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Threads of Reason
A Collection of Essays on Tekhelet

by Rabbi Mois Navon

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About the Book

This collection of essays is the result of research spanning more than a decade, motivated by nothing more than the desire to reach a clear understanding of the issues surrounding the rediscovery of tekhelet through the Murex trunculus. Is it possible to renew a biblical commandment without a mesorah (tradition)? Must religious objects, like tzitzit, be made from kosher substances? Does one violate the melakhah (Shabbat labor) of trapping when obtaining a snail on Shabbat? Bringing together biology and halakhah, chemistry and aggadah, archeology and theology – and applying careful consideration and logical reason – these essays seek to address the numerous questions that arise in the endeavor to revive this unique commandment. And as tekhelet is a commandment that has been forgotten for over 1300 years, each essay is colored with the marvel of a lost biblical commandment returned anew to the Jewish people. This collection of essays, then, can be seen as a group of threads – threads of reason – spun into a cord strong enough to bind a new generation in the fulfillment of an ancient commandment.
The *Hillazon* and the Principle of “Muttar be-Fikha”*  

Abstract  

Following the vast amount of evidence supporting the identification of the *Murex trunculus* snail as the *hillazon shel tekhelet,*1 the question has been raised as to whether a mollusk could be considered the ancient source of *tekhelet,* given that it is not kosher to eat. This question is motivated by the principle that religious articles must be made from sources which are *muttar be-fikha* (literally: permissible in your mouth). In order to address this question, an in-depth analysis of the *muttar be-fikha* principle is necessary to determine the breadth of its application.  

Introduction to *Muttar be-Fikha*  

The source of this principle is introduced in the *gemara* by way of the following *baraita:*  

R. Yosef stated [*baraita*]: For the sacred service (*melekhet shamayim*) none but the skin of a clean (*tabor*) animal is considered fit.  

*Shabbat* 28b  

R. Yosef attempts to apply the *baraita* to the *Mishkan*; however the *gemara* rejects this application. The *gemara* then investigates the application of the *baraita* to *tefillin.*  

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It is explained that the *baraita* cannot be teaching that *tefillin* parchments must be made from a kosher source, since this is learned explicitly from the Torah itself, from the verse, “So that the law of the Lord be in your mouth” (Ex. 13:9). The *gemara* then goes on to explain that the *baraita* cannot be teaching that the boxes, hairs and sinews used for *tefillin* must be made from a kosher source, since this is known from a “halakhab le-Mosheh mi-Sinai.” The *gemara* concludes that R. Yosef’s statement comes to teach that the straps of the *tefillin* must come from a kosher animal. The upshot of the *gemara*’s discussion is that the principle which requires the use of a kosher animal applies to all aspects of *tefillin*—nothing more, nothing less.3

The *mishnah* in Megillah 8b states that there are no differences among *tefillin*, *mezuzah* and sacred scrolls (except that sacred scrolls can be written in other languages).4 As such, the rule of *muttar be-fikha* is broadened to apply not only to *tefillin* but to *mezuzah* and sacred scrolls as well. This is stated explicitly in Masekhet Soferim (1:1): “It is not permitted to write sacred scrolls, *tefillin* or *mezuzot* on skins of tamei [non-kosher] animals nor on skins of tamei beasts; nor may they be sewn with their sinews, nor wound with their hair.”5

At this point, *muttar be-fikha* would seem to apply only to *tefillin*, *mezuzah*, and sacred scrolls.

However, in two places (Kiddushin 35a, Makkot 11a), the *gemara* applies laws that pertain to *tefillin* to the rest of the Torah—“huksbah kol ha-Torah kulah li-tefillin.” The *gemara* in Makkot 11a concludes that the analogy of *tefillin* to the Torah applies only to the requirement that the parchment of a Torah scroll be *muttar be-fikha*. The *gemara* in Kiddushin 35a also applies the principle, yet in a different capacity. There, the *gemara* applies the rule concerning *tefillin*, that women are exempt from time bound positive *mizvot* (*mizvot asah she-ba-zeman gerama*), to all *mizvot*. Based on this latter *gemara*, Magen Avraham6 (Orah Hayyim 586:3) writes that the law of *tefillin* which enjoins the use of a kosher animal is to be applied to all *mizvot*.7

At this point, *muttar be-fikha* is understood to apply to all *mizvot*.

Hence, at the outset it appears that all ritual objects must come from kosher (*tahor*) sources. Since the *Murex trunculus* is not a kosher animal, it would seem to be disqualified as a candidate for the source of *tekhelet*.8
**Definition of Muttar be-Fikha**

The following general principle is found in *Shulhan Arukh*:

The skins for scriptural texts are to be from *tabor* animals, beasts and birds, and even from their *nevelot* and *terefot*; however, they are not to be from *tamei* [i.e., non-kosher] animals, beasts and birds; as it is written, “In order that the law of the Lord be in your mouth” (Ex. 13:9) – from a species that is permissible in your mouth (*muttar be-fikha*).

