number of ELSs is 10, and the minimum skip set to 2, the probability that as compact a table of this would arise in a ELS random placement population is about .06. Both ELSs are minimum skip ELSs. The table is not statistically significant.

Figure 6 shows a table that McKay also claims has a minimal skip ELS for Kennedy, the US president who was assassinated in 1963. However, the ELS for Kennedy is not the minimal skip ELS. In fact its
skip rank is 11. Figure 7 shows another table that McKay also claims has a minimal skip ELS for Kennedy. However the ELS for the Kennedy in that table is also not the minimal one: its skip rank is 6.

Figure 3 shows the smallest area table in *Moby Dick* containing the key words *TORAH* and *NO CODE IN*. Setting the maximum skip for ELSs so that the expected number of ELSs is 10, and the minimum skip is 2, and using a ELS random placement monkey text population, the probability that a table as compact as this one would arise by chance is .253. Both ELSs in this table are minimum skip ELSs. This table is not statistically significant.
Torah Codes: A Glimpse Into The Infinite

Figure 7 shows the most compact table containing ELSs of the key words Kennedy and To Be Killed By Them. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .0025. The table shown is more compact than the one shown on McKay’s website. Evidently our program for finding compact tables is better than McKay’s. The ELS for Kennedy is not a minimal skip ELS. With regard to the small probability, it is clear that the a priori key word should not have been the phrase To Be Killed By Them, but should have been Killed. When the experiment is rerun with the key word Killed, the probability that a table would have been observed as compact as the one shown in Figure 7 is .256. This is shown in Figure 8.

Another table McKay claims has a minimal skip ELS for the central term is the table formed from ELSs of the key words Lincoln and Killed. This table is shown in Figure 9. However, the ELS for Lincoln has skip -1450 and there are ELSs for Lincoln with skips -1041 and 974. This makes the Lincoln ELS be the third minimal and not the minimal skip ELS. The probability that a table as compact as that shown in Figure 9 would arise by chance in a ELS random placement text population is .046. It is not statistically significant.

Another table McKay claims has a minimal skip ELS for the central term is the table formed from ELSs of the key words Rabin and Shot dead. The central ELS Shot dead is not a minimal skip ELS and the table is not a most compact table involving ELSs of the key words Rabin and Shot dead. The table also involves ELSs of other key words such as Igal Amir, the Rabin assassin, and Oslo, the city in Norway where the initial peace accords were agreed upon. However, these ELSs are not small skip rank ELSs. So for a variety of reasons McKay’s Rabin table does not qualify as an interesting table. Figure 10 shows the most compact table containing an ELS of the key words Rabin and Shot dead. The probability that a compact table as this would arise in a ELS random placement monkey text population is .71. The table is not statistically significant.

Figure 11 shows the most compact table containing ELSs of the McKay chosen key words ML King, for Martin Luther King and Killed. Martin Luther King was assassinated on April 4, 1968. McKay’s table can be found on url: cs.anu.edu.au/~bdm/dilugim/moby.html. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 50 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .025. The table is not only statistically not significant, but the ELS for ML King is not a low skip rank ELS. Its skip rank is 39.

Figure 12 shows the most compact table containing ELSs of the key words I Gandhi and Bloody Deed. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 200 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .0065. Though this table is statistically significant, the central term ELS I Gandhi is not a low skip rank ELS. Its skip rank is 201. Thus under the Torah Code hypothesis search protocol where the central term ELS must be a low skip rank ELS, this table would never have arisen. Indeed, if the expected number of skips is set to 10, the table that results has large area ( 81 rows by 28 columns) and the p-value associated with the table is .67, a totally not significant result.
Figure 4 shows the most compact table containing ELSs of the key words *BIBLE* and *NO CODES* in *Moby Dick*. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .119. Both ELSs in this table are minimum skip ELSs. The table is not statistically significant.

Figure 5 shows the most compact table containing ELSs of the key words *DOLFFUSS* and *ASSASSIN*. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is 7/100,000. The table is statistically significant, but with a wrong key word: assassin. So it is not significant.

Figure 13 shows the most compact table containing ELSs of the key words *Moawad* and *Exploding Bomb*. Rene Moawad was the president of Lebanon and was assassinated by an exploding bomb next to his car on Nov 22, 1989. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 2000 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .0845. To obtain the table that McKay shows, we had to set the expected number of ELSs to 2000, because the skip rank of the ELS for Moawad is 1604. This ELS is not a low skip rank ELS and under the Torah Code hypothesis the table is not
Torah Codes: A Glimpse Into The Infinite

interesting. In addition the table is not statistically significant. Tables with the expected number of ELSs set to a smaller value, like even 100 produce even less statistically significant tables. One such table is shown in Figure 14. The probability that a table at least this compact would arise in the ELS random placement population is .507.

![Figure 14](image)

Figure 6 shows the most compact table containing ELSs of the key words KENNEDY and HAD BEEN SO KILLED. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 20 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .02. By the .02 significance level criterion, the table borders being not statistically significant. However, the key word phrase HAD BEEN SO KILLED is clearly not a priori. So the statistical significance is meaningless.

![Figure 6](image)

Figure 7 shows the most compact table containing ELSs of the key words KENNEDY and TO BE KILLED BY THEM. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .0025. By the .02 significance level criterion, the table is statistically significant, but the key word phrase TO BE KILLED BY THEM is clearly not a priori. So the statistical significance is meaningless.
Torah Codes: A Glimpse Into The Infinite

Figure 8 shows the most compact table containing ELSs of the key words KENNEDY and KILLED. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .251. The table is not statistically significant.

Figure 9 shows the most compact table containing ELSs of the key words LINCOLN and KILLED. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .046. The table is not statistically significant.
Figure 10 shows the most compact table containing ELSs of the key words RABIN and SHOT DEAD. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 2, the probability that a table as compact as this will occur in an ELS random placement population is .71. The table is not statistically significant.
Torah Codes: A Glimpse Into The Infinite

<table>
<thead>
<tr>
<th>GINSIS</th>
<th>NMIGHT</th>
<th>FIGTOC</th>
<th>KILLED</th>
<th>LESHER</th>
<th>MILYTH</th>
</tr>
</thead>
</table>

Figure 11 shows the most compact table containing ELSs of the key words *ML KING* and *KILLED*. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 50 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .025. The table is not statistically significant.

<table>
<thead>
<tr>
<th>ITHAWHITEP</th>
<th>ABYOUNGMAN</th>
<th>SHISGRANDD</th>
<th>ETINGENERA</th>
<th>BLOODYDEED</th>
<th>WHALESHHEAD</th>
<th>IMPOSSIBLE</th>
</tr>
</thead>
</table>

Figure 12 shows the most compact table containing ELSs of the key words *I GANDHI* and *BLOODY DEED*. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 200 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .025. The table is not statistically significant.

<table>
<thead>
<tr>
<th>ERALLYHAILEDW</th>
<th>ITMIGHTBETHAT</th>
<th>ECESSARYONTO</th>
<th>HEGREATLEVIAT</th>
<th>PEQUODSTRYWOR</th>
<th>EXPLODINGBOMB</th>
</tr>
</thead>
</table>

Figure 13 shows the most compact table containing ELSs of the key words *MOAWAD* and *EXPLODING BOMB*. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 2000 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .0845. The table is not statistically significant.
Figure 14 shows the most compact table containing ELSs of the key words *MOAWAD* and *EXPLODING BOMB*. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 100 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .507. The table is not statistically significant.
Torah Codes: A Glimpse Into The Infinite

Moby Dick Combined Assassination Experiments

In the world of Torah Code tables, a compact appearing table by itself is not interesting. In the world of Torah Codes, we have to know the experimental protocol by which the table is produced. That protocol states how to select the key words (including their spelling), what compactness measure to use, what search protocol to use for finding ELSs, what cylinder sizes are to be included in the search over cylinder sizes, and what is the alternative hypothesis against which the Null Hypothesis is going to be tested.

From this perspective, all of McKay’s compact appearing tables in Moby Dick either have a high probability of occurring in a random text population or were produced by “snooping” rather by formal experiment. Snooping means examining the area around an ELS for ELSs of other non a priori words that might form a meaningful connection to the given word. After snooping, the snooper will have two or more key words and at least one compact appearing table having ELSs of those key words.

In this section we will repeat McKay’s Moby Dick experiment in a proper way without snooping. We will do an organized systematic a priori experiment. The experiment is to determine if Moby Dick foretells the killing of famous people. Therefore, we make up a list of famous people who were killed. The proper way to make up such a list is to state an objective a priori criteria and include all the people that meet the objective criteria. This actually takes a lot of careful work with biographical sources. We will finesse this work and take a list that includes those that McKay used plus a few others, just to illustrate the technique. The list of people includes: Indira Gandhi, Rene Moawad, Leon Trotsky, Martin Luther King, Engelbert Dollfus, John Kennedy, Abraham Lincoln, James Garfield, William McKinley, and Yitzhak Rabin.

We put each appellation into a uniform format: the initial of the first name prefixed to the spelling of the last name. So for example, Leon Trotsky would have the appellation LTROTSKY. Because both Martin Luther King and John F Kennedy were known with their middle names we will prefix their last name with the initials of their first and middle names, MLKING and JFKENNEDY. If there are no ELSs in Moby Dick with the middle initial, we will take out the middle initial. If there are no ELSs with only the first initial, we will then omit the first initial.

Of the ten names we have, there were no ELSs of JFKENNEDY or JKENNEDY so we use KENNEDY. There were no ELS of JGARFIELD so we use GARFIELD. There were no ELSs of WMCKINLEY so we use MCKINLEY. There were no ELSs of EDOLLFUS so we use DOLLFUS. All the others follow the standard form.

For our experiment we will use the key word KILLED as the word with which to pair each of the appellations. The input data set then consists of the 10 key word pairs.

<table>
<thead>
<tr>
<th>LTROTSKY KILLED</th>
<th>GARFIELD KILLED</th>
<th>KENNEDY KILLED</th>
<th>ALINCOLN KILLED</th>
<th>MCKINLEY KILLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLKING KILLED</td>
<td>DOLLFUS KILLED</td>
<td>IGANDHI KILLED</td>
<td>RMOAWAD KILLED</td>
<td>YRABIN KILLED</td>
</tr>
</tbody>
</table>

Table 5 gives the list of key word pairs used in our Moby Dick Experiment.
To run an experiment we must have a uniform *a priori* stated protocol. Our protocol sets the minimum skip for each key word to 1 and the maximum skip is set so that the expected number of ELSs for each key word is 10. We will search on all cylinder sizes such that each of the key words must appear on the cylinder with a row skip of not more than 10 and a column skip of not more than 10. Each experiment on a key word pair will involve 1000 trials using the random placement ELS text population formed from the *Moby Dick* text. In each experiment we follow the stated experimental protocol and determine the probability that the smallest area table found containing ELSs of the given two key words has as small or smaller area than the smallest area table found in the *Moby Dick* text. All smallest area tables will be found automatically, in accordance with the given protocol. The results of the experiment are shown in Table 5.

<table>
<thead>
<tr>
<th>Person</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leon Trotsky</td>
<td>.392</td>
</tr>
<tr>
<td>James Garfield</td>
<td>.188</td>
</tr>
<tr>
<td>John F Kennedy</td>
<td>.660</td>
</tr>
<tr>
<td>Abraham Lincoln</td>
<td>.023</td>
</tr>
<tr>
<td>William McKinley</td>
<td>.894</td>
</tr>
<tr>
<td>Martin Luther King</td>
<td>.961</td>
</tr>
<tr>
<td>Engelbert Dollfuss</td>
<td>.561</td>
</tr>
<tr>
<td>Indira Gandhi</td>
<td>.418</td>
</tr>
<tr>
<td>Rene Moawad</td>
<td>.798</td>
</tr>
<tr>
<td>Yitzhak Rabin</td>
<td>.471</td>
</tr>
</tbody>
</table>

Table 5 shows the experimentally determined probability that the best area table in a randomly chosen text from the population of ELS random placement monkey texts corresponding to *Moby Dick* is as good or better than the best area table from *Moby Dick*. The number of texts sampled is 1000.

To interpret these results, we must ask the question “with what probability do we expect to get this kind of a result given that the Null Hypothesis of there being no Torah Code effect in *Moby Dick* is true?” We will determine this probability by testing the Null Hypothesis against the alternative hypothesis that the observed probabilities are smaller than expected by chance.

Under the Null Hypothesis, each experimentally determined probability is distributed uniformly on the discrete interval \([0, 1/1000, ..., 1000/1000]\). We will compute the product \(x_0\) of these probabilities and ask how often would we expect to observe a product as small as we have observed. Assuming independence among the probabilities and that a uniform distribution over \([0,1]\) is close enough to the discrete interval distribution, the probability that such a product \(X\) of \(N\) p-values would be less than the observed product \(x_0\) is given by
\[
Prob (X < x_0) = x_0 \left[ 1 - \ln x_0 + \frac{(-\ln x_0)^2}{2!} + \ldots + \frac{(-\ln x_0)^{N-1}}{(N-1)!} \right]
\]

If this probability is less than the significance level \(0.001\) we will reject the Null hypothesis of no Torah Code effect against the alternative hypothesis that the smallest area tables associated (APPELLATION,KILLED) key word pairs have smaller p-values in the Moby Dick text than expected by chance.

The observed product \(x_0\) is \(8.47 \times 10^{-5}\) and we find that \(Prob (X < x_0) = .538\). We conclude that we cannot reject the Null Hypothesis. The results we observed are within those that could be reasonably expected by chance. Contrary to McKay’s comical assertion about Moby Dick foretelling assassinations, there is in fact nothing unusual going on in Moby Dick.

**McKay’s War and Peace Chanukah Table**

We finally turn our attention to the Chanukah table Professor McKay presents in the Hebrew translation of War and Peace. This table has key words for Candle of Chanukah, \(דקפג \) מומיא; Menorah, \(דנק \)-Menorah; \(דנק \) חנכה, \(דנק \) ידולכת; and Chashmonean, \(דנק \) השמונני. This table is shown in Figure 15. The expected number of ELSs was set to 10 and the minimum skip for an ELS was set to 2. The ELSs that appear in the table are all minimal skip ELSs. The probability that a table as compact as this table would appear in a text randomly sampled from the ELS random placement text population is \(7/10,000\). The table by itself is statistically significant. However, there is a problem with this table. First, the word for Chanukah must be spelled \(דנק \) חנכה and not \(דנק \) חנכה. Professor McKay argues that the word \(דנק \) חנכה occurs in Tanach and by the convention of WRR, this is the way it should be spelled. The word \(דנק \) חנכה indeed occurs in Nechemiah 12:27. There it appears in a verse about the dedication of the walls of Jerusalem. It appears as a noun meaning dedication. The holiday of Chanukah historically happened hundreds of years after the history told in the Tanach and so the word in Nechemiah has nothing to do with the Chanukah holiday that the Rabbis would declare hundreds of years later. Furthermore, prefixing the word \(דנק \) חנכה with the word \(ר \), candle, is clearly something that happened a posteriori, after looking at the ELSs and noticing that the ELS used for Chanukah had an extension. In the Talmud, Shabbat 21B, our Sages tell us that the derivation of \(דנק \) חנכה is \(דנק \) מצמ, from the root \(דנק \), meaning to encamp/rest, and the number \(דנק \) חנכה, 25. \(דנק \) חנכה means They encamped/rested on the 25th. This is the date that the Maccabees defeated the Greeks. That is the reason that Chanukah is celebrated on the 25th of the Jewish month of Kislev.
Figure 15 shows the most compact table containing ELSs of the key words related to Chanukah, with some of the key words having questionable spelling. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 10 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is 7/10,000. The table in itself is statistically significant. But the problems with the way two key words are spelled disqualifies this table.

The second problem is with the word for Hasmonean. It is not spelled מַשְׁמַנְיָא, but it is spelled השמידא. The source that Professor McKay gives for his spelling is a popular Chanukah song. But in that song liberties were taken to make things fit into meter or rhyme. Every historical source will have the spelling as השמידא, and with this spelling there is not even one ELS in the text of the Hebrew translation for War and Peace. Therefore, we have no choice but to omit Professor McKay’s incorrect spelling. If we form the most compact table for the remaining three key words, then the probability that a text from the ELS random placement text population would have as compact a table is .0314. Such a table is not statistically significant.
<table>
<thead>
<tr>
<th>Chanukah</th>
<th>חנוכה</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Lighting</td>
<td>שלוקה</td>
</tr>
<tr>
<td>Menorah</td>
<td>מנורה</td>
</tr>
</tbody>
</table>

Figure 16 shows the most compact table containing ELSs of the key words related to Chanukah using the Hebrew translation of *War and Peace*. Using a search protocol where the maximum skip is set for each ELS so that the expected number of ELSs is 100 and the minimum skip is 1, the probability that a table as compact as this will occur in an ELS random placement population is .0265. The table is not statistically significant.

In order to understand the statistical meaning of a set of tables, we must know the protocol under which the key words were selected, the experimental protocol by which the search for ELSs and cylinder sizes was done and the population of texts from which random texts were selected. It is this protocol that in essence defines the meaning of the resulting probability. Doing an experiment by “snooping,” as the McKay *Moby Dick* experiments were done, and then advertising the results as if done by a different protocol may advance a personal point of view, but it does nothing to help establish the truth of the situation. Rather it does the opposite. Whichever way the truth is, in the end it will make itself manifest by proper *a priori* experiments and not by snooped experiments.
In all the ways that it can be said, the consensus among critics is to say *not a priori*. If the key words are not chosen in an *a priori* manner, then a small probability that a table would arise by chance does not mean what it should mean. This is easy to illustrate. Suppose that we have a barrel of 1,000,000 balls of different colors. Suppose that in the barrel there are 100 balls that are colored blue. So if we were to pick a ball at random, the probability that a blue ball would be chosen is $100/1,000,000 = 1/10,000$. Now suppose I go looking in the barrel for a blue ball and I find one. What is the probability that I now hold a blue colored ball? Well, it is true that the probability of a blue ball being chosen at random is 1/10,000, but the probability that I now hold a blue ball in my hand is 1. After I am holding a blue ball, I cannot ask what is the probability that I would select a blue one at random. The event already has happened. Events that already have happened have probability 1. They are not *a priori*; they are *a posteriori*.

Let us consider as an example the table that Witztum presents pertaining to the Chanukah holiday. This was the time that the Syrian King Antiochus IV ruled that the Jews had to give up their religion, stop learning Torah, stop praying to God and only pray to the Greek gods. The Greeks recognized that Torah was in direct competition with their goal of making Hellenistic culture the common ground for all the peoples, including the Jews, of their vast empire. Antiochus forbade the observance of Shabbat, the observance of the New Moon (*Rosh Chodesh*), and the observance of the holidays -- Passover, Shavuot, Rosh Hashana, Yom Kippur, Sukkot. He forbade circumcision. Women who allowed their sons to be circumcised were killed with their sons tied around their necks. The rabbis and scholars of Israel were hunted down and killed. Jews who refused to eat pork or sacrifice hogs were tortured to death. The Jews revolted. The Chasmonean family from the city of Modiin led the revolt under the leadership of Yehudah, the son of Matityahu. The revolters were known by the nickname “Maccabees.” It took three years of fighting and on the 25th of *Kislev*, the Temple was rededicated. The victory over the Syrian King’s army and the Hellenistic influence permitted the Jews to again openly pray to God, observe their holidays, and learn Torah.

Witztum uses for his key words *The Chanukah*, *Maccabee*, *Chashmonean*, *Yehudah*, *חג המולד, התחכום, ממעני, מוכתר, יודה*. The table is shown in Figure 1. With the expected number of ELSs set to 10 and searching in the ELS random placement text population associated with Genesis, the probability that a randomly sampled text would have a more compact table is about .00025.

The critics argue that when the words for the Chanukah table are chosen, words like -- *Chanukah, Maccabee, Chashmonean and Yehudah* -- they are in fact *not a priori*. Rather, the critics argue that the Torah Code investigator checked out a number of words and tested how they might relate together. Key words that did not form compact relationships with other key words were discarded and the words that remain are the ones shown in the table. In plain and simple language, the critics argue that the Torah Code researcher cheated. They went to the back room and peeked and poked. Relative to our barrel of balls, the peeking and poking placed the blue ball on the top of the barrel where it would readily be chosen when a ball was selected.
Figure 1 shows Witztum’s basic Chanukah Table. This is the most area compact table arising in Genesis containing the four key words The Chanukah, חנוכה; Chashmonean, חשמונאים; Maccabee, מכביס; and Yehudah, יהודא. The table is on a cylinder size of 262 columns. The probability that more compact table would arise in the ELS random placement text population is .00025. On the first row of the table there appears 1/36/24 on the left and on the right. This means that the beginning and ending of this line of text can be found in Genesis (book 1), chapter 36, verse 24.

Here is the kind of argument that the critics might present. Everyone knows that Chanukah is a holiday where candles are lit. It is one of the basics of the holiday that one additional candle is lit for each of the eight days of the holiday. So the critics ask then, why was the word candles, נרות, not looked for? And before the candles are lit a blessing is said, so why was blessing ברכה, not looked for? They argue that perhaps they were searched for but could not be found in a compact relationship to Chanukah. So the Torah Code researcher just formulates tables possessing the closest meetings that they happened to have found in their search among all the various key words that they tried. In effect these closest meetings are analogous to holding the blue colored ball but telling the public that the ball had been randomly sampled.

To support this story, the critics will then reveal the results of a search done in the Five Books for the association of Chanukah with candles. The most compact table is shown in Figure 2. Although this table appears compact, it is not compact enough and it is not statistically significant.

Likewise say the critics, a search done in the Five Books for the association of Chanukah with blessing yields a most compact table shown in Figure 3. Although it too appears compact, it is not compact enough and it is not statistically significant.

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22. For example, if 20% of the most compact tables found in monkey texts were more compact than the one of Figure 3, then even though the table of Figure 3 is the most compact table, it would not be a statistically significant event.
Figure 2 shows the most compact table arising in the Five Books for the association of Chanukah with candles. Although the table may look compact, it is not statistically significant.

Figure 3 shows the most compact table arising in the Five Books for the association of Chanukah with Blessing. Although the table may look compact, it is not statistically significant.

The critics sensing that they are about to kill the prey makes their last argument. If one had to join the word Chanukah to another term to form a two word phrase, what would that completion most likely be? The critics answer their rhetorical question by stating: Chanukah Menorah or Chanukah candles. So let us consider another kind of experiment. The word Chanukah can be found in some modern Hebrew dictionaries with either one or the other of two spellings: דקִפָג or דקִפָג. And one may prefix it with the definite article, which in Hebrew is the letter הד. So the critics argue that there are four possibilities when looking for the word Chanukah. However, checking for the term Chanukah candles in each of the Five Books does not yield any compact table. Chanukah Menorah in the book of Exodus or Leviticus seems to yield small tables. The p-values are .0245 and .0185, respectively. So when these tables are shown as in Figures 4 and 5, the critics argue that the best result was not a simple a priori experiment. Multiple different key words or spellings had been tried. Then the critics argue that in fact there had been 60 experiments that had been tried: four ways of writing Chanukah with searches in each of Five Books and linking Chanukah with one of two other key words: Menorah or Candles. Menorah has two possible spellings: מֵנְוָה, מֶנְוָה so there are three possible linkages. And the best result .0185, under these circumstances, is not so significant. For under the Null Hypothesis of no Torah Code effect, each of the 60 experiments would yield a p-value that is uniformly distributed. The probability that in at least one of the 60 experiments there would be observed a p-value of .0185 is bounded above by the Bonferroni bound of 60 x .0185 which is greater than 1. So the result is just not significant.
Figure 4 shows the most compact meeting between ELSs of the key words and in the book of Exodus. Setting the expected number of ELSs to 10, the probability that a monkey text in the ELS random placement text population would have as a compact table is .0245.

Figure 5 shows the most compact meeting between ELSs of the key words and in the book of Leviticus. Setting the expected number of ELSs to 10, the probability that a monkey text in the ELS random placement text population would have as a compact table is .0185.

The form of the criticism in each case is the same. The critic makes up a story of what might have been possible -- the kinds of key words, their possible spellings and the nature of the different possible experiments -- and then either charges the Torah Code researcher with having in fact acted just in accordance with the story the critic made up or the critic then performs the experiment he described. There is no possible reply to the critic. The moment that the Torah Code researcher indicates that a choice had been made, the critic criticizes the choice: why this choice and not another choice.

Professor Barry Simon, a Torah Code critic, nicely summarizes the critic’s position. Paraphrased, Professor Simon says\textsuperscript{23},

So long as the Torah Code researcher had subjective choices, choices that had to be made and choices that might have been made in a back room, away from public sight, there is wiggle room. All statistically significant Torah Code experiments are explainable by wiggle room. If the Torah Code researcher were in fact to wiggle to find compact tables with the Hebrew translation of \textit{War and Peace}, or any other Hebrew text, the same way he

\textsuperscript{23}See the full texts of his arguments at www.wopr.com/biblecodes.
wiggles with the Torah text, then he would also find similar compact tables. He would find similarly statistically significant tables. They would not have exactly the same key words as the compact table found in the Torah text, but it would have a compact grouping of approximately the same number of equally relevant key words.

The critic’s argument in essence is that the experiment is not publicly repeatable. Once the key words are given, the search protocol can certainly be publicly executed and the same results will be found. But the problem says the critics is that the choice of the key words cannot be replicated in a public way.

From the critic’s point of view an explanation for the statistically significant results has been found: simply not a priori. However, just because the critic has found one explanation does not mean that the explanation describes in fact what happened. Just because it is possible to counterfeit money does not mean that the money in my wallet must be counterfeit.

The Torah Code researcher now begins to answer the critic with three different arguments. The first line of argument is one which explains how the compact tables arise in the Torah text with the Torah text in the table relating to the key words. The second argument further develops the initial table showing additional relevant terms and related tables. The third argument is one which describes successful experiments having strong arguments for its a priori choice of key words. Let us continue with Witzumblr’s Chanukah table shown in Figure 1. The verse running through the ELS is

ואלה המלכים אשר מלכו באורח אדום לפנים מלך לبني ישראל

And these are the kings who reigned in the land of Edom before there reigned any king over the Children of Israel

The Greeks and the Romans are spiritual ancestors of Esau and therefore are Edom. After the Chasmoneans defeated Edom, the Chasmoneans ruled. But they are from the tribe of Levi, the tribe who were designated to perform the service of God. Any king over the Jews must come from the tribe of Judah. Now we see in the table just following this verse an ELS of skip 1 of the key word phrase Levi a king. מלך. As well in the table there is an ELS for Greece, גreece. This is shown in the table of Figure 6.

Figure 7 shows the most compact table having ELSs of the key words מתניה, Chanukah and מתניה, Chanukah. Recall that Matityahu is the father of the Chashmonean family and its spiritual leader. His son Yehudah was the leader of the Maccabees. This table is in the same text area as the one of Figure 1. The ELSs for מתניה and מתניה are the same. The cylinder size here, however, is 33 columns. The probability that a monkey text would have a more compact table is .08. Figure 8 shows the most compact meeting between ELSs of מתניה and מתניה, Modiin, the city where the Chashmonean family lived. Using a search protocol with expected number of ELSs set to 10, the probability that a more compact table would arise in the ELS random placement population associated with the book of Genesis is .006. Finally, Figure 9 shows the most compact meeting in the Five Books between the ELSs of מתניה and מתניה, ח nose, 25th of Kislev. The ELS for מתניה is a minimal skip ELS in the entire Five Books. Using a search protocol with the expected number of ELSs set to 10 and the ELS random placement text population corresponding to

the Five Books, the probability that a text in the monkey text population would have as compact a table is .034.

