

The Religious and Scientific Aspects of the Debate on the Codes Hidden in the Torah at Equidistant Letter Sequences

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[This is a translation of a document originally in Hebrew. Comments added by the translator are marked with this symbol: *-tr*]

Introduction

For the past several years a debate, growing in acrimony, has raged on the question of the scientific validity of the codes hidden in the Torah, as first publicized in the journal "Statistical Science" in 1994 [WRR3]. The theory's authors are Prof. E. Rips and Mr. D. Witztum (hereafter, **WR**), and it came to the world under curious circumstances: The main goal of its authors was not scientific but religious, and science served them only as an efficient means of obtaining their main goal, an overwhelming proof, using scientific tools, of the Divine origin of the Torah. **WR**'s willingness to use scientific methodology was very limited: they were not willing, for example, to check with scientists who were expert in the history of the Masoretic transmission and see what these experts had to say about the quality of the Biblical text which served as the base for their experiments (Tanach Koren). The scientific facade they wished to give their work focused mainly on the realm of the mathematical-statistical, and through that they tried to prove that in the era of computers and through the use of computers one could find encoded in the Torah hints about future events which the theory of probability could not explain as random chance or human action, and therefore the obligatory conclusion for the matter was Divine origin.

The theory, therefore, was meant from its very conception to appeal to two groups, each with its own vocabulary and terminology and ways of thinking: A. the religious-Charedi community, and B: the scientific community. The theory's conception and birth occurred in the specific Charedi circle of those who returned and who returned others to religion [outreach]. Its two authors themselves belong to this circle, and the theory's main practical use made since being discovered has been in the outreach movement (also called the *kiruv* movement), as can be seen, for example, from the curriculum of the Discovery Seminars at the Aish HaTorah yeshiva, the flagship in the field of *kiruv*. The idea is a methodological one, brilliant in its simplicity: since many of the secular come from a world in which science holds a central place, one can create the first, often the determining, persuasive meeting between them and the Jewish Torah through "scientific proofs" of the Divine origin of the Torah. The theory of hidden codes was meant to supply these goods.

The claim was therefore, naturally met with great joy and open arms by many in the religious-Charedi community. They may not have understood the theory's scientific background, but they were happy at the appearance of a new, non-conventional, and

amazingly powerful weapon in the religious/secular debate. On the other hand, the scientific community, for whom the critical approach is part and parcel of its nature, began to scrutinize the quality and reliability of the study as published in the above journal, and the scientists' doubts on this issue grew. Among those who doubted the study were famous religious scientists, including those who at first were inclined to treat the study seriously, but changed their minds after additional consideration of the study's quality and the circumstances under which it was conducted. The exacting scrutiny and identification of weak points in the study was done by a small group of researchers who devoted a great deal of time to the many experiments required, but the detailed work of these researchers, portions of which were published on the Internet and other forums, unequivocally proved to the scientific community the lack of statistical validity of the Codes study. This community, including its greatest scientists, now stands almost unanimously united in its opposition to the "scientific" presumption of the hidden codes theory. This finds its expression in a statement of opinion signed by more than 50 scientists from all over the world, disqualifying the scientific validity of the research from a mathematical-scientific viewpoint **[Statement]**. At least from the viewpoint of the scientists, the discussion is over and done with, and this recently found symbolic expression in an article by Brendan McKay, Dror Bar-Natan, Maya Bar-Hillel, and Gil Kalai **[MBBK]** summarizing the scientific claims of those who oppose the theory, published in the same journal (Statistical Science) that had published the article by Witztum and his colleagues **[WRR3]** which started the polemic.

This is not the case in certain circles of the religious-Charedi community. The outreach circles (especially the Aish HaTorah yeshiva), for whom the theory of hidden codes serves, as we've said, as one of the cornerstones of their educational programs and activities, began to feel the earth falling away from beneath their feet. They went to battle against the news, with Mr. Witztum himself in the vanguard. It was important, first and foremost, to maintain the scientific image of the study, and therefore Witztum began to use quite forceful means in responding to the complaints of the critics and in demolishing their methods of proof. From these efforts, as we shall see, wafted the strong smell of demagogic style and after-the-fact casuistry meant to put out the fires; they did not succeed in convincing even one scientist to retract his objection to the scientific validity of the study. Quite the contrary—following these efforts, the negative impression made on scientists by the method in which the study was conducted only grew stronger. But in Charedi circles the theory still resonated, not because of the depth of their understanding of the scientific basis of the issue, but because of additional means of survival which Witztum introduced into the debate on the existence of the hidden codes, means unconnected to the scientific debate but which have special significance in this circle.