*Shulhan Arukh, Orará Hayyim* 32:12

It is thus clear that the rule of *muttar be-fikha* requires the use of a kosher (*tabor*) species; nonetheless, some contend that the definition of *muttar be-fikha* should also permit substances derived from non-kosher (*tamei*) sources if they are *afra be-alma* (i.e., mere dust). That is, since mere dust is inedible, it is not considered non-kosher to eat. There are two categories of such substances: things that are inedible from their inception and things that over time, or after processing, become inedible.

**Pirsha be-Alma**

The *mishnah* makes the following generalization: “That which goes forth (*yozé*) from the *tamei* is *tamei*” (Bekhorot 5b). But the *gemara* (Bekhorot 7b) exempts a “mere excretion” (*pirsha be-alma*) from this principle. R. J. David Bleich summarizes as follows:

… a substance is not forbidden as “*yozé*” unless it is edible at the time it is secreted; a secreted substance that is inedible at the time of its secretion, or becomes inedible thereafter, remains permissible even if its nature is such that it will develop naturally into, or be used in conjunction with, a proper foodstuff.9

Based on the principle that an inedible secretion (*pirsha be-alma*) is kosher, it is argued that the rule of *muttar be-fikha* should permit substances which are *pirsha be-alma*. *Ginnat Veradim*10 finds the ruling of Rosh,11 that torn Torah scrolls may be sewn with silk threads, as paradigmatic of this permission. Since Torah scrolls are the primary application of the *muttar be-fikha* law, the permissibility of using silk, which comes from a non-kosher creature, must be explained. *Ginnat Veradim*
argues that silk is actually kosher in that it is merely the inedible tasteless excretion of the worm – *pirsha be-alma*. Furthermore, silk is not similar to sinews, which are explicitly required to be from a kosher species. Sinews are initially edible and, as such, forbidden if from a non-kosher species, whereas silk is a *pirsha be-alma* and never forbidden for consumption.

This argument is rejected by *Shivat Ziyyon* (#3) who explains that *pirsha be-alma* simply cannot be included in the definition of *muttar be-fikha*. He reasons that animal hairs are clearly *pirsha be-alma*, yet the gemara explicitly demands that they be from kosher species. As for the permissibility of silk threads to mend torn scrolls, *Darkhei Noam* (14:1) explains that silk is only permissible in places not fundamentally essential to the scroll and its writing.

*At this point, then, the definition of muttar be-fikha is understood to require a kosher species; and pirsha be-alma is of no consequence.*

**Afra be-Alma Final Product**

The gemara (*Avodah Zarah* 67b) discusses the concept of non-kosher substances that become permitted to eat if they become unfit for human consumption (*nifsal me-akhilat adam*). R. Shimon, whom the normative halakhah follows, rules that something which is *nifsal me-akhilat adam* is permissible since it is no longer considered “food.” The opposing view, held by R. Meir, maintains that only substances which had been inedible from their inception are permitted. R. Yehezkel Landau in his *Noda bi-Yehudah* elaborates, explaining that the gemara (*Bekhorot* 23b) distinguishes between substances that are no longer fit for human consumption and substances that are no longer fit for consumption by a dog (*nifsal me-akhilat kelev*), applying greater leniency to the latter. Based on this, *Noda bi-Yehudah* explains that even according to R. Meir, once a substance has reached the stage of *nifsal me-akhilat kelev*, it is simply *afra be-alma* and permitted. The rule is best summarized as follows:

A substance which has become inedible for a dog (*nifsal me-akhilat kelev*), according to all authorities, no longer retains any prohibition, even if it became inedible only following its being forbidden.

*Kesef Mishnah* (Rambam, *Hilkhot Kelei Mikdash* 1:3) employs this principle to defend Rambam’s permitting use of an apparently non-kosher animal to produce the *mor*
used for the anointing oil and incense in the Temple, since the mor is afra be-alma in its final form. R. S. Landau, writing in his father’s *Noda bi-Yehudah*, takes issue.\(^{17}\) He explains that if it were the final substance that is the object of the muttar be-fikha rule, then the hairs and skins used for tefillin, *Sefer Torah*, and *mezuzah* should not be required to be from a kosher animal; as they too are afra be-alma in their final form. Since they are required to be from a kosher animal, the application of afra be-alma to the final product is an unwarranted exemption from the muttar be-fikha rule.\(^{18}\)