<table>
<thead>
<tr>
<th>1/36:24</th>
<th>1/36:24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/36:32</td>
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<td>1/36:39</td>
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<td>1/38:30</td>
<td>1/38:30</td>
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</tbody>
</table>

Figure 6 shows the table of Figure 1 extended some to show the ELS *Levi King*. The Chashmoneans were from the tribe of Levi and they ruled over Israel until they themselves were overthrown.
Figure 7 shows the most compact table arising in Genesis with the key words of Chanukah and Matityahu. This table is in the same text area as the one of Figure 1. The ELSs for Chanukah and Matityahu are the same. The cylinder size here, however, is 33 columns. The probability that a table as compact as this would arise is .08
Figure 8 shows the most compact table having ELSs of the key words מַדְאִיעַךְ וַתָּנְכוּ and מַדְאִיעַךְ. Using a search protocol with expected number of ELSs set to 10, the probability that a more compact table would arise in the ELS random placement population associated with the book of Genesis is .006.
The third line of reply is to find an experiment for which there is strong evidence that the key words had to have been chosen \textit{a priori}. One such experiment is the Biblical personalities experiment. Doron Witztum did one variation of this experiment\textsuperscript{25}. Professor Rips another. And here we do yet a third variation. \textit{Midrash Tadsche}, \textit{Yalkut Shimoni}, and \textit{Rabeinu Bachya’s Commentary on Torah} each give the birth date of some of the major biblical personalities. There appear to be some differences in the dates even among different editions of the same texts. For the three texts we have in hand we will just take the majority date. The Talmud gives the birth date of Isaac\textsuperscript{26} and Moses.\textsuperscript{27} As well, \textit{Midrash Rabbah} gives the date of birth of Adam.\textsuperscript{28} The dates are listed in Table 1. In an actual experiment we use three different date forms: \textit{ixoZ }, \textit{ixoZ a}, \textit{ixzoZ }, corresponding to the English forms September 1, on September 1, the first of September. The spelling of each name follows that found in the Torah. Zevulun has two spellings \textit{boli} and \textit{boli}; we use \textit{boli}. Benyamin has two spellings: \textit{neimmi} and \textit{neimmi}; we use \textit{neimmi}. For the month of Cheshvon, \textit{boli}, which is sometimes called \textit{Mar Cheshvon}, \textit{marhshv}, we use just \textit{Cheshvon}. Following Table 1 is a set of Figures showing the most compact area tables arising in the book of Genesis for each of the name birth date pairs of Table 1, where the date form having the smallest area table is the one shown. The search protocol sets the maximum skip for each key word so that the expected number of its ELSs is 10. The monkey text population is the ELS random placement text population. Associated with each table is its p-value, the probability that a monkey text would give rise to as compact a table as found in the Genesis text.

By our 2\% significance level standard for single tables, only one name date pair out of the fifteen has a significant p-value. However, fourteen out of fifteen of the name date pairs have a p-value less than .5. Something unusual may be happening here. This group of name dates form a coordinated system and to determine how unusual our observation is we must determine the probability that a result as small as the

\textsuperscript{25}www.torahcodes.co.il/genesis/gen_hb.htm
\textsuperscript{26}Rosh Hashanother 10b-11a.
\textsuperscript{27}Kiddushin 38a.
entire result would arise by chance. This is the kind of experiment done by Doron Witztum and Professor Rips. We do a variation on this experiment using a different measure of compactness than they do and using a different way of statistically putting together all the results to get a score. Readers who are interested in the technical details will find them at the end of this section. The results from our experiment using 50,000 monkey texts was that the probability that a monkey text would have a better score than that observed in the Genesis text for the B1 compactness measure was .00067 and for the B2 compactness measure was .00001. The minimum of the two is .00001 and by the Bonferroni inequality, the p-value of the experiment is bounded above by .00002. At the .001 significance level we find the results significant.

<table>
<thead>
<tr>
<th>Personality</th>
<th>Date of Birth Midrash</th>
<th>Date of Birth Yalkut Shimoni</th>
<th>Date of Birth Rabbeinu Bachya</th>
<th>Date of Birth Majority Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td>אדום</td>
<td>א תשרי</td>
<td>א תשרי</td>
<td>א תשרי</td>
<td>א תשרי</td>
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<td>וי ניספ</td>
<td>וי ניספ</td>
<td>וי ניספ</td>
<td>וי ניספ</td>
</tr>
<tr>
<td>ראובן</td>
<td>וי כסל</td>
<td>וי כסל</td>
<td>וי כסל</td>
<td>וי כסל</td>
</tr>
<tr>
<td>שמעון</td>
<td>א תבכ</td>
<td>א תבכ</td>
<td>א תבכ</td>
<td>א תבכ</td>
</tr>
<tr>
<td>ליע</td>
<td>ט סני</td>
<td>ט סני</td>
<td>ט סני</td>
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</tr>
<tr>
<td>יהודה</td>
<td>י ה סני</td>
<td>י ה סני</td>
<td>י ה סני</td>
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<tr>
<td>צד</td>
<td>ט אלל</td>
<td>ט אלל</td>
<td>ט אלל</td>
<td>ט אלל</td>
</tr>
<tr>
<td>כפיל</td>
<td>ה תשרי</td>
<td>ה תשרי</td>
<td>ה תשרי</td>
<td>ה תשרי</td>
</tr>
</tbody>
</table>

Table 1 lists the names and birth dates of fifteen biblical personalities.
Figure 10 shows the most compact table arising in Genesis containing ELSs of the key words אדם, Adam and אetchup, first of Tishrei. The probability that a monkey text would have as compact a table as this is .351.

Figure 11 shows the most compact table arising in Genesis containing ELSs of the key word יצחק, Isaac and הבת כיסא, on the fifteenth of Nisan. The probability that a monkey text would have as compact a table as this is .121.

Figure 12 shows the most compact table arising in Genesis containing ELSs of the key word ראובן, Reuven and הבת כסל, on the fourteenth of Kislev. The probability that a monkey text would have as compact a table as this is .0035.

Figure 13 shows the most compact table arising in Genesis containing ELSs of the key word שמעון, Shimon and ה_cutoff, twenty-first of Tevet. The probability that a monkey text would have as compact a table as this is .226.
Figure 14 shows the most compact table arising in Genesis containing ELSs of the key word לֵי, Levi and כְּסִי, sixth of Nisan. The probability that a monkey text would have as compact a table as this is .1185.

Figure 15 shows the most compact table arising in Genesis containing ELSs of the key word יְהוֹדָה, Yehudah and כְּסִי, sixteenth of Nisan. The probability that a monkey text would have as compact a table as this is .294.

Figure 16 shows the most compact table arising in Genesis containing ELSs of the key word דָּנָן, Dan and הַח, ninth of Elul. The probability that a monkey text would have as compact a table as this is .262.

Figure 17 shows the most compact table arising in Genesis containing ELSs of the key word נַפְתָלִי, Naftali and הַח, on the fifth of Tishrei. The probability that a monkey text would have as compact a table as this is .196.
Figure 18 shows the most compact table arising in Genesis containing ELSs of the key word גד, Gad and יבשעון, tenth of Cheshvon. The probability that a monkey text would have as compact a table as this is .709.

Figure 19 shows the most compact table arising in Genesis containing ELSs of the key word יissor, Yissachar and יב אב, tenth of Av. The probability that a monkey text would have as compact a table as this is .0605.

Figure 20 shows the most compact table arising in Genesis containing ELSs of the key word שמח, Asher and יב צ וי, on twentieth of Shevat. The probability that a monkey text would have as compact a table as this is .1325.
Figure 21 shows the most compact table arising in Genesis containing ELSs of the key word זְבֻלון, Zevulun and יִזְיָזָה, seventh of Tishrei. The probability that a monkey text would have as compact a table as this is .1115.

Figure 22 shows the most compact table arising in Genesis containing ELSs of the key word יֹסֵף, Yosef and כִּנָּן, first of Tamuz. The probability that a monkey text would have as compact a table as this is .32.

Figure 23 shows the most compact table arising in Genesis containing ELSs of the key word בֶּנְוִי, Benoni and חֵשְׁבִּון, eleventh of Cheshvon. The probability that a monkey text would have as compact a table as this is .0375.
Figure 24 shows the most compact table arising in Genesis containing ELSs of the key word יהֶשֶׁמ, Moses and יַנָּה, seventh of Adar. The probability that a monkey text would have as compact a table as this is .1375.

In Table 2, we collect together all the p-values from the 15 biblical personalities. If we were to try to test the Torah Code hypothesis directly with this data, by the Bonferroni inequality, we would first have to multiply each of the best p-values by the number of sub-experiments done. For personalities that had two appellations, we must multiply by 2. Dates could be written three ways so each p-value has to be multiplied by 3. Some dates could be expressed two ways. So for personalities with those dates, we must multiply by 6. The resulting p-values bounds would have to be multiplied together to form the “Fisher test” statistic. However, because the Bonferroni inequality was used, this test statistic is not the one that has the most statistical power. Therefore, we will use a statistical methodology that has more statistical power, and a compactness measure that is statistically more effective. The technical details regarding the compactness measure and statistical methodology have been presented at the end Chapter 4. This methodology had been reported on in the 2002 and 2003 Torah Code conferences in Jerusalem. Neither this biblical personality data set nor any subset of it was used in the development of the methodology so there was no possibility of tuning the methodology to the data set. The combined experiment is a proper a priori experiment using a priori data. The p-value for the combined 15 biblical personality experiment is less than 1/3000.
Table 2 summarizes the best $p$-values for the individual sub-experiments. The compactness measure is the area compactness measure.

The Great Rabbis Experiment

In 1994 Witztum, Rips, and Rosenberg published a paper in *Statistical Science*\(^ {29} \) (WRR) describing a Torah Code experiment that has come to be known as “The Great Rabbis Experiment.” In that experiment, they selected rabbinic personalities from Margaliot’s *Encyclopedia on Great Men in Israel* on the basis of whether the personality had between 1.5 and 3 columns of text and a birth or death date. Professor Havlin provided for each of the selected personalities the appellations for each of these great men. Doron Witztum researched their birth or death dates.

Each personality then had a list of appellations and a list of dates. Their search protocol used small skip ELSs of these key words and a formula for the distance between an ELS appellation and an ELS date, and a way of combining these distances into one score. They tested the Null Hypothesis of no Torah Code effect against the alternative that the Torah text tends to have ELSs of the appellations and dates of the

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selected personalities closer together than would be expected by chance. The test was accomplished by a permutation method. They permuted the pairing of the date lists of each personality with the appellation lists. Just as in the original list, for each permutation, they obtained one score. The p-value of the experiment was computed as the normalized rank of the score obtained from the original pairing in the list of 1,000,000 permutations. The p-value was 4/1,000,000. Technically, they actually did four experiments, and the Bonferroni p-value bound is then four times the smallest p-value. The effective result is that the p-value must be less than 16/1,000,000.

With the *Statistical Science* publication, there began the controversy resulting in a critical paper authored by McKay, Bar-Natan, Bar-Hillel, and Kalai that was published in *Statistical Science* in 1999 (MBBK). That paper made two claims. The first is that by clever manipulation of the spellings of the appellations and the selection of which appellations to include, the great rabbis experiment can be made to fail in the book of Genesis and succeed in a Hebrew translation of the first 78,064 letters of *War and Peace*. Professor Barry Simon calls this “the wiggle room” in the experiment. MBBK claim that their clever manipulation was within the bounds of the rules that Professor Havlin used in providing the appellation selection and spelling for the original Great Rabbis Experiment. The second claim is that by varying the definition of proximity of one ELS to another, MBBK show that the definition chosen by WRR performed better than most of the other possible alternatives and that therefore this is evidence that the method had been tuned to the data.

The MBBK paper clearly shows that it is possible to counterfeit an experiment. But just because an experiment can be counterfeited does not imply that the WRR experiment was counterfeit.

The different proximity measure definitions discussed by MBBK essentially compute different statistics and in effect constitute different detectors. It is well understood in statistics that not all methods that estimate a given quantity are equally efficient. Some detectors are better than others. For example the sample mean is only an efficient estimator of the population mean for populations that have certain distributions. Change the distribution and other kinds of statistics are better estimators of population mean. The method used by WRR indeed has better statistical properties -- rejects the Null Hypothesis when the Null Hypothesis is not true and does not reject the Null Hypothesis when the Null Hypothesis is true -- with higher probability of being correct than most of the other variations discussed by MBBK.

Although what WRR used was not the best detector, it was good. And one cannot fault an experimentalist for using a good detector.

Readers interested in following the details of the discussion regarding the choice of appellations and dates can do so by reading the papers on Doron Witztum’s website www.torahcodes.co.il and Professor McKay’s website cs.anu.edu.au/~bdm/dilugim/torah.html. Torah Code researcher Harold Gans has a very readable discussion of the Great Rabbi’s Experiment and its criticisms on the Aish HaTorah website: www.aish.com/seminars/discovery/Codes/codes.htm. It is called *A Primer on The Torah Code Controversy for Laymen*. Our next section on the Cities Experiment is taken directly from his paper.

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The Cities Experiment

Torah Code researcher Harold Gans has kindly permitted us to include here the section in his Torah Codes primer discussing the Cities Experiment and its history.

In the late 1980’s, Harold Gans, then a Senior Cryptologic Mathematician with the National Security Agency, US Department of Defense, was told about the Great Rabbis Experiment. Being skeptical, he requested that Witztum and Rips provide him with the Book of Genesis on a computer disk so that he could duplicate the experiment. A few months later the data was provided. Gans did not immediately rerun the experiment; he reasoned that the data would never have been provided if the experiment were fraudulent. However, in 1990, Eric Coopersmith, then head of Aish HaTorah in North America, requested that he attempt to duplicate the Great Rabbis Experiment. Gans did so, using his own programs and following the specifications of the experiment in a preprint of the WRR paper. He then conceived of a new experiment: to use the same names and appellations as in WRR’s list 1 and list 2 combined, but pair them with the names of the cities of birth and death, as opposed to the dates of birth and death as in WRR. He asked Zvi Inbal, a new acquaintance and a lecturer for Arachim in Israel to provide the list of cities for the new experiment. Inbal obliged, providing Gans with the list, along with an outline of the methodology used to construct the list. The database for the list of cities was the same encyclopedia used by WRR, in addition to the Encyclopedia Hebraica. The text of Genesis, the mathematical formula for proximity, and the method of calculating statistical significance used were precisely the same as in WRR. (Actually, Gans first used a minor modification of WRR’s proximity measure, but later abandoned it in favor of WRR’s formula.) Gans completed the cities experiment in 1990 and documented his results in a preprint entitled Coincidence of Equidistant Letter Sequence Pairs in the Book of Genesis. The results were even more significant than that obtained by WRR: 6/1,000,000, or about 1/166,000. The paper was submitted for publication in Statistical Science but was rejected because it was not considered “of interest to the broad audience of Statistical Science” The editor suggested that a paper “whose focus was a review of the literature on probabilistic numerologic calculations in Biblical texts” would be of more interest!

In 1997, critics suggested to Gans that the Inbal list of cities had been contrived to ensure an apparently significant result. They pointed out that many names in the list were spelled differently than in either Encyclopedia and that there were apparent inconsistencies in the spellings. Gans took these criticisms seriously. He announced publicly that he had started an investigation of the validity of the Inbal list and would not take an official position on its validity until the investigation was complete. (Gans continued lecturing on codes during the investigative period, but always pointed out that the experiment was under investigation. He also pointed out that nothing had yet been found to suggest that the experiment was flawed.)

The first step in the investigation was to obtain a detailed explanation of the methodology of obtaining the city names. Upon request, Inbal provided Gans with a detailed explanation of the rules used to generate the list. These rules, now referred to as the “Inbal protocol”, form a complete algorithm which can be applied in a purely mechanical way to form the list from the two encyclopedias. The Inbal protocol is quite complex, enabling it to produce linguistically and historically correct data from encyclopedias that are inconsistent in spelling the names of foreign cities transliterated into Hebrew. Another important issue (among several) is that many of the cities had specifically Jewish names. Since WRR used Hebrew as

32. Letter from the editor of Statistical Science to Gans, July 25, 1995
opposed to secular dates, consistency demanded that Hebrew names be used for the cities even where the encyclopedias used secular names. Inbal also provided Gans with a detailed explanation of how each name/spelling in the list was obtained using the protocol. This list contained a handful of corrections to the original list.

The task before Gans was twofold: first, to verify that the Inbal protocol, with all its complexity, was not contrived to ensure an experimental “success”, but rather was designed solely to ensure linguistic and historical accuracy. Secondly, to verify that each name/spelling on the list was obtained by a purely mechanical application of the protocol. These tasks took Gans two years to complete. First, he extracted all the rules comprising the protocol, and posed these as questions to rabbaim, dayanim (Jewish Judges), roshei kollel (deans of advanced Torah study institutions), and experts in writing gittin (Jewish divorce documents, which must include the name of the venue of the divorce properly spelled in Hebrew or Aramaic) in the US, Israel, and England. He only queried those who had no previous contact with any of the details of any Torah Codes experiments. For each question posed, he received one of two answers: either they did not know, or their answer agreed with the Protocol. There was not one instance in which anyone felt that the Inbal rule was wrong! There was also no rule in the protocol that was not verified by some of the experts queried. In addition, no one felt that the protocol was incomplete and should have additional rules, with one exception. One expert suggested that a single alternate form should also be tried: the addition of the digraph “PP” (an acronym for k’hal kadosh, meaning “holy community”) as a prefix to each name. This was tried and failed. The conclusion of this part of the investigation was clear: the Inbal protocol was designed solely to ensure historical and linguistic accuracy. It was certainly not contrived simply to produce an apparent experimental success.

The next task was to verify the Inbal list. For this, Gans obtained the assistance of Nachum Bombach. Together, they applied the Inbal protocol and produced a list that they compared to that of Inbal. They noted several differences. In two instances Inbal used other historical sources rather than the two encyclopedias because in these cases the protocol produced erroneous data. In one case it was due to a typographical error in one of the encyclopedias. In the other case, it was due to two cities having very similar names. Gans and Bombach decided to use the erroneous data rather than violate the protocol. Thus, although there are a few known errors in the list, it is produced solely by mechanical application of the Inbal protocol. There are no exceptions. The final list produced by Gans and Bombach differs from the original Inbal list in only a handful of places. A new experiment was run on this list and produced the same level of statistical significance as had been obtained on the original Inbal list: 6/1,000,000. The investigation was successfully completed, and was announced publicly in May 1999 at the International Torah Codes Society conference in Jerusalem. Gans is currently documenting this work with all its details so that anyone who wishes can easily verify both the Inbal protocol and the list.

33. This is not to say that there aren’t some exceptions to the rules. However, there are no additional rules that would cover all the exceptions and not produce incorrect spellings as well.

34. This abbreviation is not pronounced; it is exclusively a written form. This is excluded by Havlin’s rules. Inbal simply followed his precedent. None of the experts consulted were familiar with any of the details of the WRR experiment, and certainly not with Havlin’s rules.
The Ingermanson Experiment

Physicist Randall Ingermanson did a different kind of experiment.\(^{35}\) His experiment is based on entropy, a measure of disorder. Random sequences of characters have high disorder and, therefore, high entropy. Given some number of characters, one can only predict the next character with a probability of being correct equal to the \textit{a priori} chance probability of the character occurring. Characters forming sequences of natural language text have less disorder, and therefore lower entropy.

Ingermanson takes the Torah text and forms skip texts. For example, a skip text of skip 50 is formed by starting at character position 1, and taking each successive character of the skip text to be the character that is in character position 50 more than the position of the current character of the skip text is taken from in the Torah text. For a skip of 50, there will be 50 skip texts.

With regard to the skip texts, the Ingermanson reasoning then goes like this:.

1. "If the Torah contains so much information embedded as ELSs in the text, then the entropy of these ELSs in the Torah must be lower than we would ordinarily expect."\(^{36}\)

2. "If the believer's [of the Torah Code hypothesis] are right, then the ELSs in each skip text taken from the Bible will be measurably different from those you'd predict in a random text."\(^{37}\)

3. "If their [the believer's] interpretation is correct, the Torah must be chock-full of ELSs at many different skips. No matter which skip we consider, we ought to see many more meaningful ELSs than random chance predicts. This means that every skip-text must contain many more meaningful words (spelled both backward and forward) than you'd expect to see in a random text.
   The digram and trigram frequencies of intentionally encoded words are different from those you'd expect by random chance, and they result in different digram and trigram entropies than those you'd get by random chance."\(^{38}\)

4. "If the skeptics [of the Torah Code hypothesis] are right, we expect that skip-texts taken from the original will have the same distribution of words, on average, as random skip-texts provided the skip is large enough."\(^{39}\)

Ingermanson then makes the entropy calculation for digrams and trigrams of Torah skip texts and finds that for skips greater than around 50 the Torah skip text digrams and trigrams have the same entropy as randomized texts. He concludes that there is no more structure in the Torah skip text ELSs than expected by chance and, therefore, the Torah Code hypothesis must be false.

In summary, Ingermanson argues that if the Torah Code hypothesis is correct, [this is the premise] there ought to be more ELSs and if there are more ELSs there will be more statistical structure or order in the

\(^{36}\) Ibid., pg. 70.
\(^{37}\) Ibid., pg. 86.
\(^{38}\) Ibid., pg. 86-87.
\(^{39}\) Ibid., pg. 87.
skip texts and therefore, the entropy of Torah skip texts ought to be lower than the corresponding entropy of randomized Torah skip texts [this is the consequence].

He makes the measurements and finds that the entropy of the Torah skip texts are not lower than the corresponding entropy of randomized Torah skip texts. Having provided evidence that the consequence is not correct, he concludes that the premise is false.

The argument is fallacious because Ingermanson seems not to understand the Torah Code hypothesis. The Torah Code hypothesis is that there are some domains of logical relationships where if one collects together clusters of key words that are logically related from the domain, then there will be a higher probability that there are more corresponding clusters of ELSs that are more compact (spatially close) in the Torah text we have today than expected in a population of randomized Torah texts.

The Torah Code hypothesis does not imply as Ingermanson argues that if the Torah Code hypothesis is correct, there ought to be more ELSs. The Torah Code hypothesis is completely consistent with a condition that the number and kind of ELSs are exactly what would be expected by chance. The Torah Code hypothesis states that the placement of the ELSs in the Torah text is skewed in such a way that there is a higher frequency of ELSs of related key words that appear closer together than expected by chance.

So basically, what Ingermanson has done is to restate the Torah Code hypothesis in a way that is not equivalent to the true Torah Code hypothesis, and then he provided evidence that his restatement of the Torah Code hypothesis must be false. As we have argued, his evidence has no bearing on the correctness or incorrectness of the true Torah Code hypothesis.
Chapter 7
The Crown of the Torah: Torah Codes

Rabbi Moshe Cordovero teaches,

Know that the secrets of the holy Torah is through permutation, *gematria*, first letters and last letters, the inner words, the head of the verses, and the last of the verses, and the skipping letters.\(^{40}\)

Skipping letters is the way Rabbi Moshe Cordovero expresses what we today call Torah Codes.

The term *gematria* includes all techniques having to do with numbers. This includes the numerology of the Hebrew words and the Torah Codes. The *Tikuney Zohar* teaches that *gematria* has to do with the Crown.\(^{41}\)

In Kabbalah, the name of God that is associated with the *sefirah* נְצָר, Crown is ה-כְּנֶה, a name literally meaning *I will be*. It has *gematria* 21. The *gematria* of תורה, Torah, is 611. The sum is 632 and 632 is the cylinder size of the first Torah Code table that we present that tells about the language of the Torah Codes themselves.

Our first table is dominated by the ELS phrase, יַכְּדּ תִּוְרָה שֶם י-ה, *Torah Code, the name of God*, ה-י, an ELS phrase with skip 632.

We read in Genesis, Chapter 11 the story of the Tower of Babel. The story begins with the verse,

*The whole earth was of one language and of a common purpose.*\(^{42}\)

*One language*, שְפֵם אָדוֹן, means the language with which the world was created\(^{43}\), the language of the Unique One of the world.\(^{44}\) The Baal HaTurim notes that the *gematria* of שְפֵם אָדוֹן is 794 and with the *kollel* of one more, this totals 795, the *gematria* of the phrase לְשׁוֹנָה הַקּוֹדֵשׁ, *the holy language*. This language is the language of God, the Hebrew language. In Hebrew, the *language of God* is written as


\(^{41}\) *Tikuney Zohar* 70: pg. 119b.

\(^{42}\) Genesis 11:1.

\(^{43}\) Rashi.

\(^{44}\) *Yerushalmi Megilla* 1:9.
Each *Torah Code*, קוד תורה, is likewise written in the Hebrew language.

With this background information we are ready to do two experiments taking either קוד תורה or לשון כ-ה-ה as a key word phrase and the other as two key words. One of the experiments was statistically significant. Its table is shown in Figure 1 where we take לשון כ-ה-ה as an ELS phrase and קוד תורה as separate key words. The expected number of ELSs was set to 10. The maximum row and column skip was set to 10. And the maximum row and column skip of a linked ELS was set to 1. The probability that a monkey text in the ELS random placement text population, corresponding to the Five Books, would have a table as compact as the one shown in Figure 1 is .006. As there were two experiments done, by the Bonferroni inequality, the p-value of the experiment cannot exceed .012. By our 2% significance level criterion, the result is statistically significant.

<table>
<thead>
<tr>
<th>Torah Code</th>
<th>קוד תורה</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>לשון כ-ה-ה</td>
</tr>
<tr>
<td>(of) God</td>
<td>כ-ה-ה</td>
</tr>
</tbody>
</table>

![Table](image)

Figure 1 shows the most compact table for the three key words. The table is on a code cylinder of 632 columns. The probability that such a table would arise in a text of the ELS random placement monkey text population corresponding to the Five Books is .006.

Figure 2 shows the development of the table in Figure 1. Notice the open text expression או ש לבלשכ, *each to his own dialect*, an expression in a verse that explains how the nations were separated in their lands by the different dialects they spoke. This interpretation is in accordance with the teaching of Rabbi S. R. Hirsch who states directly,

45. The language of God is indeed Hebrew. When God spoke to the prophets, the language He used was Hebrew. When the Israelites did not listen, God speaking through the prophet Isaiah said: *Very well then, with foreign lips and strange tongues God will speak to this people* (Isaiah 28:11). In other words, since you are not listening to Me when I speak in Hebrew and from within the Jewish community, then I will speak with foreign lips, in another language. This other language has two meanings. One meaning is the non-Hebrew language of the common culture at that time. Such a message would come from God to the Jews via a non-Jewish source, from outside the Jewish community. The second meaning is: You do not understand what you must do when I speak to you with Hebrew words, in that case I will speak to you through the actions that your enemies will take against you.
They had one lip but various tongues, i.e. they had one language, only it was spoken in different dialects.46

The first battle the Israelites had was with Amalek. The Torah tells us that

Joshua weakened Amalek and its people with the sword’s blade.47

Moses says,

For the hand is on the throne of God: God maintains a war against Amalek from generation to generation.48

The Torah uses the expression כִּס יִהְוָה for the throne of God. Throne is fully spelled קיסא. But here the Torah uses the incomplete spelling כסא. Rashi comments that this is so because God had sworn that His Name and His throne would be incomplete until Amalek is annihilated. And this is also the reason that instead of the great Name י-ד-א (the Tetragrammaton, the holy Hebrew Four Letter Name of God) we read only the first two letters י-ד. Rabbeinu Bachya teaches that י-ד represents God’s incomplete Name here on earth, the attribute of justice in the terrestrial domain.49 Since it is incomplete on earth, it means that this is the concealed part of God’s great Name. The last two letters י-ד represent the revealed part of God’s great Name.

In the Kaddish prayer in the Sephardic Siddur (prayer book) we say י-ד שמיה רבא מברך. This is usually translated, May His great name be blessed. But properly reading this as י-ד שמיה י-ד רבא מברך we would translate this as May His (incomplete/concealed) Name be great and blessed.

Examine further the table of Figure 2. In the ELS phrase beginning with קוד指纹 we find its extension שמש י-ד, the incomplete concealed name י-ד. This indicates that the Torah Codes are associated with the hidden part of God’s Name. In the code table we also find an ELS י-ד, he will understand and an ELS י-ד, they will understand. Finally there appears an ELS of the word holy, קדש, which shares a י with an ELS of the word י-ד, code. Furthermore, the י of י-ד from the ELS phrase י-ד חכמה is shared with the open text expression י-ד, each to his own dialect.