Means of persuasion aimed at the Charedi-religious community

In approaching the Charedi-religious target audience, Witztum balked at no means to succeed in his battle for the survival of his theory. Towards this end he enlisted the help of, on the one hand, the sensationalist Charedi press (such as the weekly "Mishpacha," which dedicated, with Witztum's encouragement, at least two long

articles to the issue, each full of incorrect, unchecked information and baseless accusations against the critics of Codes), and on the other hand rabbis well known in the Charedi community, who wrote letters of approbation on the importance of dealing with the Codes. Some of these letters were worded more enthusiastically, some less—between the lines one could read the doubts about this activity.

This activity reached its zenith with the issuance of a document signed by three rabbis and Halachic arbiters, mainly connected to the *Edah Charedit*. The document was meant to serve Witztum and his cohorts as a means of persuasion and even of intimidation, to force a faith in the correctness of the theory upon those religious Jews inclined to doubt its correctness or even who object to it. The document is a sort of *daat Torah*—"opinion of the Torah" (thus, at least, is it presented by the Aish HaTorah yeshiva, see below, in the letter of Rabbi Salomon) by two of the most prominent rabbis, Rabbi Baruch Shmuel HaCohen Deutsch and Rabbi Shlomo Fisher, and an appendix by Rabbi Shmuel Auerbach is attached. Later on we will present a detailed analysis of this letter, with which Witztum managed to completely blur the lines between Halachic authority and scientific authority. But first let us look at the concluding sections of the document and see the new note they add to the debate on Codes: a note of defamation against those who oppose Witztum's work and a threat to any religious Jew who dares agree with the dissenters. This is the summary as given in the document:

In light of all this, we steadfastly determine that there is no hint in the work of Rabbi Doron Witztum, Prof. Eliyahu Rips and Rabbi Shlomo Zalman Havlin of any deception or fraud, G-d forbid, and all the claims of the above-mentioned opponents **are evil, false accusations and anyone lending a hand to assist them are destined to be brought to account.** (All emphases and parenthetical notes, here and in the following citations from this document, are mine. M.C.)

In the appendix Rabbi Shmuel Auerbach adds the following lines:

I also hereby testify that those who signed above are truly Jewish greats and certainly are faithful in all their words, and **the main topic I do not know, but it is clear and certain to me that all those who fight against the issue of hints at equidistant skips do a very great injustice, and even those who fear G-d's word who join these fighters and become, G-d forbid, partners in this impure construction are destined to be brought to account.** May G-d turn their hearts...

So: In Witztum and company's desperate attempt to stop the debate on the validity of the Codes, at least within the religious Jewish world, they are willing to push aside all relevant debate and bring religious authority into the picture. The new weapon is a "Torah opinion," signed by well known rabbis, accompanied by threats against any who dare violate it. This weapon was put into use as soon as it appeared, as the next letter will prove. It was sent by Rabbi Yaakov Salomon, Educational Director of the Discovery Seminars, a part of Aish HaTorah, and was sent to Rabbi Adlerstein of the United States. Rabbi Adlerstein, an Orthodox rabbi, is one of the opponents to the theory of hidden codes and is a public and enthusiastic supporter of

the battle waged by Prof. Barry Simon, a distinguished scientist in the fields of physics and mathematics, against the scientific validity of the study on Codes.

This is the text of the letter:

It is my belief that you and I share the same common goal,—Kiddush Shem Shomayim [sanctifying G-d's name *-tr*]. You've dedicated your life to Avodas Hashem [the service of G-d *-tr*] and my respect for you, your knowledge and intentions is enormous.

But now R' Yitzchok comes the “true test”. We, at DISCOVERY, seek only the truth. And I, personally, am interested in Kiruv using only emes [truth *-tr*]. I think you know that. And I trust you still believe that. In line with that hashkafa [outlook *-tr*], I recently traveled to Baltimore and met for one and half-hours with R' Yaakov Weinberg—a man I assume you have high regard for. The subject, as you can guess, was CODES. He has been quite familiar with codes for many years.

Very briefly, R' Yaakov NEVER questioned the validity of the Codes phenomenon. He did voice some concern re “perception” by the unsophisticated public, but concluded with a full endorsement of our continuing presentation of Codes lectures. (Rav Moshe Heineman had long ago supported our codes classes and research.)