Furthermore, the *gemara* itself states: “Tefillin are to be written only on the skin of a *behemah tehorah* and the skin of *hayyah tehorah*, and upon the skins of their *nevelot* and *terefot*, but not on the skins of a *behemah teme’ah*” (*Shabbat* 108a). Given that the processed skins of non-kosher animals are considered permitted to eat in that they are afra be-alma\(^{19}\), the *gemara*’s ruling that parchment may not come from the skins of a *behemah teme’ah* includes a rejection of the exemption of afra be-alma. Stated in the positive, the law of muttar be-fikha enjoins that even though skins are processed, and as such are really allowed for eating, only skins from a kosher species are permitted.\(^{20}\)

*The definition of muttar be-fikha requires a kosher species; and neither pirsha be-alma nor afra be-alma in final form is of any consequence.*

**Two More Approaches**

**Kosher foodstuff from non-kosher fish**

R. Gershon Hanokh Leiner (the Radzyner Rebbe) also encountered the issue of muttar be-fikha when he proposed his non-kosher cuttlefish (*Sepia officinalis*) as the possible source of tekhelet.\(^{21}\) He asserted that, while the condition of afra be-alma is not sufficient to permit use of a substance from a non-kosher animal, if the substance was kosher (not merely inedible) from its outset, it would be acceptable as muttar be-fikha.\(^{22}\) He then argues that the blood of non-kosher fish is biblically permissible to eat, and as such its dye is muttar be-fikha.

The first postulate, that a kosher substance from any non-kosher creature is acceptable, is dismissed by *Shivat Ziyyon’s* (\#2) explanation that when actual kosher substances are required there is a separate rule to apply – mashkeh Yisrael – which is distinct from the rule of muttar be-fikha. The rule of muttar be-fikha demands a kosher species, period. Furthermore, the second contention, that the blood of
non-kosher sea creatures is biblically permitted, is – by R. Leiner’s own admission – fraught with opposition.\textsuperscript{23}

As another line of defense, the Rebbe proposed that the dyestuff of the \textit{hillazon} was kosher in that it is like a bee’s honey.\textsuperscript{24} Bee’s honey is deemed kosher because it is an exudation of the creature having nothing to do with the actual organism itself (Rambam, \textit{Hilkhot Ma’akhalot Asurot} 3:3). This description is inapplicable to the \textit{Murex trunculus} whose dyestuff is found in its hypobranchial gland, which serves for several indispensable bodily functions.\textsuperscript{25}

\textbf{Human-made changes}

\textit{Hatam Sofer} (1:39), in examining the permission to use silk, offers the possibility that dyed silk is acceptable since a fundamental change is effected by dyeing (as demonstrated by the laws of ownership – wherein dyeing changes an object’s status). However, such a change is not effective in all cases, since wool from sheep which have been worshipped as the object of idolatry is forbidden for ritual use, even after being spun and dyed.\textsuperscript{26} \textit{Hatam Sofer} has a novel response to this case, but it is not the normative understanding. Furthermore, \textit{Noda bi-Yehudah} altogether rejects the notion that any change can make a substance from a non-kosher species admissible as \textit{muttar be-fikha}. He explains that a fundamental transformation is made by animal skins to become parchment, yet the \textit{gemara}\textsuperscript{27} explicitly requires that they come from a kosher species.\textsuperscript{28} Indeed, \textit{Hatam Sofer} himself leaves the issue as one which requires further investigation. In a related responsum on the subject (2:276), written some ten years later, he permits silk only in places where its use is not essential to the \textit{mizvah} object (\textit{eino me’akev}).

Consequently, the argument that the law of \textit{muttar be-fikha} applies to the final product, without concern for the source species, is dismissed. The law of \textit{muttar be-fikha} requires ritual objects to be made from a kosher species, without regard for the permissibility of the final substance.

\textit{The definition of muttar be-fikha requires a kosher species – without exception.}

\textbf{Application of Muttar be-Fikha}

Given the definition of \textit{muttar be-fikha}, one is left in a quandary upon learning that the \textit{gemara} (\textit{Sukkah} 23a) permits, without reservation, the use of a tied elephant as a \textit{sukkah} wall. Based on this \textit{gemara}, \textit{Noda bi-Yehudah}\textsuperscript{29} contests Magen Avraham’s
claim that muttar be-fikha applies to all the mizvot stating: “Behold, an elephant is not muttar be-fikha, yet it is permitted for the performance of a mizvah.”

**Tashmishei Mizvah**

Noda bi-Yehudah brings the shofar as yet another example of a mizvah object which is permissible from a non-kosher animal. He explains that the similarity between shofar and sukkah is that they are both tashmishei mizvah – objects used to perform mizvot, yet do not have inherent kedushah (holiness).

At this point, muttar be-fikha is understood as not applying to tashmishei mizvah.