The earliest written reference to equidistant letter sequences is in a comment made by Rabbeinu Bachya, who lived in Spain in the mid thirteenth century, in his discussion of the first verse in Genesis. A detailed discussion of his comments can be found in Satinover’s book.50 Rabbi Chaim Michael Dov Weisman [the Rachmad] working without computers during the 1940’s and 1950’s found what he regarded as significant ELSs and ELS patterns. Some of his work was later published by his students in a book Torat Chemed, after his death. In 1976, Rabbi Shmuel Yaniv began working on Torah Codes specifically with

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47. Exodus 17:13.
respect to religious themes. It is in his work that we find told about the text table. It is in the same text area as the first table. In this table we ask a question: When did Rabbi Yaniv begin Torah Codes? In Hebrew this question is, מתי יחל יבנ חמד תורה? The question is answered in the table with the sentence, יאניב יחל חמד תורה שנה תשל, Yaniv will begin Torah Codes in the year 5736 (1976). Indeed that is when Rabbi Shmuel Yaniv began studying Torah Codes. His first book, Codes in the Torah, was published twelve years later in 5748 (1988). All this is shown in the table of Figure 3. Since then he has published four additional volumes of אפונות תורה.

<table>
<thead>
<tr>
<th>he will understand</th>
<th>יבין</th>
</tr>
</thead>
<tbody>
<tr>
<td>code</td>
<td>קוד</td>
</tr>
<tr>
<td>language</td>
<td>לשון</td>
</tr>
<tr>
<td>Torah</td>
<td>תורה</td>
</tr>
<tr>
<td>name</td>
<td>שם</td>
</tr>
<tr>
<td>holy</td>
<td>קדש</td>
</tr>
<tr>
<td>great name of God</td>
<td>נ-ה-ה</td>
</tr>
<tr>
<td>incomplete name of God</td>
<td>נ-ה</td>
</tr>
<tr>
<td>language for man</td>
<td>אש</td>
</tr>
<tr>
<td>they will understand</td>
<td>יבין</td>
</tr>
</tbody>
</table>

Figure 2 shows the development of the table of Torah Code, in the language of God. The probability that a monkey text would have as compact formation of the ELSs of יבנ and קדש as is found in the Torah is about than .000125. The probability that a monkey text would have as many ELSs for the supporting words יבנ and קדש as in this table is .041.
Figure 3 shows the interactive question answer way in which some Torah Code tables appear. *When will Yaniv begin Torah Codes* is answered as *Yaniv will begin Torah Codes in the year 5736*. This is the year 1976. The probability that an ELS of `elyzd cew` would occur in a 25 column window centered around this particular ELS of `dxez cew` is .00545.

The year 5736 is the year the *Arizal* indicates in his book *Likutey Torah* as the beginning of the time of redemption. There, in commenting on the first verse of the *parashah* Mikeitz,

*It happened at the end of two years*\(^5\)

The *Arizal* explains that the word *שנים* means *two years*. These two years were the two additional years that Joseph was in jail because he said to the minister of the cup bearers two years before, “*Mention me to Pharaoh.*”\(^5\) This statement to the minister indicated that Joseph was relying on people instead of God. For him this act showed a loss of faith. On this verse, the *Arizal* adds 365 with 365 for the number of days in two years and then adds 6 for the six digits of 365 and 365 and arrives at the total 736. Redemption is known to come in the sixth millennium which makes the year 5736. Just as Joseph was released from jail

\(^5\)Genesis 41:1. 
\(^5\)Ibid., 40:15.
at the end of the two additional years, so it is going to be that there will be redemption at this time too. The Vilna Gaon states in his many books that at the time of redemption there will be many secrets of Torah that will be revealed. One of these secrets is Torah Codes. It is interesting to note that the gematria of הקדימתרה. The Torah Codes, is 736. This 736 is the 736 of the year 5736. The full revelation of the Torah Codes will be at the time of Moshiach ben Yoseph.

The verse:

It happened at the end of two years

that the Arizal has interpreted is itself a verse that is associated with a table that contains the sentence: They will clearly see there is a hidden code in My Torah. This table, shown in Figure 4, was found by Doron Witztum.

<table>
<thead>
<tr>
<th>They will clearly see there is</th>
<th>ירא הבורר יש</th>
</tr>
</thead>
<tbody>
<tr>
<td>a hidden code</td>
<td>קאפ תבי</td>
</tr>
<tr>
<td>in My Torah</td>
<td>בתרות</td>
</tr>
</tbody>
</table>

Figure 4 shows the table containing the sentence: They will clearly see there is a hidden code in My Torah. This table was found by Doron Witztum. The code cylinder has 47 columns.

The word which we have first used for code, is קוד, the Hebrew transliteration of the English word code. There is a Hebrew root כפ which means hidden, and in the form קאפ means code. There is only one occurrence of the related word קאפ מתענה in the Five Books. It is in conjunction with the phrase קאפ מתענה, which is the name that Pharoah calls Joseph. The literal meaning of the name is taught by Onkelos: he who explains the hidden. The Alcalay Dictionary translates the name as revealer of secrets. The phrase מתענה את המפר privatizes the code. The gematria of קאפ מתענה with the addition of 2 for the 2 words and the addition of 1 for the kollel totals 831. This is the gematria of קאפ תורה. The addition for the words and the kollel indicates the connection to the source.

53. Arizal, Likutey Torah, Jerusalem, 5732, pg.48, (the original was published in 5640 in Vilna).
54. Genesis 41:1.
From the tribe of Joseph will come the Moshiach ben Yoseph, one of whose purposes will be to reveal to the world the gematria secrets of the Torah. The gematria of בצמה is 620, the same gematria of the word כתר, Crown. Again this indicates that the Torah Codes are related to the sefirah Crown.

Figure 5 shows a table built around the minimal skip ELS phrase אני תפארת תורה, Torah Code. The language of the Torah Code is in the language of Torah, meaning that we try to spell words using the same spelling we find in Torah. Thus it is no surprise that we have a close meeting between the ELS phrase אני תפארת תורה and the ELS phrase בכלי תפארת תורה, in the language of the Torah. Setting the expected number of ELSs to 10, searching in the Five Books, and using the ELS random placement monkey text population, the probability that a monkey text would have as compact a meeting as that shown in Figure 5 is .00035.

Figure 5 shows the most compact table containing ELSs of the phrases אני תפארת תורה, Torah Code, and the phrase בכלי תפארת תורה, in the language of the Torah. The code cylinder has 26 columns. The probability that a monkey text would have as compact a table as this is .00035.

Figure 6 shows the development of the table of Figure 5. The development suggests the close connection of code to the sefirah Crown and to Joseph. Notice that the כ of the ELS phrase אני תפארת תורה is shared with the ELS which is כתר without the ת. Next to this is an ELS of כתר, Crown. Also notice that the מ of יוסי, Joseph is the מ of מפרץ, Zptv.

Interestingly enough the Vilna Gaon is called the light of the Moshiach ben Joseph as is brought in the book Toldot Yitzchak. This book is a commentary on the commentary of the Vilna Gaon. Further supporting this is the Torah Code for the Vilna Gaon, הנאות مليלתא, whose most compact ELS meeting occurs in the verse where the brothers of Joseph speak to Joseph saying,

\[\text{We are all sons of one man; we are truthful men;}\]
This is shown in the table of Figure 7. The probability of a monkey text having a table as small as the Vilna Gaon table, is about .0025.

<table>
<thead>
<tr>
<th>Crown</th>
<th>חמר</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>צפף</td>
</tr>
<tr>
<td>Hebrew</td>
<td>עברי</td>
</tr>
<tr>
<td>In the language</td>
<td>בלשון</td>
</tr>
<tr>
<td>Torah</td>
<td>תורה</td>
</tr>
<tr>
<td>Joseph</td>
<td>יוסף</td>
</tr>
</tbody>
</table>

Figure 6 shows a table of the ELS phrase ד噱ז אוטב, Torah Code, an ELS phrase בלאשון תורה, in the language of the Torah, and the close connection of code to the sefirah Crown and the connection of Joseph to the codes. The probability of a monkey text having בלאשון תורה ד衅פ תורה and בלאשון תורה being in as compact formation as we see here in the Torah text is about 35/100,000. The table contains multiple instances of ELSs for the key words חמר, בבלשון, צפף, and תורא.

The table of Figure 5 is on a cylinder of 26 columns. If we change the cylinder size to 13 columns we will reveal what the hidden code consists of. On a cylinder of 13 columns, the ELS חספ תורה, Torah Code, has a row skip of 4. As shown in Figure 8 standing next to it is an ELS of the key word חלול, meaning the skip. Here skip is a short form for the concept Equidistant Letter Sequence (ELS) whose
basic property is the skip of its key word.

<table>
<thead>
<tr>
<th>The Gaon</th>
<th>מגן</th>
<th>From Vilna</th>
<th>מילן</th>
</tr>
</thead>
</table>

Figure 7 shows the table of the Gaon from Vilna. With expected number of ELS set to 10 and searching in the ELS random placement text population of the Five Books, the probability that a monkey text would have as compact table as the one shown here is about .0038.

If we add the key word נשל, for 736 which designates the year 5736, the year in which the revealing of the Torah Codes was begun on high, the table of Figure 7 extends to the table of Figure 8. Using the linked protocol with expected number of ELSs set to 10, maximum row skip set to 5, and the ELS random placement monkey text population associated with the Five Books, the probability that a monkey text would have as compact a table as that shown in Figure 8 is .0036.
Figure 8 shows the same ELS of **Torah Code** as that shown in Figure 5 with a neighboring ELS of **The skip**, meaning the skip. The code cylinder size is 13. Using the linked protocol with expected number of ELSs set to 10, the probability of ELSs of these two key words occurring by chance in a table as small as this one is about .0036.
<table>
<thead>
<tr>
<th>The skipping</th>
<th>תודלות</th>
<th>of Torah</th>
<th>תשירים</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>צפור</td>
<td>(5)736</td>
<td>תשל</td>
</tr>
</tbody>
</table>
Figure 11 shows a table on a cylinder size of 2034 built around the name of the author of the Zohar, Shimon Ben Yochai. The probability that ELSs of the key words Rashbi and Zohar would appear in a 9 row by 29 column window centered around this ELS for Ben Yochai is .00015.

The most famous interpreter of the Zohar is Rabbi Isaac Luria, know as “the Lion.” The table shown in Figure 12 is the most compact table with the terms for Zohar, Kabbalah, Luria, and the Lion. Using a 1D protocol with expected number of ELSs set to 30 and searching Genesis with key words Luria, Kabbalah, and the Lion, the probability that a table as compact as the first line of the table in Figure 12 would occur by chance is 11/100,000. Using our standard 2D search with the expected number of ELSs set to 30, the probability that a monkey text from the ELS random placement population of Genesis would have a more compact table is .00066. As a bonus we find a nearby ELS for the Lion. Notice that this table occurs in the same text area as the table for the Zohar and Rabbi Shimon ben Yochai.

Figure 12 shows a compact table with the terms for Zohar, Kabbalah, Luria, and the Lion. The table is on a cylinder of 266 columns.

The most famous student of the Ari is Rabbi Moshe Cordovero. Remarkably a compact table with exactly the key words Rabbi Moshe and Cordovero occurs in the same place as the tables for Rabbi Shimon ben Yochai and the Ari. Using a protocol with the expected number of ELSs set to 30 and searching Genesis, the probability that a table as compact as this would have arisen by chance is .0049. This is shown in
Figure 13 shows the most compact table on a cylinder of 1097 columns with the name Rabbi Moshe Cordovero. Using a protocol with the expected number of ELSs set to 30 and searching Genesis, the probability that a table as compact as this would have arisen by chance is .0049.

Figure 14 brings together in the same table many of the ELSs of the tables in Figure 12 and Figure 13. Setting the expected number of ELSs to 30, the probability that a monkey text in the random ELS placement text population of Genesis would have as compact table as this one is .00107.

Because of the different skips involved in the ELSs of these last three tables, even though the ELSs all occur in the same text location, they all cannot be shown in the same table. In the table of Figure 14 we

<table>
<thead>
<tr>
<th>Rabbi Moshe</th>
<th>רבמי משה</th>
<th>The Ari</th>
<th>הארי</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cordovero</td>
<td>קורדובה</td>
<td>Zohar</td>
<td>צוהר</td>
</tr>
<tr>
<td>Isaac</td>
<td>ייטק</td>
<td>Kabbalah</td>
<td>קבלה</td>
</tr>
<tr>
<td>Luria</td>
<td>לוריא</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
show the combined table for the Ari and for Rabbi Moshe Cordovero. With a protocol with expected number of ELS set to 30 and searching Genesis, the probability that a table as compact as this would arise by chance is .00107.

Now we move on to the Vilna Gaon. The Vilna Gaon wrote that the Torah references him in Deuteronomy at the end of Parshat Ki Seitzei. In chapter 25 verse 15 are the words, אב ב שלם, which the Vilna Gaon interprets as א, for Eliyahu, ב son of; and ש למה, Solomon. Because this word sequence occurs in the story of Amalek, The Vilna Gaon stated that one of his missions was to fight Amalek. It is interesting that the א of אב is the א of an ELS, Eliyahu, with skip -26.

Probably the most natural way of referring to the Vilna Gaon in Hebrew is מובילא. His date of birth is the 15th of Nisan, ב-ה ניסן. Using a search protocol with expected number of ELSs set to 10 and searching in the book of Genesis, the most compact table containing ELSs of these two terms is shown in Figure 15. The probability that such a compact table would happen by chance is 34.5/100,000.

<table>
<thead>
<tr>
<th>The Gaon</th>
<th>מובילא On 15th of Nisan</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Vilna</td>
<td>מובילא</td>
</tr>
</tbody>
</table>

Figure 15 shows the most compact table of the Vilna Gaon on a cylinder is 1632 columns. It not only contains the ELSs for מובילא, The Gaon from Vilna, but it also has his birth date of the 15th of Nisan, ב-ה ניסן. The probability that a table as compact as this would arise by chance is 34.5/100,000.
Given the Vilna Gaon’s own comments about his relationship with Amalek, it is interesting that we find in the table of Figure 16, which has the place the Vilna Gaon identified as referencing him, the name הנאון רבי אליעזר, HaGaon Rabeinu Eliyahu, exactly in the verse telling about how the Israelites were winning the battle against Amalek while Moses lifted up his hand.

"It happened when Moses raised his hand Israel was stronger, and when he lowered his hand Amalek was stronger."\(^{60}\)

Searching in Exodus with the expected number of ELSs set to 10, the probability of a table arising as compact as this one is 34.5/100,000. (The term for our rabbi, רבי, was not included as an \textit{a priori} term when making the probability calculation.)

<table>
<thead>
<tr>
<th>The Gaon</th>
<th>From Vilna</th>
<th>Our Rabbi</th>
</tr>
</thead>
<tbody>
<tr>
<td>חנהון</td>
<td>מוליולה</td>
<td>אליוהל</td>
</tr>
<tr>
<td>רבי</td>
<td>הנרא</td>
<td>ערי אליוהל</td>
</tr>
</tbody>
</table>

Figure 16 shows the most compact table of the Vilna HaGaon along with the designations of HaGra and his first name Eliyahu. Both alternative Hebrew spellings of \textit{from Vilna} are found here too. Searching in \textit{Exodus} with the expected number of ELSs set to 10, the probability of a table arising as compact as this one is \(34.5/100,000\). The term for our rabbi, רבי, was not included as an \textit{a priori} term when making the probability calculation.

\(^{60}\)Exodus 17:11.
After Joseph became governor of Egypt, the famine drove his brothers to come to Egypt to get food. Joseph recognizes his brothers and treats them roughly, suggesting that they are spies. They reply,

_We are all sons of one man, we are upright men, your servants have never been spies._

This verse “we are all sons of one man” indicates according to the commentators that Moshiach ben Yoseph will gather all the dispersed of Israel. This is also what the Vilna Gaon himself understood as his own destiny.

A few verses after the appointment of Joseph, who Pharoah gave the title of _מַמֵּץ פְּעָנָה_ in its minimal letter skip in the whole Five Books. This is illustrated in Figure 17. In addition, this table has an ELS for Moshiach ben Yoseph, _קָדָשׁ_ , and _כָּרְת_ , all of which are are connected with Torah Codes. The Vilna Gaon said that the name _מַמֵּץ פְּעָנָה_ indicates that the destiny of Moshiach ben Yoseph is to reveal the hidden secrets of the Torah.

<table>
<thead>
<tr>
<th>Moshiach</th>
<th>מַמֵּץ</th>
<th>Crown</th>
<th>כָּרְת</th>
</tr>
</thead>
<tbody>
<tr>
<td>Son of Joseph</td>
<td>בָּנָי</td>
<td>Torah Code</td>
<td>מַמֵּץ פְּעָנָה</td>
</tr>
<tr>
<td>Holy</td>
<td>קָדָשׁ</td>
<td>מַמֵּץ</td>
<td></td>
</tr>
</tbody>
</table>

Figure 17 shows the minimal skip table for the phrase _מַמֵּץ פְּעָנָה, Torah Code_. The probability that a monkey text would have ELSs for _מַמֵּץ פְּעָנָה_ or _בָּנָי_ as close to these is about .00195. The ELSs of _קָדָשׁ_ and _כָּרְת_ are not statistically significant in this table.

The connection between the _holy language_ and _Joseph_ is further illustrated in the table of Figure 18. The connection between _Torah Codes_ and _Joseph_ is illustrated in the table of Figure 19. The probability that a monkey text in the ELS random placement text population would have an ELS of _בָּנָי_ as close to the ELS of an 8 row by 5 column window is about .005. The table of Figure 19 shows two additional non _a priori_ words, _word of God, א-ר-בֶּר_ , that are relevant to the teaching. The connection between _Joseph, הבָּנָי, and the secret of the language, הבָּנָי, is shown in Figure 20. When _דָּו, secret, is_
written out fully as קִזְּרָה תְּהֵר, its full gematria is 566. In the book קִזְּרָה תְּהֵר we read that this is the gematria of Moshiach ben Yoseph, מֶשֶׁחָה בֵּן יִטְשָׁף. We also have an ELS of Crown, כָּרָן, which is the dominant sefirah in the World of Emanation, עולמות האצלאות. The World of Emanation is where the secret (סוד) is.

<table>
<thead>
<tr>
<th></th>
<th>אֶפֶן</th>
<th>Joseph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holy Language</td>
<td></td>
<td>لשׁ קדוש</td>
</tr>
</tbody>
</table>

Figure 18 shows the additional connection that the holiest language, קִזְּרָה תְּהֵר, has to קִזְּרָה תְּהֵר, Joseph. The probability that a monkey text would have as many ELSs of קִזְּרָה תְּהֵר and קִזְּרָה תְּהֵר as close as they are to an ELS of קִזְּרָה תְּהֵר is about .0223.

<table>
<thead>
<tr>
<th>Torah Code</th>
<th>קִזְּרָה תְּהֵר</th>
<th>Word of</th>
<th>דַּבָּר</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph</td>
<td>קִזְּרָה תְּהֵר</td>
<td>קִזְּרָה תְּהֵר</td>
<td>גֵּדַּה-ה</td>
</tr>
</tbody>
</table>

Figure 19 shows a table illustrating a close meeting between the ELSs of קִזְּרָה תְּהֵר, Torah Codes and קִזְּרָה תְּהֵר, Joseph. The probability of a monkey text having an ELS of קִזְּרָה תְּהֵר as close to this ELS of קִזְּרָה תְּהֵר in an 8 row by 5 column window is about .005.
Figure 20 shows the connection between ידיעת ותיבה, in the secret of the language; ויסף, Joseph; כתר, crown and קדש, holy. The table is on a cylinder size of 396 columns. The probability that a monkey text would have as close association between the ELSs of ויסף, Joseph; כתר, crown; and קדש, holy, with the ELS of ידיעת ותיבה as found in this table is .0215. Noticed a posteriori in the table is an ELS of אמת, truth.
Figure 21 shows the meeting between the ELSs of בساء לשו, *the secret of language*, and יסח, *Joseph*. This table by itself is not statistically significant. However, we show it because it is an instance of *multiple encoding*. Multiple encoding means that the less statistically significant tables are less significant by themselves, taken in isolation, but in conjunction with the main tables they become significant. Methodologies for measuring this kind of significance are currently being researched.

The table of Figure 22 shows the close connection between the *language of man*, לשו איסח, and the *language of God*, לשו גוד, and *Torah Code*, זירפ תורא. The Torah Codes are in the language of man and the language of God.
Figure 22 shows the close connection between the *language of man*, the *language of God*, and *Torah Code*. The table is on a cylinder of 539 columns. The probability that a monkey text will have ELSs of יִשְׂרָאֵל בלשון אִיש, and *there is in the language of man*, and אַלפִּי תּוֹרָה, *Torah Code*, in as close a meeting as in this table is about .000385. The probability that a monkey text will have as many ELSs of the supporting words אַלפִּי, code, בלשון, language, and ה-ה-וֹ-יִי, *great name of God*, in a 19 row by 14 column window as in this table is .0015.
Chapter 8
The World Trade Center: The Twin Towers

On Tuesday, September 11, 2001 at 8:46 AM EST a hijacked American Airlines Flight 77, a Boeing 757, carrying 92 people from Boston to Los Angeles crashed into 2 World Trade Center, the north tower. At 9:02 AM EST a hijacked United Airlines Flight 175, a Boeing 767, carrying 65 people from Boston to Los Angeles crashed into 1 World Trade Center, the south tower. Forty eight minutes later at 9:50 AM the south tower collapsed. At 10:29 AM, the 2 World Trade Center, the north tower collapsed. At 5:25 PM, 7 World Trade Center collapsed.

Figure 1 shows the Twin Towers of the World Trade Center standing proud and tall before September 11, 2001

When the fully loaded jetliners crashed into the buildings, orange fireballs of jet fuel erupted from the
crash location. Black and gray clouds enveloped the buildings. People ran to get out of the buildings. They were the lucky ones. Outside some people were crying, some screaming, others just sat on the ground in silent shock. Some of those who could not get down the staircases of the buildings jumped to their death in a 10 second fall that landed them on the ground at a speed of about 125 miles per hour. Others were crushed or burned alive within the buildings.

United Airlines 175 about to crash into the South Tower

The explosion after United Airlines 175 crashed into the South Tower

Both Towers burning. The Brooklyn Bridge is in the foreground.

Figure 2 shows the Twin Towers in the early hours of the attack.
The horrific disaster was all covered live. The TV anchors were grave as they described the horrendous sight. They hesitated in calling the first attack, the attack on the north tower, a terrorist attack. When the attack on the south tower occurred, it was clear that the New York City World Trade Center Twin Towers, the pride of the city, was struck down by terrorists. The world had just changed in a fundamental way. Nothing would ever be the same again.

Twin Towers in Hebrew is written as מנהלי התאומים and these two words are clearly an a priori choice of words. We set the expected number of ELSs to 10 and constrain the maximum row and column skip on the cylinder to be 10. The most area compact table in the Five Books having ELSs of these two words is shown in the table of Figure 3. This table is on a code cylinder of 36 columns. The probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have a more area compact table is about .0129. By our 2% significance level standard, we regard this as an unusual event.

By contrast, if the same pair of key words is used in an experiment in the Hebrew translation of War and Peace, the most compact table containing ELSs of the key words מנהלי התאומים is 25 rows by 27 columns and has a p-value of .469 when the maximum skip is set so that the expected number of ELSs is 10. And if the maximum skip is set so that the expected number of ELSs is 100, the most compact table is 18 rows by 10 columns and has p-value of .134. Clearly, nothing statistically significant is happening in War and Peace.

To see the degree to which this Twin Towers event is further encoded in the Torah we will consider two different a priori experiments. The first one is done by Professor Robert Haralick. He took the front page first topic sentence of the Israeli newspaper Maariv as the basis for his experiment.

On September 12, 2001, the 24th of the Hebrew month of Elul, the day after the September 11

62. The table shown by Professor McKay for the Twin Towers in War and Peace is not statistically significant. See url cs.anu.edu.au/~bdm/dilugim/drosninII.html.
attack on the Twin Towers, the Israeli newspaper *Maariv* writes in its first sentence:

*The biggest terror attack in history happened yesterday. Two hijacked airplanes exploded into the Twin Towers in New York and caused their collapse.*

Based on this *Maariv* topic sentence Professor Haralick selected in an *a priori* manner the seven key words given in the list of Figure 4 which shows the resulting p-values of experiments which use as key words מגדלי התאומים as well as each word in turn of the table in Figure 4. Continuing on in this fashion, Professor Haralick conducted experiments trying all possible $2^7 = 128$ subsets of the 7 key words of Figure 4. Each experiment was done in the Five Books. The maximum skip for each word is set so that the expected number of ELSs is 10 for each key word. The maximum column skip and maximum row skip permitted for each ELS is 10. The smallest p-value among all these 128 experiments was less than 1/10,000,000. Its table is shown in Figure 5. By the Bonferroni inequality the probability that one of the 128 experiments would yield a p-value as small as 1/10,000,000 is bounded above by $128/10,000,000 = .000128$. We conclude that the table in Figure 5 is statistically significant.

<table>
<thead>
<tr>
<th>English</th>
<th>Hebrew</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attack</td>
<td>מתקרד</td>
<td>.0000035</td>
</tr>
<tr>
<td>Terror</td>
<td>טרור</td>
<td>.0794</td>
</tr>
<tr>
<td>Airplane</td>
<td>מטוס</td>
<td>.000125</td>
</tr>
<tr>
<td>Explosion</td>
<td>התפוצץ</td>
<td>.366</td>
</tr>
<tr>
<td>Hijacked</td>
<td>חסוך</td>
<td>.0851</td>
</tr>
<tr>
<td>New York</td>
<td>ניו יורק</td>
<td>.439</td>
</tr>
<tr>
<td>Collapsing</td>
<td>קריסים</td>
<td>.00127</td>
</tr>
</tbody>
</table>

Figure 4 is a list of the seven main words in the *Maariv* topic sentence other than מגדלי התאומים. Each one of these seven words is successively grouped with the key word pair מגדלי התאומים, מגדליattaoms. The P-value column of the table gives the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have a more area compact table than that found in the Torah text.
Twin Towers | מגדלי התאומים
---|---
Airplane | מטוס
Attack | מתקפת

4/19:22
4/20:01
4/20:02
4/20:03
4/20:04
4/20:05
4/20:06
4/20:08
4/20:09
4/20:10
4/20:11
4/20:12

Figure 5 illustrates an *a priori* table formed from the *a priori* axis terms מגדלי התאומים and then from the supporting terms מטוס, מתקפת. The probability that this table would arise by chance in the ELS random placement text population is less than 1/10,000,000. Since for Professor Haralick it was part of a big experiment having 128 sub-experiments, the p-value of the big experiment is bounded above by 128/10,000,000. Since for Professor Rips it was part of a big experiment have 42 sub-experiments, the p-value of the big experiment is bounded above by 42/10,000,000.