Perhaps more significant, however, is the letter we just received from three Gedolei Yisroel [major rabbis *-tr*]—Rav Boruch Shmuel Deutsch shlita, Rav Shlomo Fisher shilta, and Rav Shmuel Auerbach shlita (letter enclosed).

As you can see, all of them clearly endorse the research and proliferation of Codes and warn opponents—that they are *atidim liten et hadin* [will, in the future, have to face judgement *-tr*].

R' Yitzchok, surely you cannot ignore the EXPLICIT DIRECTIVE of Daas Torah...even if you do not agree with their findings. Surely you realize that no respected Rov [rabbi *-tr*] puts his opinions in writing, and in such strong words, without carefully considering all the facts and ramifications of his endorsement. And surely you must agree that given this information, you should, at the very least, TEMPORARILY halt your slander campaign against CODES and Aish Hatorah!

R' Yitzchok, the “true test” of your life philosophy has arrived. Can you defy or ignore Daas Torah? Yom Kippur beckons. *Atidim liten et hadin* is a scary admonition this time of year. Dare you risk the warnings of our Gedolim? I believe you'll do the right thing. I certainly hope so. [This is the original English text, including the upper-case words. Bold face was added by M.C. *-tr*]

Woe to eyes which see thus. Is this style, which seems to be wrapped in a shroud of fear of Heaven, the style in which Aish HaTorah, with the support of a "Torah opinion" by well known rabbis and at Witztum's encouragement, will wage the battle

on the correctness of the hidden codes method in the Charedi-religious community from now on?

History of the relationship between Mr. Witztum and Rabbi Shlomo Fisher

This document, called in the above letter an "opinion of Torah," will continue to occupy us; but before we analyze it in detail, let us bring before the readers some background which will help them better understand the viewpoint of the document itself and the responses to it. We will open with the historical background of the relationship which developed between Witztum and one of the signatories to the document, Rabbi Shlomo Fisher on the topic of Codes research. All details are taken from Witztum's own descriptions in an article [Witz2, pg. 26] in which he responded to the critique of Prof. B. Simon, an important scientist and an Orthodox Jew, about the Codes method [Simon]. Among other things, Witztum in this article describes his first steps in Codes research and reveals to his readers that at one stage of his life he decided to drop his work towards a doctorate in physics, which had occupied him until then, and devote himself to Torah. Not long afterwards Dr. Rips, who had begun at that same time to delve into the topic of Codes, pleaded with him to return to his scientific activities so he could join Rips in this work. Witztum, who had already begun to live his new life following the creed of "his Torah is his craft," decided to consult on this fateful question with Rabbi Shlomo Fisher, a prominent religious figure. In the article he details the two main questions he asked during this consultation:

- 1st. Is it appropriate to abandon the study of Torah for many years in favor of the proffered statistical work?
- 2nd. Is the text of the Torah which we now have indeed precise to its very letters (that is: is it the exact same sequence of letters which was given to Moshe at Sinai)?

The answers to both questions were affirmative, and so the scientific research into the hidden codes in the Torah was born, with the full encouragement of Rabbi Fisher, who later on gave further encouragement.

Do not take Rabbi Fisher's answer to the first question lightly. It is worthwhile to recall that the principle of "his Torah is his craft" is considered by the Charedi world amongst the "be killed rather than disobey" rules of life, to the extent that even the vital security needs of Israel do not, as is known, take precedence. And suddenly, an important rabbi agrees to forgo this principle in favor of scientific experimentation whose outcome still seems to be wrapped in fog; not only does he forgo this principle for the near future, but for many long years. It is difficult to understand Rabbi Fisher's motives unless we assume that he was deeply convinced by Mr. Witztum of the great importance of this "research" for the Torah world and of his assured success, so that he invoked a different Halachic principle which supercedes the one above: "When it is the time to act for the Lord, overturn the Torah." Therefore we are dealing with an obsessive presumption of the success of Codes research in which both the researcher, Witztum, and Rabbi Fisher, the supporter who gave his blessing and later safeguarded Witztum are involved. This situation makes it very easy, perhaps, to pave a way for Codes theory in Charedi-religious Judaism. However, it creates great problems, as we shall see, from the viewpoint of the scientific community, which reacts with suspicion

to any such presumptuous study, one carried out by researchers who have a vested interest in its success and without any objective control mechanism in place for its problematic processes.