Though there is support for the idea that a shofar from a non-kosher animal is permissible, there are those who hold that this is simply not so. To maintain the latter opinion, the unique quality of the sukkah, which allows for the use of a non-kosher animal, must be distinguished from the shofar. Har Zevi (Orah Hayyim 1:39) explains that the law of muttar be-fikha applies specifically to mizvot which by definition require the use of materials from animals (ba’alei hayyim). If the mizvah does not, by definition, stipulate such a requirement, such that the ritual object could be produced from vegetable or inanimate substances, then one could even use non-kosher animals. The elephant, therefore, is acceptable despite the fact that it is not kosher, since the mizvah of sukkah does not inherently require an animal source for its fulfillment; a sukkah wall can be made from anything (e.g., metal, wood, stone). In contrast, the shofar must come from an animal; as such, it is argued that it must come from a kosher animal.

At this point, muttar be-fikha is understood to apply to all mizvot that require an animal source.

Tekhelet, by definition must come from an animal source, as the Tosefta (Menahot 9:6) states: “Tekhelet is valid only from the hillazon; if tekhelet was produced from other than the hillazon, it is invalid.” According to this last definition of the application of the muttar be-fikha rule, the hillazon must be a kosher animal.

But this last definition is undermined by the example of silk zizit brought by Peri Megadim and Hatam Sofer. Shulhan Arukh (Orah Hayyim 9:3), as per the gemara (Menahot 39b), legislates that “zizit of materials [other than wool or linen] fulfill the mizvah of garments made of that same material, such as silk [zizit] for a silk garment…” Given that silk is the product of a non-kosher creature (i.e., a worm),
this is a miẓvaḥ which by definition requires the use of an animal, yet its species is non-kosher. As such, muttar be-fikha cannot apply to all miẓvoth that inherently require an animal source. Given that ẓiẓit are a tashmish miẓvaḥ, the definition of muttar be-fikha reverts to being inapplicable to tashmishei miẓvaḥ.

In response to the silk ẓiẓit example, one could argue that since the miẓvaḥ of ẓiẓit can be fulfilled using materials that are not of animal or food sources (e.g., linen), ẓiẓit are not, in an absolute sense, required to be from a kosher animal source. Consequently, the example of silk ẓiẓit reduces the scope of Magen Avraham’s statement, but it may not necessarily exempt all tashmishei miẓvaḥ from muttar be-fikha.

At this point, it is instructive to revisit the shofar example. Rama (Orah Hayyim 586:1), based on Ran, prohibits the use of a non-kosher animal for a shofar. Ran reasons that a shofar cannot be of a non-kosher animal because the shofar is considered to be akin to God’s inner chamber (“ke-lifnim dami”). Thus, the demand that the shofar be from a kosher animal does not ensue from the application of muttar be-fikha to all miẓvoth. Rather, it stems from the unique significance of the shofar. With this understanding, the shofar proves that muttar be-fikha cannot apply to all miẓvoth that inherently require an animal source. Given that a shofar is a tashmish miẓvaḥ, the definition of muttar be-fikha reverts to being inapplicable to tashmishei miẓvaḥ.

There is, however, a miẓvaḥ which seems to limit the generalization that muttar be-fikha is inapplicable to all tashmishei miẓvaḥ: baliẓah – which some claim requires the use of a leather shoe. Though the Ba’alei ha-Tosafot (Yevamot 102b, s.v. ve-analekha) hold that the leather need not be of a kosher animal, Rabbeinu Tam (ibid.) does require the shoe to be from the skin of a kosher animal. His reason, however, is based on the verse, “And I placed on you a shoe of tabasb [a kosher animal]...” (Ezek. 16:10). Thus, even according to Rabbenu Tam, the requirement of kosher leather is not due to the application of muttar be-fikha, but because of a specific inference from Scripture. Thus the definition, that muttar be-fikha is inapplicable to tashmishei miẓvaḥ, still holds.

At this point, muttar be-fikha is understood as not applying to tashmishei miẓvaḥ.

Applying this new definition of muttar be-fikha to the case under discussion, tekhelet as used in ẓiẓit is perfectly acceptable from a non-kosher animal since ẓiẓit is a
tashmish mitzvah. However, tekhelet is also prescribed for use in the Mikdash wherein everything is considered tashmish kedushah. Given that there is no reason to believe that the tekhelet for zizit is of a different origin than the tekhelet of the Mikdash, the question of muttar be-fikha must be understood in relation to tashmishei kedushah — ritual objects which have kedushah (holiness).