Our second *a priori* experiment was done by Torah Code researcher Professor Eliyahu Rips. He went through the September 12th article from the front page Maariv newspaper and selected three groups of words: the most relevant nouns, the proper names, and other relevant nouns. Figure 6 shows the Maariv front page. His selection of relevant nouns is colored red, proper names in blue and other relevant nouns in green. His group of relevant nouns includes *attack*, מתקפת, *terror*, טור; *airplanes*, מטוסים; *airplane*, מטוס; *twin*, מגדלי, *towers*, התאומים. He tried all possible combinations using four, five, or six of these nouns under the constraint that the nouns must include מגדלי התאומים, Twin Towers, and not both מטוסים, *airplane*, *airplanes*. Figure 7 lists these combinations. The expected number of ELSs is set to ten and the experiment is performed in the Five Books and in each of the individual Five Books. The total number of experiments is then the 7 combinations times the 6 texts. The smallest p-value among the 42 experiments was 1/10,000,000 and arises from the combination of the four key words מגדלי התאומים, מטוסים, מתקפת, מגדלי התאומים, *airplane*, *airplanes* in the book of Numbers. Using the Bonferroni inequality, an upper bound
Figure 6 shows the Maariv front page and the *a priori* selection of key word sets made by Professor Rips. The most relevant noun set are colored red, the proper nouns are colored blue, and the remaining relevant nouns are colored green.

on the p-value of the big experiment would then be 42 times the smallest probability. This results in 42/10,000,000 being the probability that a statistically comparable monkey text would have produced a table having ELSs of these four or more of the six most relevant key words with as small or smaller area
than the most compact table found in the entire Five Books or in each of the Five Books.

\[
\begin{array}{|c|c|c|}
\hline
\text{מנדל} & \text{תאומים} & \text{תור} \\
\text{אבוים} & \text{מסות} & \text{תור} \\
\text{זטו זן} & \text{תור} & \text{מסות} \\
\hline
\end{array}
\]

Figure 7 lists the seven combinations of the key word sets tried in the experiment by Professor Rips.

Professor Rips tried a comparable experiment with the proper nouns which included *Pentagon*, פנסון; *New York*, ניו יורק; *Bin Laden*, بن لادن; *Osama*, אסמה; *United States (US)*, ארצות הברית; *America*, אמריקה; *Pentsylvania*, פנסילבניה. The result was statistically not significant. And he tried a comparable experiment with the other relevant nouns which included, אסוס, חסן, ברבעון, חוסן, חיטות, אבל, פלטת אוס. This result also was statistically not significant. Since he tried three experiments with one succeeding with a p-value of 42/10,000,000, by the Bonferroni inequality an upper bound on the p-value of the total three experiments is 126/10,000,000.

The Twin Towers table of Figure 3 can further be developed by searching in the table, looking for letter sequences vertically, diagonally, or horizontally that constitute Hebrew words. The search is not interested in ELSs of any Hebrew words, but only those ELSs of words that are relevant to the topic. This development, called *snooping*, is commonly done by Torah Code researchers once an *a priori* basic table has been constructed. As mentioned earlier, this kind of development is not an *a priori* development and we attach no p-value to the developed table. However, just because we cannot say anything about the statistical significance of the resulting table does not mean that it is not significant in other relevant ways. For example, if a key word were really encoded and the developer did not guess the key word in an *a priori* manner for his experiment, then on the basis of the developer’s experiment, the developer cannot conclude that the key word was encoded. Snooping, however, can provide some informal sense of additional words that the developer might have been able to conclude were encoded, had the developer

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63. If a search is done on the internet to find Torah Code tables shown on web sites, it will be easy to find tables developed by snooping and for which the developer attaches a probability that assumes the snooped words are *a priori*. Probabilities calculated from snooped words that are assumed *a priori* do not mean what they are suppose to mean. Compounding this is the problem that even if the key words were *a priori*, the methodology by which the probability calculation in itself is done is not a correct methodology. Statements of small p-values, like $10^{-50}$, that can be found on such web sites are just nonsense.
<table>
<thead>
<tr>
<th>Key Word</th>
<th>Skip</th>
<th>Hebrew</th>
<th>Key Word</th>
<th>Skip</th>
<th>Hebrew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twin</td>
<td>71</td>
<td>ת استراتيجים</td>
<td>Judgment</td>
<td>4</td>
<td>דיר</td>
</tr>
<tr>
<td>Towers</td>
<td>36</td>
<td>מנדלי</td>
<td>Before their eyes</td>
<td>1</td>
<td>לעיניו</td>
</tr>
<tr>
<td>Twice</td>
<td>1</td>
<td>פעמים</td>
<td>With airplane</td>
<td>33</td>
<td>במכס</td>
</tr>
<tr>
<td>Death there</td>
<td>1</td>
<td>موت שס</td>
<td>Collapse</td>
<td>39</td>
<td>תופל</td>
</tr>
<tr>
<td>New</td>
<td>2/3</td>
<td>כדי</td>
<td>In the city</td>
<td>1</td>
<td>ביאר</td>
</tr>
<tr>
<td>York</td>
<td>287</td>
<td>יירק</td>
<td>Destroyed</td>
<td>142</td>
<td>נשמדים</td>
</tr>
<tr>
<td>Be collapsed</td>
<td>36</td>
<td>מתמסט</td>
<td>Death grave there</td>
<td>1</td>
<td>موت כבר שס</td>
</tr>
<tr>
<td>From Islam</td>
<td>72</td>
<td>מהאספסל</td>
<td>Will be destroyed</td>
<td>1</td>
<td>תכלת</td>
</tr>
<tr>
<td>And struck</td>
<td>1</td>
<td>ייד</td>
<td>Will be crushed</td>
<td>75</td>
<td>תרסק</td>
</tr>
</tbody>
</table>

Figure 8 shows a development of the main part of the Twin Towers table of Figure 5.
guessed them in an \textit{a priori} manner.

The developed table is shown in Figure 8. We find in the text around the \textit{a priori} table ELSs of the key words: from the Islam, will cause to collapse, destroyed, died there, death there, hit and in the city. In the table is a symmetric form of judgment occurring twice, once for each tower. Various sentences can be formed from the words in this table. For example,

Death there before their eyes in the city of New York by airplane twice.

One of the key words that occurred in the \textit{Maariv} topic sentence was from the root קרס to \textit{collapse}. Its ELS did not occur in the first table. But it is actually present in this location. To see it we must put the text on a code cylinder of 18 columns. Then we will see not only the verb קרס meaning \textit{collapsing}, but also the verb ממסס meaning \textit{melting} and ממסס meaning \textit{were melted}. The table of Figure 9 shows the result.

<table>
<thead>
<tr>
<th>Twin</th>
<th>ממסס</th>
<th>Melt</th>
<th>ממסס</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collapsing</td>
<td>קרסס</td>
<td>Were melted</td>
<td>ממסס</td>
</tr>
</tbody>
</table>

Figure 9 shows a table with same ELS of the key words מגדלי התאומים, twin towers, and associated ELSs of words meaning \textit{collapsing}, \textit{melting}, and \textit{were melted}.
The collapse of the Twin Towers resulted in a scene that became known as *Ground Zero*. This is encoded and shown in the table of Figure 10; images of Ground Zero are in Figure 11. The probability that a text from the ELS random placement text population would have at least one ELS of נפל and על פניםם in a 13 row by 30 column window around the axis terms is .012.

<table>
<thead>
<tr>
<th>Twin Towers</th>
<th>מנדלי התאומים</th>
<th>They fell</th>
<th>נפל</th>
<th>קומת</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground</td>
<td>נפל</td>
<td>And they fell</td>
<td>קומת</td>
<td>על פניםם</td>
</tr>
<tr>
<td>Zero</td>
<td>On their faces</td>
<td>נפל</td>
<td>קומת</td>
<td></td>
</tr>
</tbody>
</table>

Figure 10 shows a table showing ELSs of קומת אפס, *ground zero* around the axis terms Twin Towers. The probability that a text from the ELS random placement text population would have at least one ELS of נפל על פניםם and נפל in a 13 row by 30 column window around the axis terms is .012. Also noteworthy are the non *a priori* terms נפל, *they fell*, and the phrase directly in the text על פניםם, meaning *and they fell on their faces*. 

99
Figure 11a shows images of Ground Zero by day soon after the collapse of the Twin Towers. The name Ground Zero is self-explanatory from the images.

Figure 11b shows images of Ground Zero by night soon after the collapse of the Twin Towers. The name Ground Zero is self-explanatory from the images.

**Spiritual Commentary on the Twin Tower Disaster**

Those immediately responsible for the attack on the Twin Towers were Arab terrorists. They are fully liable for their actions. For the sake of civil society, the safety of its citizens and the preservation of its property, they and their terrorist organization must be sought out and eliminated. This is one level. There is another deeper and more spiritual level. Whatever happens to us, happens to us through the agency of God. The whole earth is full of His Glory. There is no other power besides God. From this point of view we must regard the people who perpetrated the terrorist act as accomplishing something God wanted to accomplish. Therefore, there is a Torah lesson God is teaching here as there is a Torah lesson that God is
teaching through all the events in our lives. To understand the Torah lesson, we must first try to understand the attack on the World Trade Center and its Twin Towers in terms of what they represented.

The World Trade Center was the heart of Wall Street, the U.S. financial capital. It housed numerous international and U.S. investment banks, and the brokerages, law firms and service companies that support and surround them. Morgan Stanley was the biggest tenant, taking up 21 floors of 2 World Trade Center with retail brokerage operations. Japan's biggest banks were tenants, the trust operations of Dai-Ichi Kangyo Bank and Chuo Mitsui. Fuji Bank & Trust operated on four floors in 2 World Trade Center. Asahi Bank Ltd. had 94 employees in its New York branch on the 60th floor of 1 World Trade Center. Korean brokerages Hyundai Securities and LG Securities had offices in 1 World Trade Center, on the 84th and 78th floors respectively. An office of the U.S. subsidiary of Charoen Pokphand, one of Thailand's largest conglomerates, was on the 21st floor of 2 World Trade Center. Keefe, Bruyette & Woods, a leading investment bank and prominent house for bank analysis, took up three floors in 2 World Trade Center. Credit Suisse First Boston had back-office operations in the Twin Towers. Besides financial companies, a large number of companies in other services, including engineering, architecture, law and transportation operated out of the Twin Towers.

We see that the World Trade Center was a symbol of man’s efforts to engage in trade and make money. On one hand, this involves great efforts of cooperation. On the other hand, it entails efforts to create greatness for man. Greatness for man in the secular world is concomitant with materialism and arrogance.

Facilitated communication is being used in thirty eight states of the United States and in many other countries throughout the world to enable nonverbal disabled people to communicate by striking the keys of a typewriter or a computer, or by pointing to letters on a language board. The facilitator gently supports their hands enabling them to reach the letters. This form of communication demonstrates the great knowledge of the spiritual aspects of the world that the nonverbal disabled people have.

Using facilitated communication a question was presented to Binyomin Goldin, an autistic person, regarding what message the destruction of the Twin Towers holds for the world. Binyomin’s answer was that “These towers were the greatest symbol of materialism for the United States and the entire world. Their collapse is only the beginning of the end of this world’s pursuit of materialism. This will be a gradual process which eventually will speed up. Now there will be a lull for a short period of time, to give us time to repent and to choose whether to trust in God, or whether, God forbid, to trust in man and his institutions. The collapse of the World Trade Center was the greatest divine warning that God is beginning to fix the world. This was not a natural occurrence. It was God revealing Himself. Therefore, we all must immediately distance ourselves from materialism and return to spirituality.”

Tower, in Hebrew is מגדל, a word with gematria 77. A tower helps man ascend from a low place to a place of higher vantage. Arrogance stems from wisdom misplaced. Wisdom is also a means by which a man can rise from a low place to a place of higher vantage. Wisdom misplaced helps man use a place of higher vantage for non-godly purposes. Wisdom in Hebrew is חכמה, a word with gematria 73. Add to 73 the four letters of the word חכמה to total 77 and we see the equivalence of מגדל and חכמה. So from this perspective the event of the attack on the Twin Towers represents an attack on the arrogance for which the Towers stood.

64. Rabbi Yehuda Srevnik, Secrets of the Soul, privately printed, Jerusalem, 2002.
There is a connection between the Twin Tower tables of Figures 8, 9, 10, and 12 and the text of the Torah running through the table. Examine the first row of the table labeled 4/20:11. This row has text from the verse in Book 4, Numbers, Chapter 20, verse 11 and contains the word twice, פעמים. The complete verse reads,

Then Moses raised his arm and struck the rock with his staff twice; abundant water came forth and the assembly and their animals drank.  

The Torah text describes the biblical event where the Israelites argued with Moses. The commentators tell us this meant that there were petty arguments amongst the Israelites. That is why the Torah tells us that there was no water. Water stands for Torah teaching. The Israelites were remiss in putting into practice the teachings of the Torah. Consequently, their lives were full of petty arguments and contentions among themselves. This spiritually reflected itself in arguments with Moses. These arguments so angered Moses that instead of speaking to the rock as God had told him, he lifted up his hand holding the rod and hit the rock twice with it. The hard rock, changed its nature and began to spout forth water. In a similar manner, the World Trade Center was like the rock. Its Twin Towers were struck twice. As the rock changed its nature and began to spout forth water, so the Twin Towers changed its nature and collapsed. Moreover, the United States began a new era with a changed set of priorities and international policies all designed to halt the arrogance of the Arabs.

Here we see yet another interesting relation between the Torah text and the key words in the table. The usual Hebrew phrase for Twin Towers is מגדל מגדל התאומים has the gematria 502. מגדל התאומים has the gematria 87. The gematria of the two totals 589, the gematria of מחלוקת meaning argument and dispute. Just as the Torah text writes about contention and petty arguments so at the World Trade Center there was contention and petty arguments about deals, trade, and money matters.

Notice how we see God throughout all the events. God chooses the nation connected to a specific sin to punish others for its commission. For example, Iraq-Babylonia, a nation connected with the sins of idolatry, destroyed the First Temple for the sin of idolatry committed by the Jews. Edom, a nation who was epitomized by arrogance, destroyed the Second Temple for the sin of purposeless hatred committed by the Jews. The Arab nations, who in their current state excell in arrogance, meted out punishment against the United States for its arrogance. The instrument which delivered the punishment is the rod, מצה, a word having the gematria of 54, the same gematria as the word דר, judgment, since it metes out judgment and then is judged itself. The actions of the United States as manifested in what United States forces did to the Taliban in Afghanistan and as manifested in what the United States forces did to the regime of Sadam Hussein in Iraq were actions that struck down arrogant regimes, just as the attack on the World Trade Center was a strike against the arrogance for which it stood.

We read in Isaiah 2:12-17:

65. Numbers 20:11.
For God, Master of Legions, has a day [for retribution] against every proud and arrogant person and against every exalted person -- and he will be brought low; and against all the lofty and exalted cedars of Lebanon and against all the oaks of Bashan; and against all the lofty mountains and against all the exalted hills; and against every tall tower and against every fortified wall; and against all the ships of Tarshish and against all the splendid palaces. Humankind’s haughtiness will be humbled and mens’ arrogance will be brought down; and God alone will be exalted on that day.

The skip intervals of key words and their relationships to the gematria of other words also help explain the underlying spiritual reason for the attack on the World Trade Center. The word מגדלי, towers, appears with a skip interval of 71. This corresponds to the 70+1 judges of the Sanhedrin to teach us that this was a divinely ordained punishment. Just as Jerusalem of above corresponds to the Jerusalem down below, the judgment of the Heavenly court corresponds to the judgment of the earthly court, a judgment carried out by the Arab terrorists.

The key word התאומים, twin, has a skip interval of $36 = 6 \times 6$, a square number which symbolizes the completeness of the sefirah Yesod, the sixth sefirah counting downward from the sefirah of Chessed. The word יתן means struck or smote. This is the verb the Torah text uses when it describes how Moses struck the rock. In addition to having the gematria 36 it splits up into the words י and the prefix י. The prefix י, gematria 6, stands for the staff which strikes, י, and reflects that Moses’ power to hit the rock was derived from the attribute of Yesod. י, 36, is written as the central letters in the word שלום, peace. The letter י according to Sefer Yetzirah symbolizes the element of fire, hubris, the trait of Edom, while the letter מ symbolizes desire, the trait of Ishmael. י, the sefirah of Yesod in the center of שלום guards these forces. But when the י, the attribute of Yesod is violated, מ unites with מ causing שמש, desolation and destruction.

Read what Minoru Yamasaki, the architect of the Twin Towers of the World Trade Center writes.

I feel this way about it. World trade means world peace and consequently the World Trade Center buildings in New York ... had a bigger purpose than just to provide room for tenants. The World Trade Center is a living symbol of man's dedication to world peace ... beyond the compelling need to make this a monument to world peace, the World Trade Center should, because of its importance, become a representation of man's belief in humanity, his need for individual dignity, his beliefs in the cooperation of men, and through cooperation, his ability to find greatness.

What spiritual attribute works against peace? We have already mentioned materialism and arrogance. Here, because we are discussing a defect in the sefirah Yesod, we are seeking the principal vice of Yesod, which is slothfulness. To have peace we cannot be lazy. We must constantly be working for it. When the work for cooperation is not enough, when we become too lazy, then we violate the sefirah Yesod, essentially deleting the י. The י of שלום then unites with the מ causing שמש, desolation and destruction.

66. Yesod, יסוד, means foundation.
The Emotional Responses in the Twin Towers Table

Now we turn to key words expressing the emotion people experienced who were nearby the Twin Towers disaster, who watched it on TV as it happened, or who heard and watched it later on the news. One emotion experienced by the people at the Twin Towers and particularly New Yorkers was crying. For the word cry, the Webster’s New Dictionary of Synonyms gives the synonyms cry, weep, wail, keen, whimper, and blubber. Checking these terms in the Alcalay English Hebrew Dictionary and weeding out inappropriate terms leaves the Hebrew terms bursts of crying, גזירת אבד; strong crying, בכי; crying, צער; lamenting, מצוקה; shouting, צועקה; screaming, ריעה; crying, קהה, laments, קינון; wailing, לילה; and mourning, אבל. Four of these ten possible supporting words, אבל, לילה, קהה, בכי, have ELSs in the table shown in Figure 8. They are shown in the table of Figure 12.

The probability that ELSs for as many as these words that occur in the Twin Towers table of Figure 8 would have occurred in a 15 row by 27 column window around the axis term מנדלי התאומים in a text from the ELS random placement monkey text population is .081.

<table>
<thead>
<tr>
<th>Crying</th>
<th>בכי</th>
<th>Wailing</th>
<th>לילה</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamentation</td>
<td>קינון</td>
<td>Mourning</td>
<td>אבל</td>
</tr>
</tbody>
</table>

Figure 12 shows the ELSs for wailing, lamenting and crying that are in the immediate window around the most compact arrangement of the ELSs for Twin Towers. This is in basically the same text area as the table of Figure 5.

Dr. Leib Schwartzman has discussed at one of the International Torah Code Society conferences that sometimes Torah Code tables have a question and answer format. If we ask the question: Who laments? מנדלי לילה? The answer would clearly be: The United States laments, אריה לילה. Figure 13 shows that there is a table exactly of this form and it occurs precisely in the same location as does the most compact
formation of the Hebrew words מנדלי תואמיס תואמיס מנדלי תואמיס Twin Towers. Given the placement of the axis ELSs for Twin Towers, the probability that a monkey text would have in this window a more compact arrangement of the of the ELSs for אראב ילו and אראב ילו is about 2/1,000,000.

Figure 13 shows the table asking Who laments and gives the answer the United States laments. Given the placement of the ELSs for the axis Twin Towers, the probability that a monkey text would have as compact formation as in this table is about .000002.

Another main reaction experienced by the people at the Twin Towers was fright, terror, fear, panic,Ẩaimה; sudden fear, terror, shock, panic, באיתה; fright, alarm, dismay, confusion, panic בחל hud; great fear, anxiety, trembling, horror, alarm, חרדה; horror, terror, trembling, חוה; struck dumb, אלס; and shock, חלד. Six out of these seven a priori chosen key words have ELSs that actually occur in the table. They are אסי, אלס, חלדה, באיתה, אמימה באיתה. Given the placement of the Twin Towers ELSs, the probability that a monkey text would have as many ELSs in this location as this table has is about .0215. The resulting table is shown in Figure 14.

All Americans were angry at the perpetrators of the Twin Towers disaster. There are a variety of terms in Hebrew for anger. They are: הסמ, הס, רנו, אונ, חור, רחוב, קפף. As shown in the table of Figure 15, we find three of these terms in the main Twin Towers table. Given the placement of the ELSs for Twin Towers, the probability that a monkey text would have as many ELSs as we have observed in this table in this location is .183.
<table>
<thead>
<tr>
<th>Fright, terror, fear, panic</th>
<th>אימה</th>
<th>Horror, terror, trembling</th>
<th>עעה</th>
</tr>
</thead>
</table>
| Sudden fear                | דעה  | Shock                    | חוס |}
| Fright, alarm, dismay, confusion, panic | ההלת | Struck dumb | אלס |

Figure 14 shows the table containing ELSs of the words for *terror, panic, shock, struck dumb* and *horror* in the same area as shown in the first table for the *Twin Towers*. Given the placement of the ELSs of *Twin Towers*, the probability that a monkey text would have as many ELSs as observed in the location of this table of the shock key words is about .0215.

The table of Figure 8 had symmetric ELS’s of **דלי**, judgment. Associated with this judgment is the harsh judgement of **銎/mitzva**, blazing anger of wrath. This is the judgment that we read about in the incident of the Golden Calf. Moses says that he

> was terrified of the wrath and blazing anger with which Hashem had been provoked against you to destroy you.

This verse is not so far from the verses of the table of Figure 16 which shows ELSs of **銎/mitzva**, blazing anger of wrath, and **ההלת/hallat**, fright. **mitzva** is the constructive form of the feminine noun **המוה/moham**. The *Arizal* explains that **銎/mitzva** and **המוה/moham** constitute the two harsh judgments. According to the Gemara, these are the two tears that God drops onto the big sea. The Ben Ish Chai explains that these two tears are the two forces **銎/mitzva** and **המוה/moham**. **銎/mitzva** is the name of the feminine angel called Blazing Anger. **銎/mitzva** is the name of the masculine angel called Wrath. When Lillith, **ليلית/leilet**, and Samael, **סמאלאl/samal**, are acting with destructive force they are called **המוה/moham** and **銎/mitzva**. The combined *gematria* of **לילית/leilet** and **סמאלאl/samal** is 611. This is the *gematria* of

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68. Deuteronomy 9:19.
70. Ben Ish Chai, *Ben Yehoyadah*, Jerusalem, 5725, pg. 52.
וְהָדָר, Torah, and is the skip of the ELS שִׁמְתָּא, and the cylinder size, in our table that has nearby them another set of ELSs for the Twin Towers.

<table>
<thead>
<tr>
<th>Strong Anger</th>
<th>חֲנוֹם</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fury</td>
<td>שלם</td>
</tr>
<tr>
<td>Burning Anger</td>
<td>גֶּהֶר</td>
</tr>
</tbody>
</table>

Figure 15 shows a table having the ELSs for the reaction of anger at the Twin Towers. Given the placement of the ELSs of Twin Towers, the probability that a monkey text would have as many ELSs as observed in the location of this table of the shock key words is about .0215.
<table>
<thead>
<tr>
<th>Fright, alarm, dismay, confusion, panic</th>
<th>חבלת</th>
<th>Twin Towers</th>
<th>מנדל הזאפוסים</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blazing anger  (of)</td>
<td>חמה</td>
<td>Wrath</td>
<td>אング</td>
</tr>
</tbody>
</table>
suicide/homicide bombers, the terrorism of the Madrid train bombs, and the terrorism carried out every day in Iraq, that we are in the period of the beginning of the End of Days.

The table of Figure 17 has an ELS of the phrase End of Days, with an ELS of Twin Towers. The table begins with the verse of God talking to the children of Israel,

I call heaven and earth to bear witness against you this day,\(^{74}\)

The minus 1 skip ELS for End of Days arises from the first of heaven, and continues until the of earth, Twin Towers. Just as heaven and earth are twins, so are the twins of Twin Towers. The table ends with the verse of God talking to the children of Israel,

Or has any god miraculously come to take for himself a nation from the midst of another nation, with trials, by signs, and with wonders and with war, and with a mighty hand, and with an outstretched arm, and with great terrors\(^{75}\), comparable to all that the Lord your God did for you in Egypt before your eyes?\(^{76}\)

The phrase, here translated as, and by great terrors is towers. Notice that starting from the final of and continuing for the next four letters there results the ELS for towers. This verse is not only speaking of the time when God took the children of Israel out of the bondage of Egypt, but it is also speaking of our time, a time when God will take the Jews out of exile. This time is the End of Days.

In Egypt the children of Israel were enslaved. The meaning of the phrase land of Egypt, is the land of constraint and constriction. This is derived from the root meaning to bound or limit. To be in Egypt is to be spiritually limited and constrained. Similarly, to be in exile is to be spiritually limited and constrained. To be taken out of exile is to be taken out of a state of being spiritually limited and constrained.

It is interesting that the phrase and with great terrors has one sense in the verse and has a different but parallel sense in our interpretation that this verse is also speaking about the terror that will be in the End of Days. And what purpose does this terror have? That through our own senses, we can come to understand that all this is orchestrated by God. We will not just believe in God and His rule, we will know it. We read prophetically in a few verses preceding this one, and in the second row of the table of Figure 17,

When you are in distress and all these things have befallen you, at the end of days, you will

\(^{74}\)Deuteronomy 4:26.  
\(^{75}\)miracles that instill awesomeness, reverence, and fright  
\(^{76}\)Deuteronomy 4:34.
return unto the Lord, your God, and hearken to His voice.\textsuperscript{77}

This verse describes our time. Our time is the End of Days.

Setting the expected number of ELSs to 10, the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have as compact a table containing ELSs of the \textit{a priori} words \textit{#End of Days#} and \textit{#Mendelsomenim#} as shown in Figure 17 from the Torah text is .0003.

The table of Figure 17 can be further developed as shown in Figure 18. The word \textit{#Babylon#}, terrorist, is embedded almost completely within the word \textit{#Babylon#}. Also note that below \textit{#End of Days#}, towers, is \textit{#Babylon#}, recalling for us the story of the Tower of Babylon, a tower that was built to war against God.

Figure 17 shows ELSs for the \textit{End of Days} by \textit{Twin Towers}. The probability that a table as compact as this would arise by chance in a text in the ELS random placement monkey text population is .0078.

<table>
<thead>
<tr>
<th>Twin Towers</th>
<th>.getEnd of Days</th>
<th>בבל</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrorist</td>
<td>תerrors</td>
<td>בבל</td>
</tr>
</tbody>
</table>

Figure 18 shows ELSs for the \textit{terrorist} and \textit{Babylon} in the same area as ELSs for \textit{End of Days} and \textit{Twin Towers}.

The \textit{gematria} of the word \textit{#twin#}, twin, is 502. The \textit{gematria} of \textit{Yishmael}, who stands for the Arab world, is 451. The \textit{gematria} of \textit{Edom}, which stands for the Western Christian World, is 51. Notice that 502 = 451+51. Twin can also be interpreted to mean Yishmael and Edom. This suggests that the destruction of the Twin Towers marks the beginning of the final war between Yishmael and Edom.

\textsuperscript{77}Deuteronomy 4:30.
This is the war of Gog and Magog that will be happening at the End of Days, at the time of Moshiach. During the war of Gog and Magog, which will occur on the holiday of Sukkot, God will destroy the twin powers of Yishmael and Edom in a parallel way that the Twin Towers were destroyed. It is interesting that the holiday of Sukkot, also has the gematria of 502.

Genesis 16:11 tells us that God told Hagar that the name of her son who was about to be born should be Yishamel, a name that literally means God will listen. In order to understand the underlying meaning of this name we must understand one of the purposes hidden by the Creator behind the bad things that happen to each of us. One possible purpose is to arouse us to Teshuvah, repentance: to break out of our rut and improve our lives, in accordance with Torah. When suffering and oppression come upon a person, he is liable to abandon his ingrained routine, take a step back, and ask himself whether he has not perhaps been doing something wrong. After all, God does everything justly; so if something bad happens to us, that is a sign from Heaven that either we are ready to advance to the next spiritual level, a step closer to God, by acting with special virtue, or that we need to rectify our behavior. God does not punish His creatures. God is always benevolent, always teaching Torah -- to all people. So when we experience suffering or oppression it is not a punishment; rather it is a situation that God gives us to either manifest a virtue to a level we have not yet brought into existence or to bring us back to the right path. When we suffer we open ourselves to God and that is why the Torah says about Yishmael, for God has heard your suffering.

If we compute the full gematria of Yishmael, we obtain 20+360+80+130+111+74 = 775. Add one for the Kollel to obtain 776. This is the gematria of שוב אליך ותשובו אלהים, Return, O wayward children from the verses.