Rabbi Fisher's answer to Witztum's second question, the issue of the accuracy of the Torah text that we now have, is also worth great attention, both in terms of Witztum's very application to this particular source and the rabbi's answer. It would seem that choosing to go to this source is most questionable. Do not forget that we are speaking of someone who wishes to conduct an experiment, which he defines as "scientific," on a text thousands of years old, and to prove that codes were hidden therein from the very start. The question of the accuracy of its transmission from then to now is, therefore, a basic empirical question without which there is no point at all to the research. The answer to this question should be sought within the framework of scientific expertise and not within the framework of rabbinical decrees. But that is not how Witztum acted; we have no hint in all the verbiage and all the ink that has been spilled to this day on the topic of "Codes research" that Witztum ever consulted with scientists expert on the topic of the textual transmission. On the other hand, Witztum tells us he asked Rabbi Fisher about this. Is this really the proper source for such a question from one who pretends to conduct a scientific experiment?

But the reason for the inquiry is clear: Witztum knew full well that a scientist's answer would be unambiguous and unsuitable as a launching pad for research on the Codes. The scientist's answer would be: The Torah text in the Koren Tanach or in that of any other contemporary publisher is not and cannot be exactly the same sequence of letters as the original version of the Torah text, for that version disappeared over the long years of transmission. If this is the way matters stand, there is no reason at all to begin searching for hidden codes which are entirely dependent on the opposite assumption. Witztum preferred, therefore, to turn to a rabbi on this issue, assuming that he would get the answer he sought.

But the answer is even more puzzling than the question. Of course I do not expect scientific knowledge of this topic from Rabbi Fisher, but I did expect that he would have a wide knowledge of the questions which have been asked in religious forums on the issue of the accuracy of the text and the answers that were given. My knowledge on this matter, some of which I will present to the reader, does not, of course, stem from my being a Halachic arbiter, but from my occupation as a researcher into the history of the transmission of the Biblical text. In that framework I have also studied the way this issue is presented in Halachic texts over the centuries, and I can definitively determine that the basic assumption which guided the great Halachic sages through all those generations was that the Torah text of their times and places was not exactly identical to the text given to Moshe at Sinai, but was the fruit, on the one hand, of distortions which took place over the course of centuries, and of decisions made by scholars between varying versions in different generations and different places on the other hand. Before we return to dealing with the development of the **WR** statistical study and the growing debate surrounding its scientific validity, we should bring some sources reflecting the view of Torah greats on this issue, a view basically similar to that of the scientific research Witztum tried to skip over in his race to dizzying "scientific" success.

The opinion of the Torah greats throughout the generations on the historical accuracy of the Torah text

All Torah greats, in all generations, who through their authority as Halachic arbiters or as writers of the laws of Torah scrolls gathered information on the question of the accuracy of the text, made a distinction between an unfortunate textual reality which no longer allows the identification of the true historic text and between the Halachic authority which allows the determination of an authorized version at any time and in any place, according to Halachic criteria. Everyone agrees about the historic question; there is no Torah scroll about which it can definitively be said that it is a true representative of the text which was given to Moshe at Sinai. On the other hand, we can find various opinions about the fitness of a Torah scroll, all relying either on the principles of Halachic arbitration such as following the majority or an expert, or on a certain acceptance of the diverse reality, based on "When it is the time to act for the Lord, overturn the Torah," or conceding that we have been "forced." The examples which will be brought below are only reference points in the Halachic debate which raged on this topic. We will proceed from the more recent to the earlier.

The Chatam Sofer, in answering a question asked several times, why we do not make a special blessing when finishing the writing of a Torah scroll, though it is a commandment from the Torah, says in one of his responsa (Responsa Chatam Sofer, Part One, 52):

...To my mind there is no need for this question, for had Chazal been experts in defective and plene spelling, they would have set a blessing for the Torah scroll, but as they themselves were not expert, as brought in Kiddushin (30a) that they were not expert even on the verses, and even more so as the Masorah sometimes disagrees with the Gemara and we write according to the Masorah; a scroll written according to the Gemara is invalid. It is asked in Tractate Niddah 36a and the Tosfot there, on the topic of defective spelling (HN\$A), that it was missing a *vav*, see there; the law is as in the Gemara, but when writing a Torah scroll we write it plene, with the *vav*...