**Tashmishei Kedushah**

R. Beḥayyei (Ex. 25:3) infers that since silk is not used in the Mishkan, all the appurtenances of the Mishkan must be muttar be-fikha. Torah Temimah (Ex. 25:4, n.4) does not find R. Beḥayyei’s inference valid. Rather, he explains that one cannot infer anything from the fact that silk was not used in the Mishkan, since everything was a matter of “ha-dibbur ve-bora’at ba-sha’ab” (immediate circumstances). It is worth noting that silk was not available outside of China at the time of the Exodus (circa 1300 B.C.E.). For though the Chinese are known to have used silk since the third millennium B.C.E., Aristotle (384-322 B.C.E.) is the first Westerner to mention silkworms. Indeed the “Silk Road,” carrying silk from China to India, did not come into existence until 300 B.C.E., and did not connect to the West until 200 B.C.E. Of course, a miracle could have been wrought to provide silk, but concluding that silk is forbidden based on the absence of a miracle seems excessive.

Returning to the gemara (Shabbat 28a) wherein R. Yosef’s original statement is made, the gemara attempts to deduce which objects are susceptible to ritual defilement of a tent (tum’at ohel) through formal comparison (gezerah shavah) with the Mishkan — the paradigmatic tent (ohel). The gemara reasons that since all the coverings used in the Mishkan are in some way referred to as “ohel,” any of the materials used in those coverings are susceptible to tum’at ohel. In trying to determine whether skins of non-kosher animals acquire tum’at ohel, R. Elazar inquires as to the origin of the tabash skins used in the Mishkan (i.e., were they from a non-kosher animal?). The gemara goes on to prove that the susceptibility of non-kosher skins to tum'ab is not determined by their inclusion in, or exclusion from, the Mishkan. Rather, the ruling is deduced by an a fortiori inference (kal va-homer) from goatskins. After dismissing the use of the tabash skins in the gezerah shavah, the gemara teaches that the various components of tefillin must be of kosher animal material. The gemara then goes on to conclude that the tabash was a kosher species.
Rashba quotes R. Hai Gaon who derives from this gemara the scope of muttar be-fikha. He explains that just as the gemara derived, by formally comparing a “Mishkan tent” to a “corpse tent” (gezerah shavah obel Mishkan obel met), which materials are susceptible to tum’at obel from the materials used in the Mishkan (i.e., wool and linen), so too the reverse comparison can be applied. That is to say, those materials that are susceptible to tum’at obel are acceptable for use in the Mishkan. Given that non-kosher animal skins are susceptible to tum’at obel, non-kosher animal skins must also be acceptable for use in the Mishkan. Therefore, concludes R. Hai Gaon, the requirement to use a kosher animal applies not to the Mishkan, but only to tefillin.

As explained above, there are no differences among tefillin, mezuzah and sacred scrolls, so muttar be-fikha applies equally to all of these objects. Another mizvah object similar to these – in that it is writing on parchment – is megillat sotah (the scroll of curses written in the case of an unfaithful woman [Num. 5:23]). Sedei Hemed, in analyzing the mizvah of Sotah, concludes that megillat sotah requires kosher parchment specifically because it has “writing.” As such, the application of muttar be-fikha is broadened to include all mizvot which entail writing.

*At this point, then, muttar be-fikha is understood to apply to mizvot with writing.*

This definition is called into question by the mizvah of get. The get is a mizvah object composed of writing; however, the mishnah itself permits a get to be written on anything (Gittin 19a). Sedei Hemed quotes Bikkurei Shelomoh, who explains that a get does not require muttar be-fikha because the mizvah does not inherently require an animal source. Thus, he would refine our application of muttar be-fikha to mizvot with writing which also require animal sources.

*At this point, muttar be-fikha is understood to apply to mizvot involving writing that inherently require an animal source.*

This last definition is a refinement based on R. Hai Gaon’s conclusion that muttar be-fikha applies to tefillin and not the Mishkan. However, Noda bi-Yehudah rejects R. Hai Gaon’s application of the gezerah shavah (learning obel Mishkan from obel met). He reasons that the gemara questioned whether the susceptibility of a non-kosher animal to tum’ab could be learned from the example of the tahash in the Mishkan, since the tahash is not necessarily considered the actual Mishkan (but rather a functional covering). As such, the gezerah shavah does not apply, since the tahash
was not formally part of the Mishkan “tent.” Furthermore, since the gemara concludes that the tahash was indeed kosher, the gezerah shavah, maintains Noda bi-Yehudah, is simply inapplicable.

This rejection of R. Hai Gaon’s position by Noda bi-Yehudah is weak for two reasons: 1) though the gemara was initially in doubt whether the tahash was part of the Mishkan, it concludes that the tahash was indeed considered part of the Mishkan (mah tahton karui obel, af elyon karui obel); 2) the fact that the gemara concludes that the tahash was kosher, does not break the gezerah shavah between obel met and obel Mishkan. Indeed, following the gemara’s discussion of whether a non-kosher animal skin contracts tum’ah, the question is raised: “And what about the status of the tahash?” This question clearly implies that non-kosher skins were permitted in the Mishkan. Be that as it may, we will continue with Noda bi-Yehudah’s discussion since it is the more stringent approach.