If we compute the full gematria of Yishmael and Yishmael, we obtain 20+360+80+130+111+74+20+360+80+130+111+74 = 1552. Add one for the Kollel to obtain 1553. This is the gematria of שוב אליך ותשובו אלהים, Return, O wayward children from the verses.

Return to Me and I will return to you

Return, O wayward children

All the nations of the world have the Divine task of awakening Israel to Teshuvah through the torments they inflict. Of them all, the ones who play the chief role, particularly in the time of the End of Days are Yishmael and his descendents, the Islamic nations.

The Midrash explains that the name Yishmael expresses something about the future rather than as a memorial of some person or event of the past. Yishmael is destined to oppress Israel, causing their prayers to come before God and be heard. God’s purpose in creating the Islamic nation was to bring about Israel’s

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78. Repentance is not the only purpose. There are others, for example, to give a person the opportunity to go through an experience which arouses in them a level of virtuous action not heretofore manifested.

79. Genesis 16:11.


We can learn further about the character of Yishmael from what God says to Hagar about her son Yishmael:

\[\text{And he will be a wild-ass of a man, his hand against every man, and every man's hand against him, and in face of all his brethren will he dwell.}\]

The Hebrew phrase translated here as wild-ass of a man is שֵׁרוֹר. Nachmanides, commenting on this phrase says that “he will devour all and be devoured by all.” Onkelos translates שֵׁרוֹר as untameable. Ibn Ezra says,

An image of unrestricted freedom among men; he would not submit to the rule of strangers, and would take what he wished by brutal force.

Hirsch says,

The whole fundamental character of social life of the Ishmaelites is described by one word שֶׁרוֹר, [untameable] in the face of all his brethren. The expression in the face of often has the meaning of being contrary to, standing in the way of, limiting or hindering the point of view and tendency of others. So here too, he will quietly take up and maintain his position in spite of all his brothers. Nobody will be his friend and still nobody will dare to oppose him.

On the last part of this verse Nachmanides says:

The subject pertains to his children who will increase and they will have wars with all the nations.

This is consistent with the verses from the Koran, where idolaters mean all those who do not believe in Allah:

Kill the idolaters wherever you find them, take them captive, lay siege to them and lie in wait for them at every place of ambush.
Figure 19 shows the connection between מגדל התאומים, Twin Towers, and יישמעאל, Yishmael. The location is the same as the table of Figure 3 but shown on a code cylinder of 12 columns.
Fight them, may God punish them by your hands and put them to shame and give you victory over them.\textsuperscript{89}

Bin Laden, the perpetrator of the attack on the Twin Towers said,

We should fully understand our religion. Fighting is a part of our religion and our Shari’a.\textsuperscript{90}

The full \textit{gematria} of Gog and Magog, גוג ומגוג, is obtained by spelling out each of the letters and taking the \textit{gematria} of the result. The \textit{gematria} of גוג ומגוג is 451, the \textit{gematria} of Yishmael, ישמעאל.

Look in the Torah Code table of Figure 20. This is the same text as the table of Figure 5, but brought out on a code cylinder of 12 columns to show how ישמעאל, Ishmael, and מאסאלו, from Islam is situated right in the middle of Twin Towers. Directly in the Torah text is the phrase מפל על פניהם, They will fall on their faces. This phrase has a double meaning. Not only does it mean that those in the Twin Towers will fall on their faces, as happened when many jumped out of the windows to their death rather than stay in the inferno and burn to death. But it also means that those who are Ishmael, from Islam, will fall on their faces at the time of Gog and Magog.

\begin{center}
\begin{tabular}{|c|c|c|}
\hline
Twin Towers & מנדלי התאומים & New York & רומא \\
\hline
In the city of & בוליר & Rome & \\
\hline
\end{tabular}
\end{center}

\begin{center}
\textbf{Figure 20 shows the relationship between Twin Towers, מנדלי התאומים, Rome, and the city of New York, בוליר ני ייקס.}
\end{center}

The Zohar at the end of its discussion on Parashah Balak, says “three higher walls will fall from the city

\textsuperscript{89} Koran 9 (al Tawba): 14.

\textsuperscript{90} Time Magazine, January 11, 1999.
of Rome and the great palace (which is there) will fall.” The usual translation of "Rome" is Rome. But to understand to what city the Zohar is referring we must use the inner gematria. The inner gematria is computed by taking the gematria of each of the spelled out letters of the word, with the first letter of the spelling of each letter omitted. So for Rome the inner gematria is $\text{רומא-י} \times (\text{י}) = 376$. This gematria is the same as New York, (ע"ש וי-ירך). The table of Figure 20 is the same text as in the table of Figure 3. It shows right next to the Twin Towers with the of twin being the final מ of המ, twin. The i of new-ي is the i of מ. The ELS of in the table of Figure 20 is the same as the ELS in our first table on the Twin Towers shown in Figures 3, 5, 7 etc.

Rabbi Earl David, author of Code of the Heart, notes that there is a gematria connection between the Twin Towers, מַגַּלְגָּלִים, and the verb shall burn, שורץ. Both have gematria 590. The verb occurs in the verse discussing the fundamental law of the completely red cow, the פרה אדומהlemen.

Then he burns the cow before his eyes, its skin and its flesh and its blood with its dung shall he burn.

The ashes of the completely red cow were put in water and some drops of this water-ash mixture was sprinkled on a person who had become contaminated (the most severe contamination) because he touched a dead body, typically in preparation of or in the process of the burial of the corpse. The sprinkling purified the contaminated person and paradoxically contaminated (with a less severe contamination) the priest who did the sprinkling. The sprinkling had to done on the third and the seventh day.

Interestingly enough, the Twin Towers were attacked on the third day, Tuesday September 11, 2001.

The gematria of Esav and Yishamel, ע"ש ישמואל, is 833. Rabbi David notes that the gematria of the completely red cow, פרה אדומהlemen, is 830. Add three for the three words and it totals 833. Rabbi David teaches that this gematria equivalence suggests that the burning of the cow constitutes the complete destruction of the negative spiritual forces of Esav and Yishmael. The Or HaChayim associates the burning of the completely red cow to the attribute of Justice in action. This attribute of Justice corresponds to the symmetrical pair of ELSs דִּי, judgment, appearing in the table of Figure 8.

The great kabbalist, the Ari Hakadosh, said that the war of Gog and Magog will begin on the Jewish holiday of Hoshana Rabba. That is because on each day of Sukkoth, Israel offered up bullocks in the Holy Temple in Jerusalem, corresponding to the 70 nations of the world. The number decreased each day reaching its low on Hoshana Rabba. This symbolizes the nations’ dwindling power, a fact that causes them to wage war against each other. In fact, the actual day that the American bombing of terrorist targets began in Afghanistan was October 8, 2001. That day was Hoshana Rabba of the Jewish year 5762.

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91. Personal communication.
92. Numbers 19:5.
93. Numbers 19:19
Twin Towers, Islam, and Bin Laden

There is a clear *a priori* association of Bin Laden with Twin Towers. He and his organization were responsible for the attack. It is therefore natural to set for our *a priori* words *Bin Laden* either with the spelling بی ن لادن or with the spelling بن لادن, both spellings being common. Figure 22 shows the fourth skip rank Bin Laden, spelled بن لادن, with Twin Towers, بن لادن، found with the linked protocol to Bin Laden. With the expected number of ELSs set to 10, the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have a more compact table is .022.

<table>
<thead>
<tr>
<th>Twin Towers</th>
<th>بن لادن</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/50:16</td>
<td>1/50:15</td>
</tr>
<tr>
<td>2/03:15</td>
<td>2/03:15</td>
</tr>
<tr>
<td>2/06:07</td>
<td>2/06:06</td>
</tr>
<tr>
<td>2/08:17</td>
<td>2/08:17</td>
</tr>
<tr>
<td>2/10:17</td>
<td>2/10:17</td>
</tr>
<tr>
<td>2/12:44</td>
<td>2/12:44</td>
</tr>
<tr>
<td>2/15:11</td>
<td>2/15:11</td>
</tr>
<tr>
<td>2/18:01</td>
<td>2/18:01</td>
</tr>
</tbody>
</table>

Figure 22 shows the most compact table of *Bin Laden*, بن لادن, with *Twin Towers*, بن لادن،. Linking the ELSs of بن لادن, Twin Towers, بن لادن، to بن لادن،, the probability that a text in the ELS random monkey text population corresponding to the Five Books would have a table as compact as this one is .022.

Torah Code researcher Art Levitt randomly sampled 25 news stories from the approximate 125 news stories in the Israeli Newspaper הארץ, *Haaretz*, from Sept 12 to Sept 30 2001, that contained the words بن لادن،, *Twin Towers*. Levitt then searched for the most compact table containing Twin Towers,
Bin Laden and the most frequently appearing word. The most frequently appearing word wasلفتنوع، the (terror) attack. For the key word attack, he tried the forms פונות, פונות, and פונות. The most statistically significant table is shown in Figure 23. Its p-value is .0000875. Since three experiments were tried, by the Bonferroni inequality, the p-value for the combined experiment cannot be larger than .0002625. The key words form the phrase:

Bin Laden: (terror) attack (on) the Twin Towers.

Figure 23 shows the most compact table whose key words form the phrase: Binladen: (terror) attack (on) the Twin Towers. The cylinder size is 3805 columns. Setting the expected number of ELSs to 100, the probability that a text from the ELS random placement population would have as compact a table as this one is .0000875.

The table of Figure 23 can be developed with other significant words: the characterization of Bin Laden as Arab, a terrorist, והבן, and murderer, והבן; and meaning that Bin Laden shall rule over terror. The Zohar characterizes Bin Laden as a dog, כלב, which occurs in this table multiple times, twice as a word letter after letter and once vertically, bottom up, where the כלב is part of the ELS of והבן, terrorist. Parallel to Bin Laden is the phrase thousands of men, אלפים איש, referring to the thousands of people who were injured or killed in the World Trade Center Twin Towers attack. In the lower right corner of the table appears the term strike, מבנה, just above the term judgment, דין. This suggests that in the Bin Laden strike on the Twin Towers, Bin Laden was acting as an agent of God and the strike was an act of God’s judgment. In this table is Bush, ראש, crossing גסים, ruler, meaning that President Bush is the overall ruler. Finally in the table there is an ELS of the phrase bad inferno, תחת רע, and an ELS of סח, despair. This is shown in Figures 24a and 24b.
Figure 24a shows the right part of the development of the Bin Laden Twin Tower Table of Figure 23. The table is on a code cylinder of 3805 columns.
<table>
<thead>
<tr>
<th>Bin Laden</th>
<th>Twin Towers</th>
<th>מנהל התאומים</th>
</tr>
</thead>
<tbody>
<tr>
<td>Islam</td>
<td>Collapse</td>
<td>הפיל</td>
</tr>
<tr>
<td>Islam threatens</td>
<td>Attack</td>
<td>פונה</td>
</tr>
<tr>
<td>Threat in it</td>
<td>ב أيام</td>
<td>אלפים איש</td>
</tr>
<tr>
<td>Bad threat</td>
<td>أيامنع</td>
<td></td>
</tr>
</tbody>
</table>

Figure 24b shows the left part of the development of the Bin Laden Twin Towers table. This table is on a code cylinder of 3800 columns. The ELSs, Bin Laden, and Twin Towers are the same ELSs as the table of Figure 23 and 24a.

We have examined the key word phrase Twin Towers with key words airplane and attack and found the statistically significant table shown in Figure 5. We have examined the key word phrase Twin Towers with Bin Laden terror attack and found a result shown in Figure 23. Our third a priori examination is the key word phrase Twin Towers with the 23rd of Elul. In the year 2001, the corresponding Hebrew date to September 11, is the 23rd of Elul. However no statistically significant table was found. The noun tower, מגדל, is masculine; its plural is מגדליים and in the construct form it is מגדל and this is the form used in the phrase Twin Towers, מנהל התאומים. However, there is one time in Tanach, Ezekiel 26:9, where scripture uses the term towers spelled מגדלי in the word מגדליيك, meaning and your towers. Therefore we try again to see if there is a statistically compact table with the key words מנהל התאומים, וב אלל. We do find one with a large skip rank ELS for וב אלל. Had this been an isolated table, we would not show it because of the large skip rank for וב אלל. However, because it is a supporting table we show it in Figure 25.
Figure 25 shows the most compact table for the 23rd of Elul and Twin Towers. The expected number of ELSs was set to 100. The cylinder size is 14145 columns. The probability that a text in the ELS random placement text population would have a most compact table more compact as this one is less than 2/10,000.

Just as the tables with Twin Towers and Airplane attack and the table of Twin Towers and Bin Laden were able to be developed, so the table of Figure 25 showing Twin Towers with the date 23rd of Elul, which is September 11, can be developed. This is shown in Figure 26 where the developed key words form the sentence, “On the 23rd of Elul, Yishmael Arab dog will rule: death massacre about 3000 people killed in the city of New York.”

What is particularly interesting in this table is the phrase in the text itself of about 3000 people, occurring on the row of the table whose right side is labeled 2/32:28. This phrase is from incident of the Golden Calf where Moses called upon whoever is for Hashem to kill those who were dancing around the Golden Calf. The Levites responded to his call and the verse states,

_The Levites did as Moses said, and about three thousand men of the people fell that day._ 95

This table was found soon after September 11. But at that time the number of people thought killed in the attacks was about 6000. So there was a question at that time whether in fact that verse was part of the encoded table. Here is what ABC news reported on September 14, 2001.

The number of people missing in the ruins of the World Trade Center has risen and now stands at 6,333, with another 241 confirmed dead, according to New York City Mayor Rudy Giuliani. The previous missing toll, unchanged since Tuesday, was 5,422. Mr Giuliani told a news conference "the main reason for that is getting numbers from foreign nationals. For example, British nationals are about 250 alone." He added that the latest toll "may go up or down, depending on our checking it against possible duplication from other sources."

The figure includes 300 firefighters, 44 Port Authority workers, 23 police officers, an FBI agent and a Secret Service agent.

Two years later, on September 11, 2003, CBS news reported that the number dead at the Twin Towers was 2792, at the Pentagon 184, and in Pennsylvania 40. The number dead totals 3016, just as the verse states, _about 3000 men of the people fell that day._ The verse is indeed part of the encoded table.

---

<table>
<thead>
<tr>
<th>Twin Towers</th>
<th>מנדלת התאים</th>
<th>Death</th>
<th>מות</th>
</tr>
</thead>
<tbody>
<tr>
<td>(On the) 23 Elul</td>
<td>בכ אלל</td>
<td>Massacre</td>
<td>סבת</td>
</tr>
<tr>
<td>Yishmael</td>
<td>שמשיאל</td>
<td>And fell from the people</td>
<td>התחת</td>
</tr>
<tr>
<td>Arab</td>
<td>ערב</td>
<td>About 3000 men (people)</td>
<td>כושלאת אלף איש</td>
</tr>
<tr>
<td>Dog</td>
<td>כלב</td>
<td>Killed</td>
<td>חרב</td>
</tr>
<tr>
<td>Will rule</td>
<td>מלש</td>
<td>In the city</td>
<td>בעיר</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Of New York</td>
<td>נני תורק</td>
</tr>
</tbody>
</table>

Figure 26 shows the development of the table in Figure 25.

It has become completely clear that the Arabs, who are the descendants of Yishmael, whose religion Islam, as interpreted by the politically oriented Wahhabi sect and by Bin Laden in particular, are responsible for the kind of thinking that has led to the Twin Towers terror attack. Therefore it is natural to see if the table of Figure 21 could be extended with key words such as, Wahhabi Islam, מוחלביIslam; Muslim, מוסלמי; Islamic,伊斯兰; Al Qaeda or Qaeda, קאيدة; Islam, Islam; and Yishmael שמעיאל. We did not find any such extensions. However, when we looked for these extensions in the same text area as the original table of Figures 3 and 5, we found such extensions. These extensions have to be shown on a cylinder size of 72. This means that the ELS for מתהים will not appear in a compact form since its skip is 36 and so we omit it along with the ELS for מחלה. Figure 27 shows overlapping sections of the 72 column table on a code cylinder of 72 columns in the same location as the Twin Towers massacre.
Figure 27 shows a table in the same location as the first Twin Towers table of Figure 3. This table shows the attack on the Twin Towers came from Islamic Wahhabi origin and it names Bin Laden and Qaeda. Going from top to bottom, the three table parts shown constitute the three overlapping strips of the table which is on a cylinder size of 72 columns.

<table>
<thead>
<tr>
<th>Attack</th>
<th>متکفنت</th>
<th>Bin Laden</th>
<th>בַּיָּל טִרְנָ</th>
<th>From Wahhabi Islam</th>
<th>-Qaeda</th>
<th>הקדה</th>
<th>אסלאמי</th>
<th>Yishmael</th>
<th>ישמעאל</th>
<th>Islamic</th>
<th>אסלאמי</th>
<th>Arab</th>
<th>ערב</th>
<th>Muslim</th>
<th>מתשלחת</th>
<th>The Suicide Martyr</th>
<th>נשיח</th>
<th>Wound United States</th>
<th>חולאבר</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Wahhabi Islam</td>
<td>متکفنت</td>
<td>Bin Laden</td>
<td>בַּיָּל טִרְנָ</td>
<td>From Wahhabi Islam</td>
<td>-Qaeda</td>
<td>הקדה</td>
<td>אסלאמי</td>
<td>Yishmael</td>
<td>ישמעאל</td>
<td>Islamic</td>
<td>אסלאמי</td>
<td>Arab</td>
<td>ערב</td>
<td>Muslim</td>
<td>מתשלחת</td>
<td>The Suicide Martyr</td>
<td>נשיח</td>
<td>Wound United States</td>
<td>חולאבר</td>
</tr>
</tbody>
</table>

Figure 27 shows a table in the same location as the first Twin Towers table of Figure 3. This table shows the attack on the Twin Towers came from Islamic Wahhabi origin and it names Bin Laden and Qaeda. Going from top to bottom, the three table parts shown constitute the three overlapping strips of the table which is on a cylinder size of 72 columns.
Towers table of Figure 5. The ELS מתקפת in the table of Figure 27 is the same one as on the table of Figure 5. The table of Figure 27 shows a Bin Laden with a deficient spelling, along with Wahhabi Islam; Muslim; Islamic; Qaeda; and Yishmael.

<table>
<thead>
<tr>
<th>Sin</th>
<th>City and tower</th>
<th>התיות והום המגלה</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime</td>
<td>עווד And lo, the smoke of the land went up as the smoke of a furnace</td>
<td>חנה על קיסר האיראיה כקיסר</td>
</tr>
<tr>
<td>Bin Laden</td>
<td>בר Laden Struck dumb</td>
<td>האלム</td>
</tr>
<tr>
<td>Terrorist</td>
<td>ייחל And wailing</td>
<td>והללה</td>
</tr>
<tr>
<td>In the city</td>
<td>כעיר</td>
<td></td>
</tr>
</tbody>
</table>

Figure 28 shows Bin Laden in a phrase crime, sin, Bin Laden. A parallel ELS phrase has struck, dumb, and wailing. Crossing the crime sin phrase is an ELS for terrorist.

There is another interesting Bin Laden table found by Boaz Metzger and shown in Figure 28. This table has Bin Laden in an ELS phrase עווד פשע בר Laden, crime, sin, Bin Laden. Alongside this is another ELS phrase shock and wailing. At the top of the ELS והללה, and wailing, there is a verse from the Tower of Babel story.
And the Lord came down to see the city and the tower that the children of man built.\textsuperscript{96}

And alongside the beginning of the ELS, and wailing there is the verse,

\begin{quote}
ויֹרֵד ‚יהוּדָה לַרְאָת אֱלֹהִים אֲשֶׁר בְּנֵי הָאָדָם
And he looked out toward Sodom and Gomorrah and toward all the land of the Plain and behold, the smoke of the land went up as the smoke of a furnace.\textsuperscript{97}
\end{quote}

\textit{Behold the smoke of the land went up as the smoke of a furnace.} This is how the Twin Towers looked after the collapse for the next several days.

Figure 29 shows a most remarkable ELS phrase associated with Bin Laden. The phrase is 29 letters long and has 6 words. The \textit{Cursed is Bin Laden and vengeance from Moshiach} part of the ELS phrase was found by Leib Schwarzman using an interactive search. The \textit{Destruction I will call you} part of the ELS phrase was found by Art Levitt using an automated ELS phrase search with one of Professor Haralick’s search programs. The phrase suggests that the time of Bin Laden and the era of \textit{Moshiach} are overlapping.

It is difficult to estimate the probability that such a phrase will arise by chance because it involves defining an \textit{a priori} experiment in which this kind of ELS phrase is just one of a class of comparably long and meaningful phrase. The judgment of whether a phrase is meaningful must be a human judgment which makes such an experiment very labor intensive. Nevertheless Torah Code researcher Art Levitt has coordinated just such an experiment.

Art Levitt’s experiment was designed to answer this question: What is the probability that an ELS phrase at least this long with an average number of letters per word of at least 29/6 and as intelligible as the Bin Laden phrase would occur as a chance ELS phrase in a monkey text statistically comparable to the Torah text? The experiment put together a lexicon consisting of 40,000 words form \textit{Tanach}, excluding Daniel because it has many Aramaic words, and 67,000 additional words from the online Hebrew news source Arutz 7 for the year 2002. The lexicon had 107,000 words. The statistically comparable text population consisted of 307,200 permuted Torah texts, permuted with 12 different kinds of random permutation methods. Each permutation method generated 25,600 permuted texts. The permutation methods were: letter within word, letter within verse, letter within chapter, letter within book, letter within text, word within verse, word within chapter, word within book, word within text, verse within chapter, verse within book, and verse within text. To this population of randomly permuted Torah texts, was another 307,200 virtual texts created from Joshua through Kings II 18:24 word 7, a text length as long as the Five Books. In each of these virtual texts, a random anchor location was selected and an ELS of Bin Laden was inserted.

For each of the 614,400 texts, a program uses the given lexicon to find maximally long ELS phrases involving Bin Laden. There were 13,430 such phrases found that had at least 29 letters and an average word length of at least 29/6. Each of 64 reviewers received about 210 phrases and judged them either as

\textsuperscript{96} Genesis 11:5.
\textsuperscript{97} Genesis 19:28.
<table>
<thead>
<tr>
<th>Destruction</th>
<th>תرحمה</th>
<th>Bin Laden</th>
<th>וניקמה</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will call you</td>
<td>אכככ</td>
<td>And vengeance</td>
<td>וניקמה</td>
</tr>
<tr>
<td>Cursed is</td>
<td>אرار</td>
<td>From the Moshiach</td>
<td>למשיח</td>
</tr>
</tbody>
</table>

Figure 29 shows a remarkable Bin Laden table. The ELS phrase can be translated as *Destruction I will call you; cursed is Bin Laden and vengeance from the Moshiach.* The number of columns on the code cylinder is 6598.

intelligible or not intelligible. Of the 13,430 phrases, 204 were judged intelligible and among these 204 phrases was the Bin Laden phrase shown in Figure 28. Then each of 27 reviewers were given the 204 phrases to judge each as either intelligible or not intelligible. The Bin Laden phrase of Figure 28 was judged intelligible by 7 reviewers. There were two other phrases judged intelligible by 7 reviewers and there was 1 phrase judged intelligible by 10 reviewers. The simple p-value calculation is then about 

\[
\frac{3}{2+1}/614,400 \sim 4/1,000,000.
\]

This is not quite a correct calculation because of the double gate the experiment had. A more correct estimate would be about 6/1,000,000. And because Bin Laden has two spellings, בִּינְלֵאדֶן and בִּינְאָדֶן, and the experiment only worked with one of the spellings, the true
p-value is double this, about 12/1,000,000 = 1/83,333.

<table>
<thead>
<tr>
<th>Who Graduated</th>
<th>אדריכל</th>
</tr>
</thead>
<tbody>
<tr>
<td>Destroyer</td>
<td>מבית</td>
</tr>
<tr>
<td>Terrorist</td>
<td>מבית</td>
</tr>
</tbody>
</table>

Figure 30 shows Igor Pesetzski’s development of the Cursed Bin Laden phrase.

Figure 30 shows a development of the Bin Laden table of Figure 29 done by Igor Pesetzski of the Cursed Bin Laden phrase. At the end of the ELS phrase he finds ברכות, who graduated; מוחלט, terrorist; and מבית, destroyer. The ELSs for מבית and מבית overlap in the letters מבית. There is a nearby Torah
He is a murderer; the murderer shall surely be put to death.  

<table>
<thead>
<tr>
<th>Twin Towers</th>
<th>מנדלי התאומים</th>
<th>Samael</th>
<th>סמאל</th>
</tr>
</thead>
<tbody>
<tr>
<td>With an airplane</td>
<td>הבש</td>
<td>Rahav</td>
<td>רהב</td>
</tr>
<tr>
<td>Collapsing</td>
<td>קריסים</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 31 shows the word Samael, the ministering angel of Esau, and Rahav, the ministering angel of Ishmael, by the Twin Towers. Notice that a double Rahav occurs in a symmetrical arrangement, paralleling the symmetry of the Twin Towers.

The Hebrew word used for the rock that Moses struck twice in the section of Torah that appears in the Twin Towers table of Figure 5 is . The rock, because of its unchangeable nature, symbolizes the forces of evil. The ministers of these forces of evil are סמאל, Samael and רהב, Rahav. The Zohar tells

98. Numbers 35:17 also Numbers 35:18.

99. That which is spiritually good, is able to change its nature, constantly improving itself by controlling and reducing the influence of one’s Yetzer HaRa, one’s evil inclination.
us that סמאל, Samael, is the minister angel appointed over Edom, the nation of Esau (Europe and America) and רהב, Rahav, and לילה, Lillit, are the minister angels appointed over the nation of Ishmael (the Arab nations). The table of Figure 5 is shown on a cylinder of 18 columns in Figure 30. There one can see an ELS of Samael and an ELS of Rahav. Samael, סמאל, is next to מגדל, towers, and מגדל, collapses, crossing מגדל.

<table>
<thead>
<tr>
<th>Twin Towers</th>
<th>מגדל הטרומיס</th>
<th>Lillit</th>
<th>מגדל</th>
</tr>
</thead>
<tbody>
<tr>
<td>With an Airplane</td>
<td>במיטוס</td>
<td>Rahav</td>
<td>מגדל</td>
</tr>
<tr>
<td>Amalek</td>
<td>ממל</td>
<td>Wailing/Yelling</td>
<td>מגדל</td>
</tr>
</tbody>
</table>

4/20:04
4/20:05
4/20:05
4/20:05
4/20:06
4/20:06
4/20:06
4/20:08
4/20:08
4/20:08
4/20:09
4/20:10
4/20:10
4/20:11
4/20:11
4/20:12
4/20:12
4/20:12
4/20:13
4/20:14
4/20:14
4/20:15
4/20:15

Figure 31 shows Samael’s female cohort Lilith along with the evil forces of Rahav and Yelalah.

Samael’s consort is לילית, סמאל, Samael, represents the force of arrogance and haughtiness, רהב, Rahav, represents the force of insatiable desire and לילה, Lillit, represents the force of Lust. It is not surprising that in the European and American culture there is arrogance and haughtiness. In European history, we find that one country after the other rises up because of their desire to rule over another country. This need stems from the idea that one’s country is better and superior to another. In the American culture there is a sense that America can dominate, control, and remedy various international economic and political problems. These characteristics of wanting to rule over and/or dominate arise from a spiritual arrogance. It is no surprise that we see in the Arab culture an insatiable desire, lust, and the combination -- a lust to fulfill desire. That is why when a desire is not fulfilled it is dishonorable in the Arab culture not to be angry. This is the reason for the highly charged emotionalism that is concomitant with Arab terrorism.