The Chatam Sofer leaves no room for doubt about his stand on the situation of Torah scrolls in any recent historical period, from the days of Chazal to our times: we are not expert in the matters of defective and plene spelling in the Torah, not even on the verses. This basic stance he gleans from the famous words of Rav Yosef in Tractate Kiddushin (30a) on the state of manuscripts in Babylon: "They are expert in matters of defective and plene spelling; we are not expert." Similarly, he points out that there are contradictions between the Masoretic text and the versions mentioned in the Gemara, and often we even find Halachic midrashim based on versions which do not exist in the Masoretic text. According to the Chatam Sofer, Halacha settles these differences by making a distinction between two levels: A. the manner in which scrolls are written, following the Masorah, and B. the laws learned from another version which still has some measure of authority.

The Chatam Sofer says his words briefly, and he does not go into a discussion of several basic questions which may arise on this matter, such as: how can this stance be reconciled with the known Halachic statement, "A Torah scroll missing even one letter is invalid" (Rambam, The Laws of Tefillin, Mezuzot, and Torah Scrolls, 1:2).

This statement is one of the main causes for the common notion that many hold about the undamaged transmission of the Torah. How shall we understand it against the background of the Chatam Sofer's words?

This very question, about the seeming contradiction between the assumption that we are not now expert in the details of the letters of the Torah scroll and the Halachic formula of the Rambam, stands at the center of a discussion by Rabbi Abraham, the son of Mordechai HaLevi, the author of "Ginat V'radim," who preceded the Chatam Sofer by some hundred years. Below are the main points which touch on the topic we are discussing (Responsa Ginat V'radim, "Orach Chaim", rule 2, section 6):

Question: Rabbi, tell me. The Rambam said in the Laws of Torah Scrolls that there are twenty things of which if even one occurs the scroll hasn't the sanctity of a Torah scroll and we do not read from it in public. Among these twenty things is if even one letter is missing or there is one extra letter. This is difficult, for at this time we do not have any scrolls which are truly kosher and which are as the Torah was given at Sinai. Even at the time of the Talmudic sages there were no kosher scrolls at all, as brought in Kiddushin 30a: The *vav* of Gachon is half of the letters of the Torah scroll. Rav Yosef asked if it were on one side of the center or on the other. They wondered why one would question, when he could count it in the Torah. He explained that we are not expert in the matters of defective and plene spelling. Now, if the sages of the Talmud before us were not expert in matters of defective and plene spelling, what of us, who have been tossed and turned time after time and our hearts have grown smaller? And so, shouldn't the Rambam have at least said that this is the way it should have been according to the Torah, but in these times, when we have no Torah scrolls that are as they should be, exact in defective and plene spelling, one should allow it; it is not possible otherwise.

Answer: It is said in Tractate Soferim (6:4) that three scrolls were found in the Temple court. In two it was written *meonah* and in one *maon*. They went according to the two and rejected the one, and the same with *zaatute* versus *atziley*. They did correctly when they ignored the single scroll in favor of the two others, for from the Torah we are told to follow the majority in every issue, though it is possible and even common that we miss the truth... and likewise, the people of the Temple court, when they found a disagreement in the scrolls, went according to the majority.... Therefore we find that the words of the Rambam OBM were correct, because... each scroll can be checked to see how it was, and we can settle controversies between the scrolls by following the majority. A scroll which is checked this way will be considered as though it had been given at Sinai, and any defective or plene spelling different from that will be considered as invalidating, and such a scroll would have none of the sanctity of a Torah scroll...And therefore the scribe's copybook, set for us by the Rishonim, should not be added to nor taken away from, for it is as though we have received it from Sinai...

Both the question and answer are interesting and most instructive. The question is asked on the ideological plane and not necessarily connected to any actual problem. The questioner finds it difficult to reconcile the words of the Rambam about the matter of a single letter invalidating a Torah scroll with the well known assumption amongst the cognoscenti, which he does not doubt, that no one knows the authentic letter sequence of the Torah, not at this time nor at the time of Chazal. In his answer, the author of "Ginat V'radim" separates between the two ways of viewing this issue: A. the ideological view and B. the historical view. Historically it may in fact be true that Torah scrolls in different communities are not exactly the same text as that given at Sinai. But Halachically one must apply the notion of "Torah from Sinai" to every human decision made according to the Halachic principle of following the majority. The first testimony of such a textual determination in this manner is found in the story of the three scrolls found in the Temple court, and it therefore is discussing Second Temple reality. In the Holy Temple itself there were scrolls which were textually unlike each other, and they decided amongst them to determine an authorized text. From that moment on the scroll which represented those decisions (apparently the "Masoretic text") is considered **as though** it were given at Sinai, though it is possible that the text does not represent the correct version from a historical standpoint. In a similar fashion, there have been decisions based on the majority from time to time, and the rule about these decisions is not different than that of the first decision. The words of the Rambam about the addition or lack of a single letter invalidating a Torah scroll deals, according to the author of "Ginat V'radim," with the consolidated text determined by those decisions.