After much deliberation, Noda bi-Yehudah explains that though he had propounded that the reason muttar be-fikha applied to tefillin straps was their being connected to sacred writing, there is room to disagree with his reasoning. For one may claim that muttar be-fikha applies to tefillin straps because they are tashmishei kedushah (as explained by Tosafot Menahot 35b, s.v. elu tefillin). As such, the definition of muttar be-fikha again applies to tashmishei kedushah.

At this point, muttar be-fikha is understood to apply to all tashmishei kedushah.

Nevertheless, one who accepts this definition is confronted with the three dyes used in the Mishkan: tekhelet, argaman, and tola’at shani. Noda bi-Yehudah expresses uncertainty as to whether the sources of these dyes were kosher. He posits that, assuming the dyes were from non-kosher creatures, muttar be-fikha has a new condition: “everything that is for appearances has no requirement of muttar be-fikha.” At this point, an investigation of the sources of these dyes is essential.

**Dyes in the Mikdash**

**Tola’at Shani**

Rambam (Hilkhhot Parah Adumah 3:2) explains that the tola’at shani (crimson) dye comes from a “gargir,” a grain-like object, within which lives a tola’at (insect). R. Behayyei (Ex. 25:3) interprets Rambam’s description to the effect that the dye is from a kosher source (i.e., the gargir) and not the actual insect. This explanation is difficult for the following reasons.
First, it comes in stark contradiction to the statement of the Yerushalmi: “Just as tola’at shani is something that has the spirit of life in it, so too everything [i.e., tekbelet, argaman] has the spirit of life in it” (Ki’layim 9:1). This clearly implies that the tola’at shani dye comes from a living tola’at. The Tosefta (Menahot 9:6) corroborates: “Sheni tola’at is from the tola’ab in the hills; if it is not made from the tola’ab in the hills, it is invalid.” Similarly states the Sifra: “Sheni tola’at, the color that is in the tola’at.” So too the Sifrei: “The color is from the tola’at, and not from anything else.” Accordingly, Torah Temimah quotes Rambam (i.e., that the dye is from the “gargir”) and says in amazement: “I have not found any source for this idea, and behold it is stated explicitly that the tola’at is an actual living insect!”

Second, it is well known that the ancients used crimson dye from an insect known as the Coccus (kermes) ilicis which lives on the red oak tree (Quercus coccifera) and holly oak (Quercus ilex). Archeological evidence indicates that it is the oldest red dye, used by the Egyptians and Phoenicians. The Septuagint (Ex. 25:4-7, 26:1) translates tola’at shani as “kokkinon” – the Greek word used to refer to kermes dye, and Pliny refers to its widespread use. R. Sa’adyah Gaon (Ex. 25:4) agrees, explaining the words tola’at shani as “the color kermes.”

As for the “gargir” in which the insect is found, this may refer to either the egg or cocoon, in which the insect grows – both of which also contain the dye. If so, Rambam is not implying that the dye must come from a kosher source; rather, he is merely explaining a specific instance of where the dye – from its non-kosher source – is found.

The fact that the tola’at shani dye came from an insect has been recognized by posekim and applied halakhically. Hatam Sofer (Responsa 2:276) states that “the crimson dye of tola’at shani is wool dyed from insect extract.” Similarly, Minhag Yizbak (3:#96) writes, “as I have seen in one of the writings of the soferim ha-baredim, the dye was produced from the tola’at.”

**Argaman**

R. Isaac Herzog, as part of his doctoral thesis Hebrew Porphyrology, discusses the source of the argaman dyestuff. He explains that the Septuagint translates every instance of the word argaman as porphyra (or a derivative thereof). Porphyra is the Greek name used to refer to the snails used for Tyrian Purple – the purple dye made famous by the Phoenicians and later monopolized by the Romans. R. Herzog brings evidence from the writings of Philo and Josephus, both of whom
expressly state that the Temple’s *argaman* dye was of sea-snail origin.\(^{77}\) This is most convincing testimony, given that both Philo and Josephus lived during the Second Temple period; moreover, Josephus himself officiated in the Temple.