Figure 31 shows לילית, Lillit, and רחבע, Rahav in the same text of the story of Moses hitting the rock twice. Also notice ימאל, Amalek in the table. Amalek is the name given to each nation throughout history that has desired to eliminate the Jews. The rock that Moses struck twice is סלל. The סל of סלל stands for סאל, the ל stands for לילית and the י stands for ימאל. Also in this table is the term לילית, a word that means wailing, yelling, screaming, or screeching. This is the characteristic of the forces of Rahav and Lillit.

Lillith is associated with lust for money (as well as for sex) and is also associated with Yishmael. Samael is associated with pride of power and is also associated with Edom. This pride of power and lust for money is what the Twin Towers represented.

The Zohar, in the Torah portion of Vaera, tells of three fierce battles that Yishmael will initiate in the world. The descendants of Edom, including the United States, will gather against the descendants of Yishmael and fight these three battles: one on the land, one at sea, and one near Jerusalem. The Zohar then states that as the Christian world gains ascendancy in battle against the Arab world, a previously uninvolved nation from a distant part of the world will enter the confrontation. This nation, most probably China or North Korea, will attack the Western, Christian world, including their allies and interests in other parts of the world. This will further create world chaos and panic which the Zohar predicts will then involve most of the nations of the Earth. As this ultimate battle of Gog and Magog concludes its third month, God will reveal Himself to the world and the Messiah will appear.¹⁰¹

Chapter 9
Terror Attacks

Al-Qaeda

Civilized society is a society where the norm is for people to behave properly and courteously, every person respecting each other’s equal rights. Since this is the norm, there is no need for each person in a community to devote much time and resource for protection of life, liberty and property. Such protection provided by the local governmental administration can be minimal because civilized society does not need more than that. Differences of opinions on matters of local policy are easily settled by democratic vote, where each person is equal: one person, one vote. Differences of opinions between countries are settled by diplomatic negotiations, trade policies, and only as a last resort by military action. And in military action, it is almost always military against military. Not military against civilians.

There has been a change. There is a new movement, not necessarily associated with any government or country, that attempts to influence international political policy by terror against civilians. It justifies its actions on religious grounds. When political objectives are motivated religiously, they feel that all ethics can be cast aside. Any action, no matter how barbaric, can be rationalized and justified on religious grounds. Indeed this has been the political history of Islam: If you are not Moslem, and you are in a place that is becoming dominantly Moslem, then convert or die. If your society is not the right branch of Islam, then it will be destroyed. Those who are not Moslem are considered as not true believers and are wicked infidels deserving death.

Terrorism is violence, or the threat of violence, calculated to create an atmosphere of fear and alarm. These acts are designed to coerce others into actions they would not otherwise undertake, or refrain from actions they desire to take. All terrorist acts are crimes. Many would also be violation of the rules of war if a state of war existed. This violence or threat of violence is generally directed against civilian targets. The motives of all terrorists are political, and terrorist actions are generally carried out in a way that will achieve maximum publicity. Unlike other criminal acts, terrorists often claim credit for their acts. Finally, terrorist acts are intended to produce effects beyond the immediate physical damage of the cause, having long-term psychological repercussions on a particular target audience. The fear created by terrorists may be intended to cause people to exaggerate the strengths of the terrorist and the importance of the cause, to provoke governmental overreaction, to discourage dissent, or simply to intimidate and thereby enforce compliance with their demands.102

The principal Moslem group that has been associated with terror attacks on civilians and soft targets of opportunity is Al Qaeda. It has the following clearly political interpretation of Islam.

Islam is not just performing rituals, but a complete system: Religion and government, worship and Jihad (holy war), ethics and dealing with people, and the Koran and the

102. www.tkb.org
In its training manual, in the section on Principles of Military Organization, it states its main mission as: “The overthrow of the godless regimes and their replacement with an Islamic regime.” Subsidiary missions include: kidnapping and assassination of civilians, destroying places of amusement, embassies, and vital economic centers. Members of Al Qaeda must be willing to “undergo martyrdom for the purpose of achieving the goal and establishing the religion of majestic Allah on earth.” Members of Al Qaeda must have “a calm personality that allows him to endure psychological traumas such as those involving bloodshed and murder.” By their own statements, it is clear that their subsidiary missions are accomplished by terror.

Rabbi Earl David teaches that

The term, אל קאידה, has a gematria of 220. Another word with the same gematria is והרגו, and they will kill. The danger of Al Qaeda can be found in another phrase, favor in your eyes, that has the same gematria. The gematria correspondences suggest that they can actually interact with society, find favor among the locals and remain “sleepers” until called upon to act as cold blooded killers.

<table>
<thead>
<tr>
<th>Terrorists</th>
<th>מוחבלים</th>
<th>Al-Qaeda</th>
<th>אלקטיעדה</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/38:21</td>
<td>2/38:20</td>
<td>2/38:20</td>
<td></td>
</tr>
<tr>
<td>4/07:03</td>
<td>4/07:02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/18:04</td>
<td>4/18:03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/30:15</td>
<td>4/30:15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/05:05</td>
<td>5/05:05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1 shows the most compact table of the key words Terrorists and Al-Qaeda. The cylinder size is columns. With the expected number of ELSs set to 10, the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have a more compact table than this one is .0065.

Our first a priori pair of key words is Bin Laden and Al-Qaeda. There is no statistically significant table of Al-Qaeda with either of the two spellings for Bin Laden. Our second a priori key words is Al-Qaeda, מוחבלים, or terrorists, מוחבל. With the expected number of ELSs set to 10, the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have a more compact table than that shown in Figure 1 is .0065. Our third a priori key word

103. The introductory section in The AlQaeda Manual found by the Manchester police and introduced as evidence in an embassy bombing trial in New York. The manual can be found at url: www.usdoj.gov/ag/trainingmanual.htm.
104. Ibid.
105. Personal communication.
106. Genesis 12:12.
107. Ibid. 30:27.
set is *Al-Qaeda*, with *terror*. This key word set does not result in a statistically significant table. There were a total of four experiments and by the Bonferroni inequality, the p-value of the four experiments is bounded above by .026.

The end of the first row of the table in Figure 1 is the beginning of the verse

*These are the accountings of the Tabernacle, the Tabernacle of Testimony, which were reckoned at Moses’ bidding.*

Accountings in the context of this verse refers to the accountings of the gold and silver that the Israelites brought to Moses as donations for the building of the Tabernacle. In the context of Al-Qaeda, accountings has another meaning. In fact, it is the actions of the terrorists of Al-Qaeda that will force the accounting of its ideology. This will happen in the period of the war of Gog Magog. In that period, Al-Qaeda and its ideology will be destroyed. That will be its accounting.

There is one interesting development of the table in Figure 1. There is a nearby ELS for *terror*, actually *the terror*. This is shown in the table of Figure 2.

<table>
<thead>
<tr>
<th>The terror</th>
<th>테러</th>
<th>Al-Qaeda</th>
<th>אלקאעידה</th>
</tr>
</thead>
<tbody>
<tr>
<td>The terrorists</td>
<td>מחבלים</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 2 shows the connection between the key words: the terror, the terrorists, and Al-Qaeda.*

The skip for the ELS *מחבלים, the terrorists*, is the minimal skip one in the entire Five Books. The skip for the ELS *אלקאעידה, Al-Qaeda*, has rank 12 in the entire Five Books. The skip for the ELS *terror, the terror*, has rank 3 in the entire Five Books. Using a protocol where the number of expected ELSs is set to 10, the probability of a text in the ELS random placement monkey text population having as compact a table as the one observed in the Five Books is 38.5/100,000. The cylinder size that this table is on is 20,426 and the table spans from Exodus 26:28 through Deuteronomy 5:5.

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Taba Hilton

In the 1967 Mideast war, Israel captured the Sinai Desert from Egypt and returned it to Egypt in 1982 under terms of a peace treaty, except for Taba, a tiny parcel of land on the Red Sea shore next to Eilat. Israel claimed the international border placed Taba inside Israel, but international arbitrators ruled against the claim, and Israel returned Taba, along with the $41 million Hilton hotel, to Egypt in March 1989.

The Taba Hilton is situated in the North of the Sinai Peninsula and set on a private beach on the Gulf of Aqaba, offering views of Jordan, Saudi Arabia and Israel. In ancient times this small town was once a resting point for caravans en route to the Fort of Aqaba.

On Thursday, October 7, 2004, four car bombs exploded: two at the Taba Hilton and two at the Red Sea coast resort towns of Ras Satan, 28 miles to the south and Nuweiba, 35 miles to the south. Just before 10 p.m. two vehicles loaded with explosives sped up the driveway of the Taba Hilton, crashed into the lobby and detonated in a massive blast that blew apart cinderblocks, shattered windows throughout the hotel, caused the ceiling of the lobby to collapse and caused the front of the 10 floor western wing of the hotel to collapse. Each car bomb had 200 kilograms of explosive expertly rigged. The 410 room Hilton had 850 guests and was at full occupancy at the time of the explosion.

Thirty two people died and over 120 were wounded. In some sense, the whole incident was a miracle. Had the bombers detonated the bombs near the foundations of the hotel rather than in the middle of the lobby the casualties would have been far, far worse.
Figure 4 shows the Taba Hilton resort before its car bombing.

Figure 5 shows the collapsed western wing of the Taba Hilton

At the Ras Satan camping site known as Moon Island, an area that is popular with young Israeli backpackers, there was a huge explosion right in the middle of where everybody was camping. Three people died.
These attacks put an end to years of peace for tourists on Egyptian soil. An incident occurred in 1985, when an Egyptian policeman went berserk and opened fire on Israelis in Ras Burka in the Sinai, killing seven. During these intervening years the Egyptian authorities have managed to thwart several attempted terrorist operations. In the course, they have arrested several hundred Islamists, most of whom were returnees from other Islamist fronts: Afghanistan, Bosnia, Chechnya, Albania, and other countries.

There are many news stories with the headline or topic sentence containing the words Taba Terror. For example on October 7, the Israel Ministry of Foreign Affairs writes in a news story headline: Terror bombings hit Taba and Ras a-Satan in Sinai. On October 11, the Washington Times had a piece written by UPI editor Claude Salhani with the title Analysis: Taba’s Triple Terror Targets. On October 11, Arutz Sheva had a story with the headline: Personal Testimony From Taba Terror. On October 14, Middle Eastern Transparant had an article by Youssef Sidhom with the title Terror In Taba. The Jewish Agency for Israel posted an article with the title: Toronto Funding Helps Victims of Taba Terror Attacks. Figure 6 shows the close meeting between Taba and terror. With the expected number of ELSs set to 10, the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have as compact a table as this one is .0015.

Another combination of key words that has frequently occured in the news headlines is Taba and Explosion. On October 7, 2004, Arutz Sheva had a headline Explosion in Taba Hilton. On October 8, 2004, windsofchange.net posted an article by Dan Darling with the title: Explosion at Taba Hilton. On October 9, 2004, the on-line news Al-Ahram had an article with the headline: Explosion at Egypt's Taba Resort. The most compact table with the key words Taba and Explosion is shown in Figure 7. However, it is not statistically significant, even though it appears compact.

There is a table that links the Taba location with terrorists, terror, explosion and inferno. It is shown in Figure 8 and it is statistically significant.
Figure 7 shows the most compact table with the key words *Taba* and *Explosion*. However, the table is not statistically significant. It is only shown as a supporting table.

<table>
<thead>
<tr>
<th>The terrorists</th>
<th>המוחלטים</th>
<th>The explosion</th>
<th>הפיצוץ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taba</td>
<td>טאבה</td>
<td>Terror</td>
<td>טורר</td>
</tr>
<tr>
<td>Inferno</td>
<td>הנפה</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 8 shows the most compact table with the key words *Taba*, *Explosion*, *The terrorists*, *Inferno*, and *Terror*. The cylinder size is 64 columns. Setting the expected number of ELSs to 100, the probability that a table as compact as this would arise in a text of the ELS random placement monkey text population is .015.

Using a protocol with expected number of ELSs set to 100 and searching the Five Books, the probability that a table as compact as the one observed would arise by chance is 15/1000. The ELS for *explosion*, הפיצוץ, and the ELS for the *terrorists*, המוחלטים, are minimal in the entire Five Books.
In speaking about the Taba Hilton terrorism, Israeli Foreign Minister Silvan Shalom said:

This was meant to be a mega-attack that was supposed to collapse the whole hotel and kill hundreds of people.\(^{109}\)

This statement was carried on Israeli television and widely quoted in a variety of news sources. The next table simply links the Taba Hilton with a mega-attack. We performed two experiments. In the first experiment we took Taba, סאבה, and Hilton, הילטום, as separate words. In the second experiment we took Taba, סאבה, and Hilton, הילטום, as one ELS phrase. Since Taba, סאבה, ends with a ה and Hilton, הילטום, starts with a ה, we can form an ELS phrase, סאבה הילטום, with the ה of סאבה and the ה of הילטום overlapping. The most significant result was for the third experiment. Using a protocol with expected number of ELSs set to 10, the probability that a text in the ELS random placement text population corresponding to the Five Books would have as a compact table as this one is 6/10,000. As there were three experiments, by the Bonferroni inequality the probability that the observed p-value would be as small as it was observed in the three experiments is 18/10000.

In this table the ה from Taba and the ה from Hilton overlap and become one and the same ה.

<table>
<thead>
<tr>
<th>Taba Hilton</th>
<th>סאבה הילטום</th>
<th>Mega-Attack</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/33:40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/34:03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/34:23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/35:12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/35:29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/36:08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/01:10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/01:25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/01:41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 9 shows the most compact table arising from the key words סאבה הילטום and פניע מצא. The cylinder size is 67 columns. Using a protocol with expected number of ELSs set to 10, the probability that a text in the ELS random placement text population corresponding to the Five Books would have as a compact table as this one is 6/10,000.

With the rise of terrorism and mega-attacks and mega-terror, what can an ordinary person do? Avoiding crowded places and places where terrorists might be likely to strike perhaps lessens the probability that the person will be a casualty in an attack. But that action helps the person and not the community. To help the community there is really only one thing a person can do: pray. This is what Judaism teaches. Prayer makes a difference. God listens to those who pray with a pure heart. God answers prayer in the most perfect way possible, even though sometimes we may not understand how perfect is His answer. In times of distress, or fear of what might happen, God wants us to turn toward Him. For when we turn to God, He changes our reality. To say this in a stronger way: to change our reality, we must turn toward Him in prayer.

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\(^{109}\) chareidi.shemayisrael.com/archives5765/noach/ataba1.htm
Figure 10 shows the most compact table built around the *a priori* key words *mega-terror*, *mega-attack*, and *prayer*. The Five Books has only six ELSs for mega-terror, מנה טורר and two for mega-attack, מנה פונה. It is remarkable that even though there are only two such ELSs of מנה פונה, and six ELSs of מנה טורר so that there are only twelve possible pairs of such ELSs, there is an especially close meeting with the 1 of one next to the 1 of the other. Using a protocol with expected number of ELSs set to 10, the probability that a text from the ELS random placement monkey text population corresponding to the Five Books would have a more compact table than that shown in Figure 10 is about 10/100,000.

<table>
<thead>
<tr>
<th>Mega-Terror</th>
<th>מנה טורר</th>
<th>Prayer</th>
<th>תפילה</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 10 shows the most compact table with the key words *Mega-Terror*, *Mega-Attack*, and *Prayer*.

<table>
<thead>
<tr>
<th>Atomic</th>
<th>אטמי</th>
<th>Hashem</th>
<th>י-ה-ו-ה</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mega-attack</td>
<td>פונה מנה</td>
<td>Will have compassion</td>
<td>תורם</td>
</tr>
<tr>
<td>Mega-terror</td>
<td>מנה טורר</td>
<td>On Israel</td>
<td>על ישראל</td>
</tr>
<tr>
<td>Prayer</td>
<td>תפילה</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 11 shows the development of the table of Figure 10. Here one can see additional ELSs for the word *atomic* right within the ELS for *mega-attack*. And there is the sentence: *Hashem will have compassion on Israel*. The table also contains a number of dates, which are not shown.

The table of Figure 10 can be developed in a remarkable manner. Within the ELS for *mega-attack*, מנה פונה, there is a small skip ELS for *atomic*, אטמי. We do not know what this might mean. In addition, the

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110. There are two Hebrew spellings for Mega. The spelling מנה טורר has been used in the newspapers in the phrase מנה טורר. The spelling מנה פונה has been used in the newspapers in the phrase מנה פונה. With the different spellings, we are just following the usage we found in the Israeli newspapers.
table contains within it ELSs of the words for *Hashem, will have compassion, on Israel* (Figure 11).

**The Beslan Massacre**

On Wednesday, September 1, 2004, the first day of the Russian school year, 32 Chechen and Ingush Islamic terrorists, armed with guns and suicide-bomb belts, seized a middle school in the town of Beslan and took over one thousand hostages from the parents, teachers and children that were in the school area. The school children ranged in age from 7 to 17. The terrorists demanded the release of the Chechen prisoners Russia captured during a June 2004 raid and the Russian withdrawal of all forces from Chechnya. Some of the hostages were killed and their bodies dumped outside the school building.

Beslan is 19 miles (30 km) north of Vladikavkaz in southern Russia, which borders the troubled Russian republic of Chechnya. This is illustrated in the map of Figure 12.

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**Figure 12 shows a map indicating where the town of Beslan is in Russia.**

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**Figure 13 shows the school children hostages gathered together in the Gymnasium.**
Hundreds of Russian armed troops in tanks, armored vehicles and on foot surrounded the school. On Friday, September 3, the Russian forces stormed the building around midday after some medical rescue workers tried to collect bodies lying outside the building and were fired upon by the terrorists. Then one of the hostage takers set off a suicide bomb in the gymnasium where most of the hostages were being held. The roof of the gymnasium collapsed on top of the hostages and the gymnasium was completely burned out. Many hostages died.

As the children who survived from the gymnasium explosion tried to flee, the terrorists began shooting them in the back. Russian troops then opened fire on the terrorists and the battle began. Russian forces blasted holes in the school walls to create passages through which hostages could escape and soldiers could enter.

Figure 14 shows how a hole was blasted in the wall of the school to permit the hostages to escape.

In the end, more than 339 of the hostages, including 156 children were killed. More than 700 people were wounded. The Russian troops killed 30 of the terrorists and captured one alive. Ten of the terrorists were from Arab countries: Jordan, Saudi Arabia and Syria. The Arab connection suggests a link between the Chechen Islamic radical movement and the Al Qaeda terror network. Intelligence investigators determined that the Chechen and Ingush terrorists were trained in Al Qaeda camps in Afghanistan.

It is interesting that the table that we earlier developed showing the connection between Bin Laden and the Twin Towers has in it some additional ELSs that only make sense after the Beslan Siege. We can almost make a sentence from these words: “The additional attack: Islam, with strength murders, Russians.” Also this happens “in the time in 5764 (2004)” and it “will embitter Elul.” The table is shown in Figure 15.
Figure 15 shows the development of the Bin Laden Twin Towers table to include the additional terrorist attack at the Russian town of Beslan. The cylinder size is 3807 columns.

*Elul* is the Hebrew month in which both the Twin Towers and the Beslan Siege occurred. In fact, they both occurred within the eight days before the creation of the world, which Jewish tradition teaches is on the 25th of *Elul*. *Kabbalistically*, the eight days are known as the “eight days of the fall of the eight kings of Edom” as mentioned in chapter 36 verse 31 through 43 in the book of Genesis. The Twin Towers occurred on the 6th day and the Beslan Siege occurred on the 1st day of the fall of the first king. The first day of the the fall of the first king is also the day on which World War II started.

The explosives that the terrorists had set off in the school gymnasium burned out the gymnasium and all those that were anywhere near the explosives were severely burned or died. We built our experiment around the sentence: “A destructive attack in Russia in *Elul* 5764.” For the word *attack* we tried two spellings: פוגע and פוגע. The first spelling did not yield any statistically significant table. The second spelling, however, did. This is shown in the table of Figure 16, which develops this aspect of the Beslan Siege. Running right through the middle of the table is the verse

*Their sons and their daughters will be burned in fire,*

Setting the expected number of ELSs to 10, the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have as a compact a table as shown in

---

| Destructive Attack in Russia | Elul 5764 | אולל | המל | שנה | תשמisper | לארז | בורסייה | תשמisper | שנה | לארז | בורסייה |

Figure 16 shows the table containing the ELSs for a destructive attack in Russia in the month of Elul in the year 5764, which is 2004. The cylinder has 23 columns.
Figure 16 is 9.5/100,000.

Chechnya has long been a source of trouble to Russia, struggling for independence for over a decade since the collapse of the Soviet Union. Indeed, Russia has had difficulty trying to control the area mainly inhabited by Muslim tribes since the late 1700’s. The terror of the Beslan school massacre is just another incident of Chechnic terror. *Chechnic* and *terror* are a natural *a priori* choice of key words. The most compact table containing ELSs of these two words is shown in Figure 17. With the expected number of ELSs set to 10 and using the ELS random placement monkey text population corresponding to the Five Books, the probability that a text would have as compact a table as that shown in Figure 17 is .0027. It is interesting that the ELS for *Chechnic*, is a natural *a priori* choice of key words. The expression “a handful of trouble” truly corresponds to the situation at the school where the hostages were held. The terrorists allowed no food, water or medicines to be brought to the school. So many children and adults were killed. And the gymnasium was so hot that the children took off their clothes to get some relief from the heat.

<table>
<thead>
<tr>
<th>Handful of trouble</th>
<th>![Table Image]</th>
</tr>
</thead>
<tbody>
<tr>
<td>In terror</td>
<td>![Table Image]</td>
</tr>
</tbody>
</table>

Figure 17 shows the most compact table having ELSs of the key words handful of trouble in Chechnic terror. The cylinder size is 7 columns.
Madrid Train Bombings

On March 11, 2004, during the busy early morning rush hour, several devastating terror attacks occurred in Madrid. Ten bombs exploded minutes apart on four trains in three Madrid train stations. Each of the trains was full with commuters, office workers, students and schoolchildren. The explosions killed 191 people and approximately 2,000 were injured. Worst hit was a double-decker train at the El Pozo station, where two bombs killed 70 people.

Figure 18 shows one of the wrecks caused by the bombing of the Madrid trains.

All of the trains left the Alcalá de Henares station within 15 minutes of each other. As each train passed through the station, the bombers loaded rucksacks each containing about 10 kg (22 lb) of explosives onboard. As the first train drew to a halt inside Atocha station, three bombs exploded in the third, fourth and sixth carriages. At least 34 people were killed and scores wounded. Almost simultaneously, four bombs detonated in the first, fourth and sixth carriages of the second train about 500m outside the station. At least 59 people were killed and scores wounded.

The evidence recovered by police investigations includes the discovery close to a Madrid station of a stolen van containing seven detonators and an Arabic language tape. It was also determined that the bombers used titadine, a kind of compressed dynamite.

A videotape was discovered in a wastebasket near a Madrid mosque after an Arabic-speaking man called a Madrid TV station and indicated where it could be found. The man on the videotape wore Arabic dress and spoke with a Moroccan accent. The speaker concluded by saying: "This is a statement by the military spokesman for Al Qaeda in Europe, Abu Dujan al Afghani." Also, a letter sent to a London-based Arabic newspaper claimed responsibility for the attacks on behalf of the Abu Hafs al-Masri Brigades, a group
that aligns itself to Osama Bin Laden's Al-Qaeda network. It was an Arabic cell that was responsible for the Madrid train bombs.

Figure 19 shows the damage caused by one of the bombs on the Madrid trains.

Some 55 people, including numerous Moroccans, have been charged in the bombings. Most of them have some connection with Islamic militant terrorists.

Our experiment will consist of the year and date, the city, and the word for attack, פיגוע, or Arabic cell, train, inferno, and terror hit. March 11, 2004 corresponds to the 18th of the month of Adar in the year 5764. For the year, we will try 5764, or in (5)764. For the date we will try in Adar, Adar 18, or 18th of Adar. So for the date and year we have 6 combinations. For Madrid we will try Madrid, מדריד, or in Madrid, במדריד. There was a total of 12 experiments. The best table is shown in Figure 20. Setting the expected number of ELSs to 30, and using the ELS random placement monkey text population corresponding to the Five Books, the probability that a text would have as a compact table as that shown in Figure 20 is .00035. Since there were 12 experiments, by the Bonferroni inequality the p-value of the combined experiment cannot be larger than .0042.

The table of Figure 20 can be developed as shown in Figure 21. Here we see additional key words: Arabic cell, train, inferno, and terror hit. There is a further development of the table of Figure 20 shown in Figure 22. Here we see additional key words for Muslimic and explosive laden.

Finally, we show the most compact table containing ELSs of the key words: inferno, in the station, train, at the time, peak, overloaded (rush hour), a group, fighters, Muslims, perpetrated, a massacre. These key words form two sentences: “An inferno in the train station at the peak rush hour time. A group of Muslim fighters perpetrated a massacre.” The table is shown in Figure 23.
Figure 20 shows the most compact table formed from the sentence: “Attack in Madrid in (the month of) Adar, in (the year) (5)764.”
Figure 21 shows the development of the table of Figure 20. Here we see additional key words: inferno, train, terror hit, and Arabic cell.
<table>
<thead>
<tr>
<th>Attack</th>
<th>In Madrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inferno</td>
<td>Laden</td>
</tr>
<tr>
<td>Muslimic</td>
<td>Explosive</td>
</tr>
</tbody>
</table>

Figure 22 shows a second development of the table in Figure 20. Here we see additional key words for *Muslamic* and *explosive laden*. 
Figure 23 shows a supporting Madrid train massacre table.
Chapter 10
The Philistines and The Palestinians

The antagonistic attitude of the ancient Philistines towards the early Israelites is strikingly similar to the attitude of the modern Palestinians. What appears to be four principles of the religious ideology of the Palestinian Authority expressed by its religious leaders are:
(1) Jews are the enemy of Allah.
(2) Islam is fighting a continuous religious war against the Jews.
(3) The killing of Jews is a religious obligation.
(4) Palestinians are the vanguard in this war against the Jews, and all Islamic nations are obligated to assist in this war.

There are many quotes that could be chosen to illustrate this. We give just four.112

“There is no alternative to destroying Israel.”113

“We shall continue our struggle until the flag of Palestine is unfurled over Jerusalem.”114

“The Prophet said: ‘The Resurrection will not take place until the Muslims fight the Jews, and the Muslims kill them. The Muslims will kill the Jews, rejoice [in it], rejoice in Allah's Victory. The Muslims will kill the Jews, and he will hide.’
“The Prophet said: ‘The Jews will hide behind the rock and tree, and the rock and tree will say: oh servant of Allah, oh Muslim this is a Jew behind me, come and kill him!’ Why is there this malice? Because there are none who love the Jews on the face of the earth: not man, not rock, and not tree everything hates them. They destroy everything, they destroy the trees and destroy the houses. Everything wants vengeance on the Jews, on these pigs on the face of the earth, and the day of our victory, Allah willing, will come.’”115

“Israel will exist and will continue to exist until Islam will obliterate it, just as it obliterated others before it” (The Martyr, Imam Hassan al-Banna, of blessed memory).

The Torah tells us why the Philistines so hated the early Jews. They were jealous of Isaac our forefather, because God was with him and helped him succeed in all that he did. The supernatural success of the budding Jewish people led the Philistines to stop up the wells that Abraham’s servants had dug. Later it led to Isaac’s expulsion from the land of the Philistines, and later still to a quarrel between the Philistine shepherds and Isaac’s shepherds.116

The Zohar explains that the early Philistines were jealous of the nascent Jewish people’s spiritual ideals.

113. Our Country Palestine -- required reading under new Palestinian sixth grade curriculum -- banner on title page of Volume 1.
114. Yasser Arafat, speaking before a delegation of the Popular Front in February 2002 (Al Hayat, Al Jadeeda).
From this starting point we can approach the symbolic level of meaning in the Torah’s account: the story of a religious struggle between the first Jews and the Philistines. The faith in one God that Abraham our father spread among all humanity, and the holy Torah that he taught, are symbolized here as wells of pure flowing water. The Zohar explains this.