We will now consider an even older textual reality, the one which prevailed in the different centers of transmission throughout the Diaspora, and how the Torah greats related to it when they wrote the laws of a Torah scroll in an effort to instruct the scribes in their writing. We will begin with the decision of the Ramah (Rabbi Meir the son of Todros HaLevi, from Toledo in Spain, who lived in the 13th century), one of the great Spanish Halachic arbiters (author of the "Yad Ramah") and a great expert on matters of the Masorah and text. In his book "Masoret Syag LaTorah" he writes, among other things:

...All the more so now that due to our sins, the following verse has been fulfilled amongst us, "Therefore, behold, I will again do a marvelous work among this people, Even a marvelous work and a wonder; And the wisdom of their wise men shall perish, And the prudence of their prudent men shall be hid"(Is. 29:14). If we seek to rely on the proofread scrolls in our possession, they are also in great disaccord. Were it not for the Masorah which serves as a fence around the Torah, almost no one would find his way in the controversies between the scrolls. Even the Masorah is not free from dispute, and there are several instances disputed [among the Masorah manuscripts], but not as many as among the scrolls. If a man wishes to write a Halachically "kosher" scroll, he will stumble on the plene and defective spellings and grope like a blind man through a fog of controversy; he will not succeed. Even if he seeks the aid of someone knowledgeable, he will not find such a one. When I, R. Meir HaLevi Ben Todros of Spain, saw what had befallen the scrolls, the Masorah lists, and the *plene* and defective spelling traditions, due to the ravages of time, I felt the

need to search after the most precise and proofread codices and the most reliable Masoretic traditions, to resolve the conflicts. The newly-produced scrolls should be abandoned in favor of older, more faithful ones and among these the majority of texts should be followed as commanded in the Torah to decide any controversy, as it is written: "After the multitude to do"...(Ex. 23:2).

The Ramah was one of the few Torah greats of any time who not only was a sage in the Torah, but also was an expert on matters of Masorah and text. Not for naught did he become the recognized expert in this field, both in his generation and in the generations following. His book, "Masoret Syag LaTorah," represents an expert's painstaking comparison of thousands of Masoretic notes and examination of scrolls which he calls "the most precise and proofread." The results of this comparison were applied in his instructions on writing Torah scrolls. This work had a decisive influence on the shaping of the Torah text in both Sephardic and Ashkenazic communities, an influence which was already growing during the era of manuscripts but which reached its full force in the age of printing, the revolutionary technology which created new possibilities for accelerating the unification of the text everywhere. New means of distribution, which allowed quick and wide-spread distribution of authoritative books, led to an accelerated unification of the text around the image of the "Masoretic text," even in places where the text used for hundreds of years was quite different than this image, such as Ashkenaz (see below). The Torah text printed in the first edition of "Mikraot Gedolot" is still not identical to the letter-sequence the Ramah suggested [it has dozens of changes, fifteen in Genesis alone, including: "*meneurav*" (MN@WRYW) (Gen. 8:21), "*hakimoti*" (HQYMTY) (Gen. 9:17), "*vayehe*" (WYHYW) (Gen. 9:29), and "*ohalo*" (AHLH) (Gen. 26:25)], but printings of the "Tikkun Sefer-Torah" based on the Ramah's decisions, along with a few additional decisions made by R' Menachem Di Lunzano (end of the 16th century), in his book "Or Torah," formed the precise Masoretic text common today in the Torah scrolls of both Sephardic and Ashkenazic communities; it is also the text of the Torah in the Koren Tanach.