R. Herzog then goes on to explain the reason for the lack of a formal declaration in Judaic literature to specify the source of *argaman*:

There was no necessity for formulating a law in rejection of non-conchylian dyestuffs for *argaman*, simply because the word *argaman* itself denoted nothing but purple dye or purple stuff, being the equivalent of the Greek or Latin *purpura*. *argaman* also designated the species of sea-snail productive of the dye which, when applied to clothing gave to the latter the name *argaman*. To have said that the stuff dyed with the vegetable pigment is not *argaman*, however close its color to the latter might be, would have been like saying, for instance, that counterfeit gold might not do when the Law required gold.\(^{78}\)

The point is that the very name *argaman* indicates the sea-snail source which produces purple dye, just as the name “gold” indicates that well-known precious metal.

**Tekhelet**

The intention of this essay has been to ascertain whether *tekhelet* dye could halakhically come from a non-kosher source. The most direct method to establish the validity of such a claim is to demonstrate that the very creature mandated is nothing other than a non-kosher animal.

The *gemara* describes the nature of the *hillazon* stating: “its creation (beri’ato) is similar to that of a fish” (Menahot 44b). This identification is no more precise than saying that the *hillazon* lives in the sea.\(^{79}\) Indeed, Shemuel ben Hofni Gaon, in chapter 9 of his “Book of the Laws of *Zizit*” writes that *tekhelet* “is dyed with the blood of a sea creature.” Rambam (*Hilkhot Zizit* 2:2) states that the *hillazon* is simply “a fish” (i.e., not “similar to a fish”). One may therefore conclude only that the *hillazon* is a sea creature, but not necessarily a kosher fish. For as R. Herzog explains, Rambam distinguishes only between fish and *sherazei ba-mayim*, and as such he would include Gastropods (of which snails are a member) in his categorization of “fish.”
The Midrash describes the hillazon as follows, “Go and learn [about the clothes of the Jews in the desert] from the hillazon, all the time that it grows, its shell (nartiko) grows with it” (Shir ha-Shirim Rabbah 4:11). The gemara states, “One who traps and breaks open (pozea) a hillazon...” (Shabbat 75a). R. Herzog explains that the verb pozea means “break open” – that is, something hard, like a nut. These sources indicate that the hillazon is a hard-shelled creature. Given that the only kosher sea creatures are those with fins and scales, which excludes all hard-shelled crustaceans, the hillazon, as described by the Midrash and gemara, cannot be a kosher fish.

Finally, there is the statement of Ravya (Berakhot 9:25) who quotes the Yerushalmi identifying tekhelet with the Greek word porphyra. Again, porphyra is the Greek word used to refer to snails, more specifically the Murex snails, which have been shown to produce both purple (argaman) and blue (tekhelet), depending on processing.

Given the overwhelming evidence in support of the fact that non-kosher species were used as the dye sources of the Mikdash, Noda bi-Yehudah’s uncertainty as to the dye origins is removed. Consequently, his hypothesis that “appearances don’t count,” is affirmed. Indeed, Hatam Sofer maintains that the dyes are obtained from non-kosher substances and thus concludes that “coloring is of no consequence.” R. Elyashiv is more conservative, explaining that though tekhelet is acceptable from a non-kosher animal, it is so by definition, and one cannot extrapolate from this to general halakhah.

At this point, muttar be-fikha is understood to apply to all tashmishei kedushah with the exception of dyes – at least for the Mikdash.

Conclusion

In conclusion, we have seen the spectrum of opinions regarding the definition and application of the principle muttar be-fikha. It has been demonstrated that this principle, by definition, requires that the raw material for ritual objects come from kosher species without exception. It has been shown decisively that muttar be-fikha cannot be applied to all the mizvot; for any one of the counter-examples (sukkah, using an elephant; shofar, from tamei; zigiz, from silk) is alone adequate to dislodge the broad application of muttar be-fikha as initially understood by Magen Avraham. Indeed, Peri Megadim explains that the bekeshe (inference) of Magen Avraham is not a
bekesh gamur (inference without exceptions). Through the examples, we learned that muttar be-fikha is simply not applicable to tashmishei mizvah. And following the analysis which established the hillaazon as a non-kosher animal, we can now add zizit of tekhelet to the list of mizvot which inherently require a non-kosher animal foodstuff for its fulfillment.

R. Hai Gaon’s analysis brought by Rashba indicated that muttar be-fikha is in fact very limited in scope, applying only to tefillin – and by extension, to sacred writings. By distinguishing the requirements of a gittin, we further refined the application of muttar be-fikha to objects with writing that require animal material as their substrate by definition. R. Hai Gaon’s understanding was called into question by Noda bi-Yehudah, so we returned to the notion that the principle of muttar be-fikha applies to all tashmishei kedushah. Nevertheless, even allowing for this broader approach to muttar be-fikha, it was demonstrated that muttar be-fikha simply cannot apply to the dyes used in the tashmishei kedushah of the Mikdash – either because “appearances don’t count” or simply by way of specific dispensation.