They all looked for a well and strove through it to preserve their faith pure and undiminshed.117

After Abraham’s death, this faith became weaker among the nations, and the Philistines hastened to seize the opportunity to “stop up the wells” -- to block the influence of Abraham’s teaching upon the world at large and to strengthen the practice of idol-worship. Thus the Torah tells us that they stopped up the wells with “dirt” the symbol of idolatry.

What was the nature of the idol worship of the Philistines? They worshipped principally two deities: Dagon and Ashtaroth. Dagon was the deity of the fish and Ashtaroth was the deity of fertility and war, the mistress of Dagon. Each Philistine city had a temple devoted to the worship of Dagon whose upper torso was human and whose lower torso was of a fish. The major cultic rite in Dagon’s worship was human sacrifice. In the ritual worship of Ashtaroth, women sacrificed their virginity through licentious sex. As well, prostitution and other lewd sexual acts were performed to honor Ashtaroth in order to receive her blessing of bearing many children.

God used the Philistines to punish the Children of Israel. We read in the beginning of the story of Samson.

The Children of Israel continued to do what was evil in the eyes of God and God delivered them into the hand of the Philistines for forty years.118

He (Samson) judged Israel in the days of the Philistines for twenty years. Samson went to Gaza. He saw there a harlot and consorted with her.119

The Talmud teaches us that because Samson allowed his eyes to entice him, he suffered the gouging out of his eyes by the hands of the Philistines.120 This is another instance where God provides consequences to the Jews for their own wrongdoing through the hands of those known for their parallel evil. In the case of Samson, the evil spiritual trait was lust and sexual licentiousness, the main action in the ritual of the Philistine worship of the idol Ashteroth.

Today the cultic rite in Dagon’s worship continues, as it did so long ago, with human sacrifice. On June 20, 2005, Wafa al-Biss, a 21-year-old Palestinian women was caught with a suicide/homocide explosive belt, trying to enter Israel for treatment at an Israeli hospital, with the intent of exploding herself in a crowded hospital area.

"My dream was to be a martyr," she said, adding that she was recruited by the Al Aqsa

119. Ibid. 15:20 - 16:1.
120. Talmud Sotah 10a.
Martyrs Brigades, a violent offshoot of Palestinian leader Mahmoud Abbas' Fatah movement. "I believe in death." 121

The Kabbalistic scholars tell us that the very name Philistine, מְלַשְׁתֵּן, indicates that their strength comes entirely from the spiritual power of lust. Politically, that lust is a lust to kill Jews and eliminate Israel. The root of the name מְלַשְׁתֵּן is מַלְשָׁה, whose basic meaning is “open at both ends.” This indicates, explain the Kabbalists, that the Philistine character has no place in it that is inaccessible to the spirit of lust: it is wide open to evil.

The name Palestine in Hebrew is מְלַשָּׂת. Its letters can be rearranged to spell out מַלְשָׁה, the quality of lowliness. The type of lowliness is indicated by dividing מַלְשָׁה into מַשָּׁה - מַל, where מַשָּׁה means abasement, and מַל, whose gematria is 430 is also the gematria of נְפִי, soul. Hence “abasement of the soul” is what the land of Palestine represents.

The gematria of מְלַשָּׂת is 810. This is ten times the value of טָבָע, (81) “material nature,” indicating that a large measure of physicality lies at the bottom of this land’s essence.

The inner or hidden gematria of מְלַשָּׂת is obtained by spelling out the letters of מְלַשָּׂת and then summing them minus the first letter of each spelling.

פ-כ ל-מו ש-נ ת-ו

The sum is 10 + 44+ 60+ 16 = 130. This is the gematria of the letters סְמֶאל סְמֶאל from the name סְמֶאל, Samael, the angel of Death and who exists in each of us as our evil inclination. The letters סְמֶאל are missing the כ that represents God, and are therefore, the letters that represent the evil in סְמֶאל: the Divine acquiescence in the world’s imperfection that allows evil to flourish until the Final Redemption. In token of the Divine source of what we call evil, an א, representing the One Creator, stands in the middle of the angel’s name, reminding us that he, too is a faithful servant of God. But the inner gematria of מְלַשָּׂת is 130 not 131. We interpret this to mean that מְלַשָּׂת draws its inner essence from pure evil without any recognition of God’s sovereignty, as is the case with its spiritual heirs, the Palestinians.

The letters סְמֶאל when separated as סְמ mean poisoning, of the מ, that aspect of man represented by the letter מ. The letter מ represents הלב, heart, and הלומד, study, the sacred search for truth. This is what the Palestinians stand for: the poisoning of man’s heart and search for truth, meaning they poison the heart with hate and poison the truth with lies.

In a news analysis article reporters Dougherty and Kupelian describe how Palestinian hate begins with teaching the children. The Palestinians have a “Sesame Street”-like children’s program called the ‘Children’s Club’ -- complete with puppet shows, songs, Mickey Mouse and other characters -- focused on inculcating intense hatred of Jews and a passion for engaging in and celebrating violence against them in a perpetual ‘jihad’ until

the day the Israeli flags come down from above ‘Palestinian land’ and the Palestinian flag is raised.

In one song on the ‘Children’s Club,’ very young children are shown singing songs about wanting to become ‘suicide warriors’ and to take up ‘a machine gun’ to direct “violence, anger, anger, anger” against Israelis.122

USA Today reporter Jack Kelley wrote:

In Hamas-run kindergartens, signs on the walls read: "The children of the kindergarten are the shaheeds (holy martyrs) of tomorrow." The classroom signs at Al-Najah University in the West Bank and at Gaza's Islamic University say, "Israel has nuclear bombs, we have human bombs."

At an Islamic school in Gaza City run by Hamas, 11-year-old Palestinian student Ahmed's small frame and boyish smile are deceiving. They mask a determination to kill at any cost. "I will make my body a bomb that will blast the flesh of Zionists, the sons of pigs and monkeys," Ahmed says. "I will tear their bodies into little pieces and cause them more pain than they will ever know."

"Allahu Akbar," his classmates shout in response: "God is great."123

This message of hate not only is broadcast to children, but also to adults in religious sermons. And the message of hate is reinforced by the Palestinian media, its own religious clergy and the religious clergy in other Moslem countries. For example, on June 8, 2001, Sheik Ibrahim Madhi broadcast a sermon from the Sheik Ijlin Mosque. In his sermon Modhi said:

“Blessings to whoever waged Jihad for the sake of Allah; blessing to whoever raided for the sake of Allah; blessings to whoever put a belt of explosives on his body or on his son’s body and plunged into the midst of the Jews, crying “Allahu Akbar”, praise to Allah, there is no God but Allah and Muhammand is His messenger.”124

This message is engraved in the Hamas Covenant, which gives the following history and political position:

It happened like this: When the leaders of the Islamic armies conquered Syria and Iraq, they sent to the Caliph of the Moslems, Umar bin-el-Khatab, asking for his advice concerning the conquered land -- whether they should divide it among the soldiers, or leave it for its owners, or what? After consultations and discussions between the Caliph of the Moslems, Omar bin-el-Khatab and companions of the Prophet, Allah bless him and grant him salvation, it was decided that the land should be left with its owners who could benefit by its fruit. As for the real ownership of the land and the land itself, it should be consecrated for Moslem generations till Judgement Day. Those who are on the land, are

there only to benefit from its fruit. This Waqf remains as long as earth and heaven remain. Any procedure in contradiction to Islamic Sharia, where Palestine is concerned, is null and void.¹²⁵

The suicide Palestinian bombers of today and the people they kill are akin to the human sacrifices offered to the ancient Philistine deity of Dagon. This can be understood in no other way than pure evil. An evil that we see is encouraged by the Muslim religious clerics in Saudi Arabia:

“Muslim Brothers in Palestine, do not have any mercy neither compassion on the Jews, their blood, their money, their flesh, ... , Why don’t you enslave their women? Why don’t you wage Jihad? Why don’t you pillage them?”¹²⁶

This should not be surprising for it is a concept implicit in the name סמאל他自己. The Kabbalist sages tell us that סמאל א-ל is understood as סמאל א-ל, blindness [towards] God -- indeed, the Evil Inclination’s principal effort is to blind man to the Hand of God that guides his life. Unfortunately, the lack of faith in God among the Jewish people turns around and strengthens the power of סמאל א-ל that nourishes the Palestinians.

This is why the Torah says,

*If you walk with Me with happenstance, I will walk with you in the fury of happenstance.*¹²⁷

If we adopt a stance of viewing the events of the world as mere happenstance, then God will hide His face from us, concealing the workings of His Providence from our understanding, and allow the power of סמאל to overcome us until we see everything as the happenstance of blind natural law. This is no more than we deserve if we willfully adopt the blindness that is the hallmark of סמאל, thus, as it were, joining the rank of its supporters.

The Palestinian intifada, the organized terrorist activities of Palestinian organizations such as Hamas, against innocent civilian Israelis is known throughout the world. Israeli children have to bury one and sometimes two of their parents. Parents have to bury their children. The leader of all the terrorist activity, until his death was Arafat, אַרְפָאָט, מַחְבָל. The most apt description of him and his gang is terrorist, טורר, among the Israelis. His official organization is the PLO, which in Hebrew has the initials מ.ס. His unofficial organization is Hamas, ח.מ.ס. The Torah itself uses this word in the sense of violence:

*And the earth was corrupted before God and the earth was filled with violence.*¹²⁸

In our time, we can only understand all of this by recognizing that they are the current Amalek. For in

¹²⁸. Genesis 6:11.
each generation there are those whose goal it is to destroy the Jews -- their name is Amalek. And the Torah associates the *dog, כלב*, with Amalek. We read in the *Zohar*,

> Said the Holy One, blessed by He:
>
> “You said, ‘Is the Lord in our midst or not?’ Behold, I will deliver you to the dog!”,
>
> and straightway came Amalek.

The goal of Amalek in our generation is the destruction of the state of Israel. Once this is understood, it is easy to understand why it is that the Palestinians have rejected every olive branch extended to them by Israel.

The *Zohar* tells us that there are

grades upon grades innumerable, as well as lower grades, executioners, who have the impudence of a dog and bite like an ass. Woe to whoever finds himself near them and under their judgement!  

About the ass or the donkey, המום, the *Zohar* explains to us,

> Observe that when the truly pious study the Torah, all the mighty ones of other peoples and other forces are humbled and their power broken, and they have no dominion in the world, and Israel are raised above all. But if not, the ass causes Israel to go into captivity and to fall into the hands of the peoples and to be ruled by them.

All these words appear as ELSs in the table shown in Figure 1. This table does not conform to our protocol in that it is dominated by the ELS of עירפה whose skip rank is not a low skip rank ELS. We believe that there is some other key word that we have not thought of that is in the table area and would be a low rank skip ELS. So this table must be thought of as a work in progress.

The Palestinians have become experts at producing lies and disinformation. Their children are told that death by an explosive belt while conducting a martyr mission against the Jews is not dying but living. There are web sites that are now devoted to publicizing the Palestinian lies.

The Palestinian description of the Israeli Operation Defensive Shield is an example of Palestinian lying. On March 28, 2002 after a series of Palestinian terrorist attacks on the Israeli civilian population, attacks that killed over 125 men, women, and children, Israel’s IDF, הלם breached Operation Defensive Shield, החמום. The goal was to dismantle the terrorist infrastructure built by the Palestinian Authority. This

129. *Zohar*, Section 2 pg. 65a.
130. *Zohar*, Section 3 pg. 155a.
131. *Zohar*, Section 1 pg. 242b.
Figure 1 shows the most compact table containing ELSs of the key words for Arafat, terrorist, terror, PLO, Hamas, dog, donkey, and spear. The cylinder size is 6061 columns.

infrastructure consisted of organizations such as the Fatah (Al-Aqsa Brigades), Islamic Jihad, and Hamas. Israeli Prime Minister Sharon described the operation this way:

IDF soldiers and officers have been given clear orders: to enter cities and villages which have become havens for terrorists; to catch and arrest terrorists and, primarily, their dispatchers and those who finance and support them; to confiscate weapons intended to be used against Israeli citizens; to expose and destroy terrorist facilities and explosives, laboratories, weapons production factories and secret installations. The orders are clear: target and paralyze anyone who takes up weapons and tries to oppose our troops, resists them or endanger them -- and to avoid harming the civilian population.133

The city of Jenin had a large terrorist infrastructure and served as a launching site for numerous terrorist attacks against both Israeli civilians and Israeli towns and villages in the area by what the PLO, call martyrs, شهيد. Jenin was a center for troublemakers. Indeed, 200 Fatah, Islamic Jihad, and Hamas Palestinian terrorists had fortified an area and operated there as armed combatants and not civilians. Their arms consisted of automatic weapons, grenades, anti-tank missiles, and explosives made in a joint bomb making facility in Jenin. The IDF besieged (连云) Jenin (גנני) and after 7 days of fierce fighting, (from April 4-11, 2002) the terrorist cells were subdued. 52 terrorists were killed and 27 IDF (连云) soldiers were killed. On April 6, 2002 the Palestinian Authority published a call for international help to save the lives of the residents of the Jenin. They explained that the entire city was under a merciless IDF attack. The Palestinians claimed a massacre of 500 or more people took place at Jenin. But in the end independent observers found no evidence of anything other than a fierce battle in which the terrorists used the civilian population as a shield. The lie of the massacre at Jenin was part of a Palestinian determined effort to delegitimize the State of Israel. The table of Figure 2 shows the compact ELS formations of these key words.

133. Ariel Sharon, Knesset speech, April 8, 2002.
Figure 2 shows the compact formation of the ELSs of the city of Jenin and the Hebrew terms for Defensive Shield, IDF, PLO, besieged, and martyr.

In the verse running through the row of the table with Jenin, גָּנַם, God says,

\[
I \text{ have indeed seen the affliction of My people who are in Egypt and I have heard its outcry because of its taskmasters, for I have known of its sufferings.}^{134}
\]

In the verse immediately following this verse, God says that He will come to save the Israelites. Right in the Hebrew verb to save, לִהְפָּכוּ, we see מִדְּמֵי, IDF, backwards.

Row 4 of the table says,

\[
The \text{scepter shall not depart from Judah nor a scholar from among his descendants until Shiloh arrives and his will be an assemblage of nations}^{135}.
\]

Shiloh is a term for Moshiach (Messiah) and this verse is one of the main verses in Genesis that is considered to be a prophecy of the coming of the Moshiach. This suggests that the generation of Moshiach will occur in the time of the generation of the Jenin Defensive Shield operation.

The table in Figure 3 shows that some of the key words occur more than once in the table of Figure 2.

Figure 3 shows the multiple occurrences of the ELSs for shield, מָנָן, and martyr, שָׁלֶדֶד.
Chapter 11
“Snow White and The Madness of Truth”

On Friday January 16, 2004, the Stockholm’s Museum of National Antiquities opened an exhibit “Making Differences”. The exhibit was in connection with an international conference on preventing genocide set for later that month in Stockholm.

The courtyard of the exhibit contained an artwork display entitled, “Snow White and the Madness of Truth.” The display consisted of a toy white sailboat floating in a rectangular basin filled with water colored red to appear like blood. Attached to the mast forming the sail of the boat was a smiling portrait of Palestinian Islamic Jihad suicide bomber Hanadi Jaradat. The title "Snowit" (Snow White in Swedish) was written on the side of the boat. The accompanying music was Bach's Cantata 199, Mein Herze Schimmt im Blut (My Heart Swims in Blood).

The display was created by Dror and Gunilla Feiler. Reuters identified Dror Feiler as a member of Jews for Israeli-Palestinian Peace, a vocal political group opposed to the Israeli presence in the West Bank and Gaza Strip. Therefore, the display must be considered as a political art work making a political statement.

What political statement does such a work of art make? Snow White itself is symbolic. Recalling the fairy tale, there once was a queen who was the most beautiful woman in the world. Snow White was her innocent and naive daughter and when she was seven-years-old she was considered even more beautiful than the queen. The queen was jealous of her daughter’s beauty and tried multiple times to kill her so that the queen could be the most beautiful woman in the world. In this fairy tale, the sail boat symbolizes the body carrying the soul, just as the ancient Sumer sailboats carried various deities and idols as their cargo. The water symbolizes space-time. Its redness symbolizes the destiny of the body in space-time. Snow White symbolizes the underdog, the young, innocent, and beautiful. So by utilizing the Snow White label with Jaradat’s portrait, Hanadi Jaradat is stated to be young, innocent, and beautiful. She is the soul on the sailboat; she is the deity sacrificing her body in space-time for her ideals.

The text of the Museum’s statement entitled, “Making Differences” includes the following sentences, the bold face and italicized face appearing exactly as in the Museum’s statement:

"She secretly crossed into Israel, charged into a Haifa restaurant, shot a security guard, blew up and murdered 19 innocent civilians as white as snow, as red as blood, and her hair was as black as ebony.

And many people are indeed crying: the Zer Aviv family, the Almog family, and all the relatives and friends of the dead and the wounded

and the red looked beautiful upon the white"

The Museum’s statement that “the red looked beautiful upon the white” reinforces that the red of Handi Jaradat’s lipstick looked beautiful on the white of her face. White, we recall is the color of innocence.
Figure 1 shows the Snow White portrait of Hanadi Jaradat. This portrait illustrates how “the red looked beautiful upon the white.”

Hanadi Jaradat, a Palestinian female turned homicide suicide bomber, was born on September 22, 1975, in the West Bank city of Jenin. She studied law in the Jordanian Jerash University and graduated in 1999. She had almost completed her lawyer training, and was just days short of getting her law license. She bombed herself and 19 others to death on Saturday, October 4 in the popular Maxim restaurant in the northern port city of Haifa. Her stated reason was to avenge the deaths of her brother Fady and cousin Saleh who were killed by Israeli forces in June.

The music playing in the background of the display was Bach’s Cantata 199, “My heart swims in blood.” The first verse of the Cantata speaks for itself:

Mein Herze schwimmt im Blut, My heart swims in blood
Weil mich der Snden Brut Because my sin’s brood
In Gottes heilgen Augen In God's holy eyes
Zum Ungeheuer macht. Makes me into a monster.

The middle of the Cantata develops with this verse:

Doch Gott mu mir genadig sein, But God must be gracious to me
Weil ich das Haupt mit Asche, Because I wash my head with ashes
Das Angesicht mit Tranen wasche, My face with tears.

The Cantata concludes with:

Wie freudig ist mein Herz, How joyful is my heart
Da Gott versohnet ist. Since God is reconciled
Und mir auf Reu und Leid And through my remorse and sorrow
Nicht mehr die Seligkeit No longer shuts me away from salvation
Noch auch sein Herz verschliet. Or locks me from His heart

The verses have a clear meaning. Hanadi Jaradat’s heart swims in blood because of her sin of the
homocide/suicide bombing that killed her and 19 others. And yet because of her remorse and sorrow, God is gracious to her and no longer shuts her away from salvation. In other words, God forgives her for her dastardly deed of killing 19 others and herself. The conclusion suggests that it is all right to be a homocide/suicide bomber for in the end God will forgive.

Ambassador Tzvi Mazel understood right away that the display was not ambiguous in meaning. That it in fact celebrated a homocide/suicide bomber. In protest Ambassador Mazel pulled the plug on three spotlights illuminating the exhibit, and knocked one light fixture into the red pool. The Feiler’s display was found in the Torah Codes as shown in the table of Figure 3.

Figure 2 shows Dror and Gunilla Feiler, the designers of the floating display, contemplating their creation.

We choose for our protocol five a priori key words: Feiler, פיילר; Snow White, שלון; in Sweden, בשוודיה; floating, מנוע; and display, מציג. Setting the expected number of ELSs to 10, the probability that a text in the ELS random placement text population corresponding to the Five Books, would have as compact a table from the Five Books was not statistically significant. Then we evaluated the five tables for four out of the five key words and the ten tables for three out of the five key words. The most statistically significant table is the one shown in Figure 3. Its p-value is .00115. Since we did 16 experiments, by the Bonferroni inequality, the p-value of the combined experiments must be less than .0184. The experiment is statistically significant.

This table can be further developed as is shown in Figure 4. Here we find the additional a priori words floating, מנוע, and display, מיצג. To find them the expected number of ELSs had to be set to 50. The
probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have as compact table as the one shown in Figure 4 is 15.5/100,000.

<table>
<thead>
<tr>
<th>Feiler</th>
<th>פילר</th>
<th>In Sweden</th>
<th>בשבדייה</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snow White</td>
<td>שלנה</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3 shows the most compact table containing the *a priori* key words for *Feiler, Snow White*, and *in Sweden*. The cylinder size is 69 columns. The probability that a text in the ELS random placement monkey text population would have as compact a table as this is .00115.

<table>
<thead>
<tr>
<th>Feiler</th>
<th>פילר</th>
<th>Floating</th>
<th>משיט</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snow White</td>
<td>שלנה</td>
<td>Display</td>
<td>מיץ</td>
</tr>
<tr>
<td>In Sweden</td>
<td>בשבדייה</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 shows the most compact table containing the *a priori* key words for *Feiler, Snow White, display, in Sweden, and floating*. Using a protocol with expected number of ELSs set to 50, the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have a text with as compact a table as the one here is 15.5/100,000.
Chapter 12
The US Election

In November 2004 was the US election for president. The candidates were George Bush and John Kerry. The two are very different. Bush is clearly the more religious one. In his first address to the Presidential Prayer Breakfast in February 2001, he said, "Faith teaches humility. ... A recognition that we are small in God's universe yet precious in His sight." At the Presidential Prayer Breakfast in February 2002, he asserted that "faith teaches humility, and with it, tolerance. Once we have recognized God's image in ourselves, we must recognize it in every human being."

Bush regards the remoralization of American life and foreign policy as his duty to the country, to the presidential office, and to his faith. Bush is the righteous one.

The table of Figure 1 is based on the phrase Kerry or Bush. The Five Books have only two ELSs of this key word phrase. The minimal skip ELS of the key word phrase has a relevant extension on both sides of the ELS. The ELS Kerry, Kerry, continues with the verb נתרטש כ, the of the Kerry, Kerry. The verb נתרטש כ means will crash. Continuing the ELSBush, Bush, is the verb ירה, will rise. Just to the right of this long ELS phrase is a pair of ELSs מודיק ילת, the righteous one will win. This finding is due to Torah Code researcher Leib Schwartzman who made it public before the day of the election.

<table>
<thead>
<tr>
<th>Will crash</th>
<th>נתרטש כ</th>
<th>Will rise</th>
<th>ירה</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerry</td>
<td>כיר</td>
<td>The righteous one</td>
<td>התלדכ</td>
</tr>
<tr>
<td>Or</td>
<td>אי</td>
<td>Will win</td>
<td>ילת</td>
</tr>
<tr>
<td>Bush</td>
<td>בוש</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1 shows a table for the ELS phrase Bush or Kerry. The ELS for Bush continues with will rise and the ELS for Kerry continues with will crash. The cylinder size is 8286 columns.
Our next experiment is based around the key words in (5)765, election, G. Bush, will be appointed, president. For the year, we tried the alternates 5765, בחירות; in (5)765, בחירות; and in 5765, בחירות. We tried three different words for his winning: will win, ניצח; will be appointed, назначен; and will be elected, נשא. The only statistically significant combination of the nine combinations was will be appointed, назначен. The resulting table is shown in Figure 2. With expected number of ELSs set to 10, the probability that a text in the ELS random placement text population corresponding to the Five Books would have a table more compact than that shown in Figure 2 is less than 1/100,000. Since we tried nine experiments, by the Bonferroni inequality, the p-value for the combined experiment must be less than 9/100,000. When the 9 results of each trial from the 100,000 trials were combined by the harmonic mean, the p-value was 7.5/100,000. Clearly the experiment is statistically significant.

<table>
<thead>
<tr>
<th>Election</th>
<th>בחירות</th>
<th>Will be appointed</th>
<th>נשא</th>
</tr>
</thead>
<tbody>
<tr>
<td>In (5)765</td>
<td>בחירות</td>
<td>President</td>
<td>נשא</td>
</tr>
<tr>
<td>G. Bush</td>
<td>בחירות</td>
<td>נשא</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 shows a table built around an ELS of the word בחירות, election. The table shows that G. Bush will be appointed president. President, נשא, occurs twice indicating two terms. The probability that a monkey text from the ELS random placement text population would have a more compact table is less than 9/100,000.
Chapter 13
Tsunami

About 7AM on Sunday, December 26, 2004, the sea bottom 10 kilometers (6.2 miles) below the surface of the Indian Ocean moved. The India tectonic plate, which is moving northeast at 2 inches per year relative to the Berma tectonic plate, slipped against the Berma plate, for a length of about 720 to 780 miles. This earthquake spread for about ten minutes. The typical earthquake lasts about 30 seconds. Parts of the sea floor rose about 10 meters. Every part of the earth moved at least .4 inches, although this was not necessarily felt. This resulted in a 9.0 magnitude earthquake located about 160 kilometers (100 miles) off the coast of Indonesia’s Sumatra Island. Seismic instruments recorded that the earth trembled and oscillated with a period of about 17 minutes for weeks after the earthquake.

The displacement of the tectonic plates caused a Tsunami, a huge wave, with an energy estimated around that of 1,000,000 atomic bombs that devastated the coastal communities of South Asia. When the waves hit shore, they were three stories high. They swept away everything in their path: boats, cars, houses, and people by the thousands. Indonesia, Thailand, Bangladesh, Sri Lanka, India, the Maldives, Malaysia, and Somalia were among the countries whose coastlines were hit. Nearly two hundred thousand people lost their lives.

In some places, the Tsunami crushed every building, down to the brick foundations of the houses. Palm trees were snapped into splinters. School buildings were transformed into a twisted metal playset. Boats were broken like toothpicks.

Figure 1 shows the coastline destruction caused by the Tsunami. Boats were broken like toothpicks.

Many people have a hard time understanding disasters from a Torah point of view. Natural disasters such as earthquakes and Tsunamis not only destroy property in whole villages and cities, but many innocent people and children perish. This Tsunami killed an estimated 176,000 people. If a natural disaster is thought of in a secular way, then nature is powerful and awesome and sometimes in its natural ways destroys and kills. Nature cannot be held responsible.

From a Torah point of view, everything, including every natural disaster comes from the will of God. Our
tradition teaches that God is responsible and that everything that comes from the will of God is good. From one point of view taught by Rabbi Earl David,

God knows the minds of people and that there is nothing in the world that unites people more than natural disasters and in fact, when we do acts of charity and kindness, we are performing God’s will.\(^{136}\)

This is certainly true and the Tsunami did indeed unite people and countries from all over the world to help and send money and supplies and food to the stricken areas. But how can it be good that 176,000 people died? Certainly not all of them deserved to die. Perhaps a few deserved to die, but not all. What about the innocent ones and the children? Why them? How is this good? We cannot fathom the depth of God’s will. Indeed, for us there is no explanation that has the possibility of being fully understood. The seeming inconsistency between the goodness of God and the loss of lives and property is beyond our comprehension. Furthermore there is no conceivable information that might make it comprehensible. Nevertheless, The Torah and our Sages have given us hints. And even if we cannot understand (or accept) what they say, it is important to know what they have said. We will see that what they have said is supported by Torah Codes.

We read in the Gemara that punishment (in the form of disasters) comes into the world because the Jews are not behaving in a Torah-correct way.

R. Eleazar ben Abina said:

Punishment comes into the world only on Israel’s account; for it is said,

\[
\text{I have eliminated nations, their towers have become desolate;} \text{ I have destroyed their streets without passerby;} \\
\text{their cities have become ruins, without people, so there is no inhabitant. I said,}
\]

\[
\text{‘Just be in awe of Me, accept chastisement, so that her Abode\(^{137}\) would not be terminated despite all that I have ordained upon her.’}
\]

\[
\text{But [instead] they arose early and corrupted all their deeds.\(^{138}\)}
\]

Just prior to these verses about punishment of the nations are the following verses of Zephaniah.

\[
\text{Woe to the filthy and polluted one, the City of Oppression. It did not listen to the voice [of the prophets]; it did not accept chastisement; it did not trust Hashem; it did not draw near to its God. Its princes in its midst are roaring lions.\(^{139}\) Its judges are wolves of the evening.}
\]

---

136. Personal communication.
137. Jerusalem’s Temple and all the other blessings God ordained for it.
139. Preying on the underprivileged.
they do not leave a bone for the morning; its [false] prophets are impetuous, men of rebellion; its priests have desecrated the sacred; they have robbed the Torah. Hashem, the Righteous One, is within it; He commits no corruption. Morning after morning, He brings His judgment to light, it does not fail, but the corrupt become desolate.¹⁴⁰

Zephaniah is telling us first that the Jews are not behaving in a Torah-correct way. And second, he is telling us that one of the consequences is that God visits punishments on the nations of the world. Later on we will see direct Torah Code support for this.