We will now move on to the Rambam, one of the greatest of Torah greats in all generations and an older contemporary of the Ramah. He also wished to show the way for scribes in their writing of Torah scrolls. The Rambam was then in Egypt, and the description of the textual situation which appears in his Laws of a Torah Scroll [chapter eight, Halacha four] reflects mainly the textual reality in Eastern lands. The description centers mainly on the "open" and "closed" chapters and the structure of the songs, an inexactness in which can also invalidate a Torah scroll, but there is no doubt that he also meant other textual phenomena, such as defective and plene spelling:

Since I have seen great confusion in all the scrolls in these matters, and also the Masorettes who wrote [special works] to make known [which sections are] "open" and "closed" contradict each other, according to the books on which they based themselves, I took it upon myself to set down here all the sections of the Law, and the forms of the Songs [i.e. Ex.15, Deut.32], so as to correct the scrolls accordingly. The copy on which we based ourselves in these matters is the one known in Egypt, which contains the whole Bible, which was

formerly in Jerusalem so that scribes might correct copies according to it. Everybody accepted it as authoritative, for Ben-Asher proofread it and was exacting about it for many years. And I used it as the basis for the copy of the Torah Scroll which I wrote according to the Halacha.

So here, too, textual reality teaches us about the many differences between the texts of Torah scrolls, but the solution which the Rambam offered is different from the solution of the Ramah. Since he had a famous scroll available to him, written by one of the great Masorettes, Aharon Ben-Asher (this scroll is the "Keter Aram Sova," now found in the Israel Museum), he does not follow the majority, but relies upon the vast expertise of Ben-Asher and in accordance writes his own scroll, which later serves as a model for the writing of other scrolls. [It appears that the text of the Yemenite community is copied from this scroll.]

A much more serious textual situation of the Medieval Torah scrolls, is reflected in the words of Rabbenu Tam, the greatest Tosaphist and the leader of the Ashkenazic Jewry in the first half of the 12th century. He also checked the Torah scrolls in his area while preparing to write the laws of Torah scrolls, and the results are reflected in his words [The Laws of Torah Scrolls, Machzor Vitri, pg. 654]:

From now on, pay attention to the exactness of scribes and the bodies of the letters, for they are not expert in the accuracy of the text, as Rav Yosef said at the end of chapter one of Kiddushin: "They (in Eretz Israel) are expert in defective and plene spelling; We are not expert." And because it is a time to act for the Lord, our scrolls are also considered 'kosher.'

Thus, Rabbenu Tam determines that the Torah scrolls in the area of Ashkenaz are not exact due to the lack of expertise on the part of the scribes. The textual situation is similar to the situation in Babylon of Rav Yosef's time. Rabbenu Tam does not even suggest deciding upon a text, following the majority, for the textual state of scrolls in Ashkenaz was so diverse that there would be no point in deciding according to the majority. The validity of Torah scrolls does not stem from their level of exactitude, but only from the power of the Halachic rule, "When it is time to act for the Lord, overturn the Torah."

This situation did not significantly change in Ashkenaz until the end of the Middle Ages, as can be proven from the testimony of one of the leaders of the generation at the end of the 14th century and beginning of the 15th, Rabbi Yom Tov Lippman Millhousen [in his book "Tikkun Sefer Torah"]:

Because of our many sins, the Torah has been forgotten and we can not find a kosher Torah scroll; the scribes are ignoramuses and the scholars pay no attention in this matter. Therefore I have toiled to find a Torah scroll with the proper letters, open and closed passages, but I have found none, not to mention a scroll which is accurate as to the *plene* and defective spellings, a subject completely lost to our entire generation. In all these matters we have no choice [i.e. we are Halachically considered *anusim*]

We should note that Rabbi Yom Tov Lippman Millhousen, who served as a religious judge (*dayyan*) and head of yeshiva, particularly in the city of Prague, was known for his wanderings and his activity throughout the wide Ashkenazic sphere of influence, starting in Germany and ending in Poland. The tone of despair about his fruitless

efforts to find a properly written Torah scroll thus encompasses all the above territory. We find, therefore, that nothing substantial changed in the Ashkenazic areas since the days of Rabbenu Tam. Not only that, but the spreading of the Germanic community eastward into Poland and Russia only expanded the territory subject to this reality.

We will conclude our overview with the words of the Radak (Rabbi David Kimchi), one of the great Medieval Bible commentators, who brings an opinion on the formation of the Masoretic text itself. At the end of his introduction to the early Prophets, he mentions some of his principles for Biblical interpretation. Among others, he explains how to handle the interpretation of *ktiv and kri*, and even brings his opinion on the source of the phenomenon. The Radak apparently thought of the reference in Chazal to the three scrolls found in the Temple Court and finds therein an echo of widespread textual activity by the Men of the Great Assembly to set an authorized text for all holy books after they had been distorted in the first exile. In this framework many determinations were made between different versions (above and beyond the three examples mentioned in the passage by Chazal) based on the Halachic principle of majority versus minority. These determinations are no longer to be observed in our text; the only remnant left of that process is the phenomena of *ktiv and kri* which were created in those cases which could not be decided, and therefore both versions were adopted. This is what he writes:

And I will also write the reason for *ktiv and kri*, and for what is written but not read and what is read but not written, when I can give a reason for each of them, each in its own place. It seems to me that these words are found here because in the first exile books were lost and unsettled, and the sages who knew the books died, and the Men of the Great Assembly returned the Torah to its former glory. They found disputes between scrolls and went according to the majority; when they could not completely clarify the matter, they write one and did not pointillate it, or wrote in the margin and not in the text, or wrote one way in the text and another way in the margin.

There is no doubt, therefore, that had Witztum lived in one of the earlier generations, from the days of the Second Temple to the 19th century, and had he brought a clearly formulated question to any sage of his generation in any land, asking about the success of the transmission in maintaining the original letter sequence of the text, he would have been answered in the negative. So why is our generation different from previous generations? Has something happened to clarify to the religious arbiters of our days what was not clear to earlier generations? Based on what did Rabbi Fisher give the positive answer which allowed the wild dance of Codes research?

The unambiguous answer which a man of Halacha would be obligated to give would be similar in essence (though not necessarily in details) to the answer which would have been given by one who researched the history of the text, had he been asked: No edition of the Tanach, neither the Koren edition nor any other edition, represents, nor can it represent, the original text of the Torah down to its letter sequences, since there is a great deal of testimony from each and every generation of a varied textual reality (and this does not mean isolated changes, but hundreds and even

thousands of changes) which required Halachic determination at different times and places to set an authorized text. Therefore any statistical research made on the basis of an assumption that the text is **historically** accurate is necessarily based on nothing. At this point Rabbi Fisher should have stopped the pretension of Witztum's statistical research by a reasoned Halachic decision .

The list of names, appellations, and dates which served as the base for the statistical experiments

Until now we've spoken about the preliminary scientific conditions which a researcher who wishes to base his work on the accuracy of the letter sequence in the text and pretends to be a scientist must clarify, and which Witztum did not. From my point of view, as one who has for many years researched the history of the textual transmission, what has been said until now is enough to completely invalidate the scientific validity of research which seeks to find codes hidden thousands of years ago, at the very beginnings of the text, in the letter sequences of a contemporary edition of that text. But since it seems to me that the scientific flaws of codes research do not end with what was not done, but also include what was done, I will devote the following discussion to clarifying the scientific validity of the research process itself.

The question has two aspects: A. the textual aspect, and B. the mathematical-statistical aspect. The textual aspect is tied to the first stage of the research, that is, to the preparation of lists of names and appellations for the Torah greats [hereafter: the list] and the dates of birth and death. Several trenchant questions arise in this area which touch on the scientific validity of the major decisions made in preparing the list, such as: the scope of the material included in the list, the principles behind the choices of names and appellations, their manner of being written, etc. The statistical aspect mainly deals with the second stage, the experiment itself and the statistical method which was implemented. This final aspect will, of course, be outside the scope of our discussion, and anyone who is interested in the details of the critique of the statistical method in **WR's** research can read the instructive article by experts on the topic which has recently been published [**MBBK**]. But one of the statistical method's problems is also tied to the first stage, and it is: the existence of a priori conditions in the preparation of the list, without which the scientific validity of the statistical experiment is nullified. Clarifying this issue does not require knowledge of statistics, only the ability to analyze the testimony and the facts, and we will begin our discussion there. The question we will discuss in this context is: did the processes of preparing the lists actually occur under conditions which would stand up to the test of being a priori, and were they absolutely free of the direct or indirect intervention of those who actually conducted the research?

[A continuation of this article will be published, G-d willing, soon. It will discuss in detail questions connected to the process of preparing the list of names and appellations and its implications about the scientific validity of the whole experiment. At the end of the article we will return to the discussion of the "Torah Opinion" mentioned in the introduction above, and we will discuss the suitable attitude for religious Jewry and its leaders to hold about the

business of “researching” codes hidden in the Torah in light of the severe criticism of the research’s scientific value by scientists themselves.]

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