We read in the Gemara another reason for earthquakes -- the rumbling of the earth: The Gemara tells us that when God calls to mind the suffering of the Jews among the nations in the world, He lets two tears fall into the ocean and the resulting sound is the rumbling of the earth.

What are earthquakes? R. Kattina said: A rumbling of the earth. R. Kattina was once going along the road, and when he came to the door of the house of a certain necromancer, there was a rumbling of the earth. He said; "Does the necromancer know what this rumbling is?" He called after him, 'Kattina, Kattina, why should I not know? When the Holy One, blessed be He, calls to mind His children, who are plunged in suffering among the nations of the world, He lets fall two tears into the ocean, and the sound is heard from one end of the world to the other, and that is the rumbling.'¹⁴¹

In the Midrash Shocher Tov, there is an interesting exchange giving two other reasons. The first is that the Jews are not giving enough charity. The second is that when the nations of the world are celebrating even as God’s Holy Temple is in ruins, God peers towards the earth and the earth trembles.

Elijah asked Rav Nehorai:¹⁴²

"Why do earthquakes come?"

Rav Nehorai answered,

"Because the Children of Israel fail to set aside tithes, as ordained."

Elijah rejoined,

"Although things appear to be as you say, earthquakes actually occur when the Holy One, Blessed is He, looks upon the theaters and the circuses of the nations of the earth where the non-Jews sit unperturbed, although God’s Holy Temple is in ruins. At that time He wishes to lay the world to waste, as Jeremiah states:"

Hashem does roar from on high and lets loose His voice from his holy dwelling, again and again He roars because of His habitation.¹⁴³

“However, He does not destroy the entire world, instead,

*He peers toward the earth and it trembles.*”\(^{144}\)

We will see in our first Tsunami table support for this verse.

Over 176,000 people died in the Tsunami. Some drowned. Others were carried by the force of the Tsunami wave and were crushed by either what hit them or what they hit. The table of figure 2, is built around the key words בָּלוֹטָמִי, *in the Tsunami*; and אָסִיָּה, *Asia*; רבבות, *tens of thousands*; טֵלֶעָה, *drowned*; and מָתָה, *died*. This table is the most compact table containing these six key words. Using a protocol with expected number of ELSs set to 20, the probability that these six key words would by chance have ELSs that have a more compact table is about 45/10,000.

<table>
<thead>
<tr>
<th>Tens of thousands</th>
<th>רבבות (And) they died</th>
<th>מָתָה</th>
<th>בָּלוֹטָמִי</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were thrown in the sea</td>
<td>רָמָה בִּים</td>
<td>In the Tsunami</td>
<td>בָּלוֹטָמִי</td>
</tr>
<tr>
<td>They descended in the depths of the sea</td>
<td>יִדְיוֹ בָּמָצָאֵל</td>
<td>In the Indian Sea</td>
<td>בָּמוּ הָרָוָה</td>
</tr>
<tr>
<td>(And) they drowned</td>
<td>טִלָּעָה</td>
<td>Asia</td>
<td>אָסִיָּה</td>
</tr>
<tr>
<td>Water enveloped the chariot (train)</td>
<td>מָיִם יוֹכְסָא אֲת הָרָכָב</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 is a table that is built mainly on an ELS of the word בָּלוֹטָמִי, *in the Tsunami*, with *Tsunami*, on a cylinder size of 216 columns. It shows the connection between the tsunami in the Indian Ocean (*sea*), Asia, and what happened to the people: *tens of thousands of them were thrown into the sea* and they *descended into the depths of the sea* and *water enveloped the chariot* (train).

Amazingly this table is situated in Exodus, chapters 14 and 15. These are the chapters that contain the event of the Reed Sea splitting to let the Children of Israel cross. After they crossed, the Egyptians in their chariots pursued them across. But the sea wall that provided safety for the Israelites, now collapsed and the Egyptians and their chariots were drowned in the Reed Sea. The Torah uses a number of expressions to describe this. It uses the expression רָמָה בִּים, *were thrown in the sea*, and the expression יִדְיוֹ בָּמָצָאֵל,

\(^{144}\) Psalm 104:32.
descended in the depths of the sea. Both of these expressions are equally applicable to what happened in the Tsunami. Both these expressions can be found in the table of figure 2.

Yet there is something more amazing about the location of this table in the Torah. In Sri Lanka, the train known as the Queen of the Sea carried hundreds of residents from the capital to visit relatives or enjoy a day at the sunny resorts near the town of Galle. The route of the train took it along the sea coast. The train had nearly reached its destination, when the Tsunami struck. A wall of water some 30 feet high, enveloped the train and lifted its cars off the track into a thick marsh, killing almost 1200 people out of the 1400 people on the train. The wheels of the train were torn off their axles. As shown in Figure 3, the tracks were twisted up off their railroad ties.

The right side of the first row of the table of Figure 2 contains the end of an interesting and relevant verse relative to our discussion of God peering towards the earth. The verse says:

\[
\text{And God looked down at the camp of Egypt with a pillar of fire and cloud, and He confounded the camp of Egypt. He removed the wheels of their chariots.}^{145}
\]

In Figure 4, we show this verse in a table on a cylinder of size 450 columns. The ELS for בָּצָלָם, in the Tsunami, is the same ELS as the one shown in Figure 2. The ר of בָּצָלָם is the ר of מַטְרוֹן. In modern Hebrew, the word רכָב, here translated as chariot(s), can also be used for carriage, car, and train. Some of the wheels of the Queen of the Sea train were torn off their axles, exactly matching the Torah’s description of what happened to the chariots of the Egyptians.

The Rabbinic commentary on this verse is also interesting. The word used in the verse meaning looked down is יִשָּׁק. Rashi comments on this word explaining that this looking is equivalent to the looking of the Hebrew verb form יָכִין, whose root is הָכִין. Rashi says, “He turned to them to destroy them.”\(^{146}\) This looking is the looking that causes destruction, destruction such as earthquakes.

The connection between God looking and the earth trembling can also be found in Psalm 104:

\[
\text{He peers toward the earth and it trembles, He touches the mountain and they smoke.}^{147}
\]

The word in Psalm 104 that is here translated as peers, is the word הָכִין, a verb whose root is also הָכִין, the same root that Rashi tells us means destruction such as earthquakes.

---

\(^{145}\) Exodus 14:24-25.


\(^{147}\) Psalm 104:32.
Figure 3 shows the aftermath of the Tsunami on the rail tracks carrying the train Queen of the Sea.

<table>
<thead>
<tr>
<th>And looked down</th>
<th>ושם</th>
<th>And cloud</th>
<th>וימים</th>
</tr>
</thead>
<tbody>
<tr>
<td>God</td>
<td>י-ה-ו-ה</td>
<td>He confounded</td>
<td></td>
</tr>
<tr>
<td>At</td>
<td>אל</td>
<td>The camp of</td>
<td></td>
</tr>
<tr>
<td>The camp of</td>
<td>ממצרים</td>
<td>Egypt</td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>ממצרים</td>
<td>And He removed</td>
<td></td>
</tr>
<tr>
<td>With a pillar of</td>
<td>פעמון</td>
<td>The Wheel</td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>אש</td>
<td>From the chariots</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 shows a table built around an ELS of the key word פלטאמיסי, in/with Tsunami. The verse on the first row of the table has the connection between God looking down and the wheels of the chariots separating from their axles. This is the same table as that shown in Figure 2 except it is on a different cylinder size to make the displayed table more compact.
Figure 5 shows the same table as Figure 4. Here, however, in the first row we can see the minimal skip ELS of ḥatzamamim, Tsunami, and the word Asia embeded in the first row.

The table of Figure 6 shows the compact formation of the phrase ḥatzamamim bahodiy, the Tsunami in the Indian (ocean). What is particularly interesting is that running through those ELSs is an ELS for the phrase ṣerar hagolah, arousing the redemption. This suggests that events like the Tsunami will precede the redemption. The probability that ELSs of the two words ḥatzamamim bahodiy and the phrase ṣerar hagolah would appear in as compact a table as this one in a text of the ELS random placement monkey text population corresponding to the Five Books is about 10/50,000,000 using a protocol with expected number of ELSs of each key word set to 10.

We have already discussed how research on and the dissemination of Torah Codes is one of the events that will be associated with the era before Moshiach. In modern Hebrew, one of the phrases that means Torah Codes is ḥolam torah, literally, skipping in the Torah. Therefore, it is no surprise that in this very table are found ELSs for ḥolam torah.

Figure 6 is a table on a cylinder size of 154 that shows the connection between the Tsunami in the Indian Ocean and the arousing of the redemption.
The Tsunami | Skipping | Donald
---|---|---
In The Indian Ocean | Torah | Donald
Arousing | Donald | Donald
The Redemption | Donald | Donald

Figure 7 is a table that shows the development of the table of Figure 6. It shows the connection between the Tsunami in the Indian Ocean, the arousing of the redemption, and Torah skips.

This table can yet be further extended as shown in Figure 8. The area of the world אסיה, Asia in which the Tsunami occurred as well as the Hebrew date יד תב†, the 14th of Tevet, which corresponds to December 26, 2004 both have ELSs within or near this table.

In Hebrew there are three expressions for earthquake. (1) There is the word מוחה, also spelled as מוחה. It has the connotation of an earthquake with horror and terror. (2) The Aramaic word גלַומַה is in the Talmud. (3) There is the Biblical word רעף. It has the connotation of the agitation, the uproar, and the violent motion of the quaking, and shaking of an earthquake. The table of Figure 9 is the most compact table having ELSs of these three earthquake words along with ELSs of The Indian, and the date יד תב† of the year תשמぬ, (5)765. This is the Hebrew date for December 26, 2004, the date of the earthquake and Tsunami.
<table>
<thead>
<tr>
<th>The Tsunami in the Indian Ocean</th>
<th>The Redemption in Asia</th>
<th>Arousing the redemption</th>
<th>Skipping in the Torah</th>
</tr>
</thead>
<tbody>
<tr>
<td>In The Indian Ocean</td>
<td>In Asia</td>
<td>14th of Tevet</td>
<td></td>
</tr>
</tbody>
</table>

Figure 8 is a table on cylinder size 78 columns that shows the further development of the table of Figures 6 and 7. It shows connection between the Tsunami in the Indian Ocean, in Asia, the arousing of the redemption, skipping in the Torah, and the Hebrew date, the 14th of Tevet.
<table>
<thead>
<tr>
<th>Earthquake (Hebrew)</th>
<th>The Indian</th>
<th>Earthquake (Aramaic)</th>
<th>The Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td>תָּעֵה</td>
<td>14th of Tevet</td>
<td>גָּלְאַת</td>
<td>דל טבָּת</td>
</tr>
<tr>
<td>Shaking, Trembling</td>
<td>רעש</td>
<td>(5)765 (2004)</td>
<td>תָּשֶׂש</td>
</tr>
</tbody>
</table>

Figure 9 shows a table which associates the *earthquake in the Indian Ocean* with the date of the *14th of Tevet* (5)765 (December 26, 2004).

Our next table is shown in Figure 10. It is the most compact table having ELSs of the words forming the phrase, רַבּות עֲנֵישִׁים נִסְפָּה בּּלּוֹנֵמִי באסיה די טבָּת meaning *tens of thousands of people perished in the Tsunami, in Asia on the 14th of Tevet.* The table is on a cylinder size of 83 columns. This is the table that supports the verses of Zephaniah, 3:6-7.

Figures 11 and 12 show that within the span of this very table one can find the name of one of the principal anti-Torah political parties and people that during the years 2003-2004 controlled and dominated the government of Israel. The leader of the Shinui party is Lapid. And this is what we find in the table of Figure 11. In Figure 12, we have another table that is within the span of the table of Figure 10 that in addition contains ELSs for Sharon, his son Omri Sharon, Lapid, Shinui, and *Erev Rav,* the mixed multitude. The inclusion of the mixed multitude is particularly telling. When the Israelites left Egypt, Moses took along Egyptian converts, who opportunistically decided that the God of the Israelites was more powerful than the gods of the Egyptians. But their conversion was not a true or deep conversion. Our Sages explain that when Moses did not come down from Mount Sinai when he was expected, it was the *Erev Rav* who instigated the making of the Golden Calf and initiated idolatrous ceremonies to it. The opposition to religion and Torah within various political elements in the government of Israel today are comprised of the spiritual descendants of the *Erev Rav.*
Figure 10 shows the most compact table having ELSs of the words forming the sentence: *Tens of thousands of people perished in the Tsunami in Asia on the 14th of Tevet.* This table is on a cylinder size of 83. The table spans from Numbers 29:14 through Numbers 30:3. In the table we also find an additional word מים, *from the waters.*
<table>
<thead>
<tr>
<th>Shinui</th>
<th>שוויון</th>
<th>Will control</th>
<th>שלטת</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lapid</td>
<td>לפיד</td>
<td>The government</td>
<td>משלחה</td>
</tr>
</tbody>
</table>

Figure 11 shows a table whose span is within the span of the table in Figure 10. The ELSs in the table are those of the prominent Shinui party and its leader Lapid who was influential in forming the Israeli government policies.
Figure 12 contains a table on a cylinder of size 30 columns that is also within the span of the table in Figure 10. In this table we find ELSs for *Shinui*, *Lapid*, *Sharon*, his son *Omri Sharon*, and *Erev Rav*, the mixed multitude.

The next table shown in Figure 13, is built around the ELS phrase רבטה הב נספ, meaning *tens of thousands perished in it*. Alongside of this ELS there is an ELS for בואות, *in the earthquake*. Using a protocol with expected number of ELSs set to 10, the probability that a text would contain these ELSs in as a compact formation as the one here, is 27/10,000. The table spans Leviticus 26:40 through Leviticus 26:44. These are verses within the section of Torah known as the *Tochachah*, Admonitions. In the *Tochachah*, God tells the Israelites that if they follow the decrees and the commandments detailed in the Torah then they will enjoy blessings. But if they do not listen and observe all the Torah commandments, and if they consider the decrees loathsome, then they will suffer from the curses. The second row of the table of Figure 13 contains the beginning of the verse

*I also will behave toward them with casualness and I will bring them into the land of their enemies.*

The context of this verse is that God explains to the Israelites that if they understand the world and behave in it as if God does not exist and God does not matter, then God will behave towards the Israelites in like

148. Leviticus 26:41
manner. This table gives further support to the premise that troubles come to the world because the Jews are not abiding by the Torah.

<table>
<thead>
<tr>
<th>In an earthquake</th>
<th>ביזה</th>
<th>Perished in it</th>
<th>בה נספו</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tens of thousands</td>
<td>רבבות</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 13 shows the most compact table on a cylinder of size 14 having an ELS of the phrase רבבות, "tens of thousands perished in it" and an ELS of the key word ביזה, "earthquake."
Chapter 14
Teshuvah, Mashiach, and End of Days

A few days after the Children of Israel left Egypt, Pharaoh and his army of horses and chariots pursued them. The Torah then tells us,

ג☁הירג ינשא ביני ישראל את עיניהם

A typical translation of this Biblical Hebrew is,

And when Pharaoh drew near, the Children of Israel lifted up their eyes.149

However, this particular translation is actually grammatically incorrect. The Hebrew verb הركة does not mean to draw near. Rather it means to cause to draw near. This is the reason that the Midrash Tanchumah tells us that cause to draw near in this instance means cause to draw near to teshuvah (repentance).

In the Zohar Rabbi Yose says,

It has been pointed out that the word (drew near, literally brought near) is in the causative form, signifying that he brought the Israelites near to God by repentance.150

So הركة means that Pharaoh brought them to Teshuvah. Thus from these sources, the sense of this verse is,

And when Pharaoh caused [the Children of Israel] to draw near, [to God], the Children of Israel lifted up their eyes [and did teshuvah].

As shown in the table of Figure 1, we find exactly this interpretation confirmed in the Torah Codes. Right by the terms הركة, the return or the repentance, we find the minimal skip for הركة, the return or the repentance, in the entire Five Books. Notice that the final of הركة ה is the final of הركة ה and the of הركة ה is the final of הركة ה. With the expected number of ELSs set to 10, the probability that a text in the random

Figure 1 shows the most compact table containing the ELS for הركة ה and הركة ה, repentance.

149. Exodus 14:10.
placement monkey text population corresponding to the Five Books would have as compact a meeting as that shown in Figure 1 of the three key words התשובה, ה сын, והאלה. התשובה is an incredibly small 4/1,000,000.

The next table is based on the terms התשובה, the repentance, and עם הבנים, my children returned. The table in itself is not statistically significant. However, what is interesting is where in the Torah these ELSs appear. The table goes from Deuteronomy 29:28 through Deuteronomy 30:8. In the text of these verses we find that the Torah uses the words התשובה אל לבכם, then you will take it to your heart, and אתה תשוב and you shall return. This is shown in the table of Figure 2. There is a remarkable agreement between where the ELSs are placed and the topic the Torah is teaching.

| the repentance | התשובה | then you will take it to heart | וה glEnable?
| my children returned | עם הבנים | and you shall return |

Figure 2 shows the most compact table in the Torah containing the ELSs of key words התשובה, the repentance and עם הבנים, my children returned. The cylinder size is 26 columns.

The next table is built around the key words התשובה, the repentance; Harness, the joy; and מושיון, Mashiach (Messiah).Harness has the same letters as Harness, which means will make happy. This suggests that Mashiach will bring us happiness. The gematria ofHarness is 358 and this also is the gematria ofHarness. This teaches us that Mashiach will bring us the true and complete/full happiness. This change from happiness to full happiness is indicated by the letter ז. Using a protocol with the expected number of ELSs set to 30, the probability that a text in the ELS random placement monkey text population corresponding to the Five Books would have a table as compact as the one shown in Figure 3 is .0035.

It is interesting that this table occurs in the Torah’s discussion on the offerings of the festival of Passover.
According to tradition, this is the time for Mashiach. All this results from התשובה, the full repentance that will take place at the time before Mashiach.

Figure 3 shows the most compact table containing the ELSs of התשובה, the repentance; השמחה, the joy; and מashiach, Mashiach (Messiah). The cylinder size is 52 columns.

In Talmud Yuma\textsuperscript{151} our sages tell us that at the time that repentance occurs, the redeemer will come and there will be increased security. The next table shows the compact formation of these three words: the repentance, and will come a redeemer, and security. Using a protocol with the expected number of ELSs set to 30, the probability that a text in the ELS random placement monkey text population would have a table as compact as that observed is 4.5/1,000,000.

<table>
<thead>
<tr>
<th>The repentance</th>
<th>התשובה</th>
<th>Security</th>
<th>בטחון</th>
</tr>
</thead>
<tbody>
<tr>
<td>And will come a redeemer</td>
<td>מבאר נא</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 shows the most compact formation of the ELSs for the repentance, and will come a redeemer, and security.

In the next table we ask the question, “Who is Mashiach.” Setting the expected number of ELSs to 10 and searching the Five Books, the most compact table shown in Figure 5 gives the answer, “descendant of Yishai.” However, this table, by itself is not statistically significant. Evidently we need to think about additional key words. Indeed this table has an additional answer entirely in the interactive mode. Within the ELS phrase for descendant of Yishai, יישוי בן יישוי, lies an ELS for I will answer you, אני יישוי. Thus the table states: I will answer you and then proceeds to give the answer, descendant of Yishai. Also in the

\textsuperscript{151} Talmud Yuma, pg. 86b.
The terms for redemption and will redeem. All this is shown in the table of Figure 6.

The section in which this table is located deals with a Jewish servant and who can redeem him. One of them is בַּנְוָיָד, his cousin. On this verse in Leviticus 25:49, Baal HaTurim says that בַּנְוָיָד implies בַּנְוָיָד (son of David = Moshiach). This suggests that the section discussing the redeeming of the Jewish servant is also about the redeeming of the Jewish people. If we add the key word בַּנְוָיָד as a third key word to the key word list, then the probability that a text in the ELS random placement monkey text population would have as compact a table as that shown in Figure 6 is 4.5/10,000.

<table>
<thead>
<tr>
<th>Who is Moshiach</th>
<th>מי משיח</th>
<th>Descendant of Yishai</th>
<th>בן ישai</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will answer you</td>
<td>מי משיח</td>
<td>Will redeem</td>
<td>בן ישai</td>
</tr>
<tr>
<td>Descendant of Yishai</td>
<td>מי משיח</td>
<td>Will redeem us</td>
<td>בן ישai</td>
</tr>
<tr>
<td>His cousin</td>
<td>מי משיח</td>
<td></td>
<td>בן ישai</td>
</tr>
</tbody>
</table>

Figure 5 shows the most compact table for the key word phrases Who is Moshiach and Descendant of Yishai. The cylinder size is 61 columns and the ELS for מי משיח has skip rank 3.

<table>
<thead>
<tr>
<th>Who is Moshiach</th>
<th>מי משיח</th>
<th>Redemption</th>
<th>לאלה</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will answer you</td>
<td>מי משיח</td>
<td>Will redeem</td>
<td>לאלה</td>
</tr>
<tr>
<td>Descendant of Yishai</td>
<td>מי משיח</td>
<td>Will redeem us</td>
<td>לאלה</td>
</tr>
<tr>
<td>His cousin</td>
<td>מי משיח</td>
<td></td>
<td>לאלה</td>
</tr>
</tbody>
</table>

Figure 6 shows a table built around the ELS phrase מי משיח, Who is Moshiach. The table has an ELS phrase answer: I will answer you, אֶלֶךָ; Descendant of Yishai, בן ישai. As well the table has ELSs of the words for redemption, and will redeem, will redeem us, and his cousin. The cylinder size is 58.
Figure 7 shows the phrase: *And he said, “Why is this that you ask for my name?”* going through the ELS for *Name of Mashiach*. The cylinder size is 72 columns.

Figure 7 shows another table developed by the interactive mode built around the phrase *Name of Mashiach*, שם משיח. We look for the minimal skip ELS for שם משיח. Going through this ELS is the in-text phrase meaning: *And he said, “Why is this that you ask for my name?”* Interestingly enough going through this in-text phrase is a small skip ELS שלום, Shilo. *Shilo* is one the names that the Talmud provides for the name of *Mashiach*. This is shown in Figure 8.

Figure 8 shows the skip 4 ELS שלום, Shilo, going through the phrase: *And he said, “Why is this that you ask for my name?”*

Our final table is developed around the theme that was discussed previously. The era of the beginning of the End of Days began in the Jewish year 5736, תשנorpion, or 1976 by the Gregorian calendar. This is the period of the *end of darkness*, יום לפני השבת. This is shown in the table of Figure 9. With the expected number of ELSs set to 10, the probability that a text in the ELS random placement text population would have a table as compact as the table of Figure 9 is 26.5/100,000.

The table of Figure 9 has a very interesting development shown in the table of Figure 10. In the area of the table of Figure 9, we find ELSs for words such as the truth, the hint, the secret, redemption, Mashiach will come, will redeem, will redeem us.
A staff will emerge from the stump of Jesse (the father of David), and a shoot will sprout from his roots. The spirit of the Lord will rest upon Him -- a spirit of wisdom and understanding, a spirit of counsel and strength, a spirit of knowledge and awe for the Lord. He will be imbued with a spirit of awe for the Lord; and he will not need to judge by what his eyes see nor decide by what his ears hear. He will judge the destitute with righteousness, and decide with fairness for the humble of the earth. He will strike the [wicked of the] world with the rod of his mouth, and with the breath of his lips he will slay the wicked. Righteousness will be the girdle round his loins, and faith will be the girdle round his waist. The wolf will live with the sheep, and the leopard will lie down with the kid; and a calf, a lion whelp and a fatling [will walk] together, and a young child will lead them. A cow and bear will graze and their young will lie down together; and a lion, like cattle, will eat hay. A suckling will play by a viper's hole; and a newly weaned child will stretch his hand towards an adder's lair. They will neither injure nor destroy in all of My sacred mountain; for the earth will be filled with knowledge of the Lord as water covering the sea bed. It shall be on that day that the descendant of Jesse, who stands as a banner for the peoples, nations will seek him, and his resting place will be glorious.\(^{152}\)

---

\(^{152}\) Isaiah 11:1-10.
<table>
<thead>
<tr>
<th>End of Darkness</th>
<th>Redemption</th>
</tr>
</thead>
<tbody>
<tr>
<td>קץ לוחם</td>
<td>משלל</td>
</tr>
<tr>
<td>מתייחד</td>
<td>מashiach</td>
</tr>
<tr>
<td>תמר</td>
<td>יבוא</td>
</tr>
<tr>
<td>האמת</td>
<td>Will redeem</td>
</tr>
<tr>
<td>הודה</td>
<td>יאלל</td>
</tr>
<tr>
<td>יאלל</td>
<td>Will redeem us</td>
</tr>
</tbody>
</table>

Figure 10 develops the table of Figure 9. Central in this development is the topic of redemption. Moshiach will come, will redeem, will redeem us.

*It will happen in the End of Days: the mountain of the Temple of the Lord will be firmly established as the head of the mountains, and it will be exalted above the hills, and all the nations will stream to it. Many peoples will go and say, ‘Come, let us go up to the mountain of the Lord, to the Temple of the God of Jacob, and He will teach us of His ways and we will walk in His paths.’ For from Zion will the Torah come forth, and the word of the Lord from Jerusalem. He will judge among the nations, and will settle the arguments of many peoples. They shall beat their swords into plowshares and their spears into pruning hooks; nation will not lift sword against nation and they will no longer study warfare.*

At the present, the all-embracing Unity of God is not overtly visible; accordingly, the created universe appears to be an independent entity that enjoys a self-sufficient existence. In the future, [at the time of redemption] however, the all-embracing Unity of the Creator will be manifest for all to see: everyone will see how the universe is utterly nullified to the Divine light that flows into it and animates it.

*On that day the Lord shall be One and His Name One.*

---


# Appendix 1
## The Hebrew Letters

<table>
<thead>
<tr>
<th>Hebrew Letter</th>
<th>Name of Letter</th>
<th>Gematria Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>א</td>
<td>Aleph</td>
<td>1</td>
</tr>
<tr>
<td>ב</td>
<td>Beth</td>
<td>2</td>
</tr>
<tr>
<td>ג</td>
<td>Gimel</td>
<td>3</td>
</tr>
<tr>
<td>ד</td>
<td>Dalet</td>
<td>4</td>
</tr>
<tr>
<td>ה</td>
<td>Hey</td>
<td>5</td>
</tr>
<tr>
<td>י</td>
<td>Vav</td>
<td>6</td>
</tr>
<tr>
<td>ז</td>
<td>Zayin</td>
<td>7</td>
</tr>
<tr>
<td>ח</td>
<td>Chet</td>
<td>8</td>
</tr>
<tr>
<td>ט</td>
<td>Tet</td>
<td>9</td>
</tr>
<tr>
<td>י</td>
<td>Yod</td>
<td>10</td>
</tr>
<tr>
<td>ק</td>
<td>Kaph</td>
<td>20</td>
</tr>
<tr>
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<td>Lamed</td>
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</tr>
<tr>
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</tr>
<tr>
<td>נ</td>
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</tr>
<tr>
<td>ס</td>
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<tr>
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<tr>
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<td>Pey</td>
<td>80</td>
</tr>
<tr>
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</tr>
<tr>
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<td>300</td>
</tr>
<tr>
<td>ת</td>
<td>Tav</td>
<td>400</td>
</tr>
</tbody>
</table>