With this deeper understanding of the parameters pertaining to the principle of muttar be-fikha, another obstacle has been removed from the path to accepting the Murex trunculus snail as the hillaazon shel tekhelet. May yet more Jews find in this the power to fulfill the mizvah of zizit bi-shelemutah (in its full definition), and thus merit God’s very presence, as it says: “He who is careful in the mizvah of zizit merits to receive the face of the Shekhinah” (Menahot 43b).
Mutar be-Fikha

~ Notes ~


2 The statement is part of a verse describing tefillin. The Talmud interprets the words “in your mouth” as “permissible in your mouth” (muttar be-fikha), meaning that the parchments must be muttar be-fikha.

3 The principle is interchangeably referred to as muttar be-fikha or a variation of lo hukhshar li-melekhet Shamayim ela davar tahor. (For example, see: R. Behayyi, Ex. 25:3); R. S. Landau, Responsa Noda bi-Yehudah, Mahadura Tanina, Orar Hayyim, 3; R. S. Landau, Haggahot to Doresh LaZiyon, ch. 11; Responsa Torat Hesed (Orar Hayyim, 60:3).

4 The statement of the mishnah is made with regard to parchments, the gemara (Megillah 8b) then infers the rule to apply to the stitching as well.

5 See also Beit Yosef, Yoreh De’ah, 271:1. See note 8 below for an explanation of why the terms tamei and tabor should be translated as “kosher” and “non-kosher.”

6 Responsa Sedei Hemed (Asefit Dinim, Ma’arekhet Hanukkah, 14) explains that the opinion of Magen Avraham is also held by Eliyahu Rabbah, Semag, Mikra’ei Kodesh, Birkei Yosef, and Batei Keneiyyot.

7 See Peri Magdim: Eshel Avraham (Orar Hayyim, 586:3). (See also Mahazit ha-Shekel 586:3 for an alternate explanation of Magen Avraham).

8 For the sake of clarification, it is instructive to prove the following argument fallacious: Given that (a) the hillazon is a sea creature and (b) the mishnah (Kelim 17:13) states, “everything in the sea is tabor, except for the seal,” the hillazon satisfies the requirement of being tabor. This argument is untenable for the simple reason that the gemara’s requirement that a ritual object be of a tabor substance means “kosher” (i.e., halakhically permissible for consumption). The usage of the terms tabor and tamei to refer to kosher and non-kosher animals is taken from the Torah when it refers to beheimot teme’ot, meaning animals non-kosher to eat (Lev. 7:21, 20:25, 27:11, 27:27; Num. 18:15). Though the Torah itself does not employ the terms “dag tabor” and “dag tamei,” the gemara (Hullin 66b, Niddah 51b; also
Thread 108a, Bava Mezia 61b, Avodah Zarah 40a, Hullin 67b, Hullin 113a, Bekhorot 7b) uses the terms extensively to distinguish between sea creatures that have the signs of fins-and-scales and those that do not. Since the bilalazon does not have fins and scales, it is non-kosher (i.e., not permitted for consumption) — and in the words of Hazak tamei. The intent of the mishnah (Kelim 17:13) is not that all sea creatures are kosher, but that vessels made of the skins or bones of sea creatures do not receive tum'ah (are not mekabbel tum'ah) (Kehati, ad loc.).


10 Orah Hayyim, 2:16, s.v. akh mab.

11 “Silk is acceptable to sew tears in scrolls” (Rosh, Teshuvot, Kelal 3).

12 Shabbat 28b.

13 So too Responsa Hatam Sofer (2:276, s.v. ve-baynu tama).

14 Noda bi-Yehudah, Mahadura Kamma, Yoreh De'ah, 26.


16 Rambam explained that the mor spice was obtained from an Indian animal which is used the world over for perfume. The animal referred to is held to be the Musk Deer (Moschus Moschiferus), used ubiquitously for its powerful scent (see Encyclopedia Britannica, s.v. “Musk”). According to Noda bi-Yehudah, Ravad (Hassagot, Hilkhot Kelei Mikdash 1:3) was of the opinion that Rambam was referring to a non-kosher animal, and thus questioned the acceptability of using a non-kosher animal in the Temple service. (See note 18 for a discussion of the alternate interpretations of Ravad).

As an aside, the Musk Deer is known to be kosher and would thus conform to the requirement of muttar be-fikha (See R. Kapah, Perush ha-Mishnah, Kereitot 1:1).

17 Mahadura Tanina (Orah Hayyim, 3), s.v. od re’ayah.

18 Hatam Sofer (1:39, s.v. le-zeh) finds Ravad’s point about the mor not to be concerned with muttar be-fikha at all. According to Hatam Sofer, it is obvious that muttar be-fikha requires a kosher species, and as such, the blood of a kosher species (though not kosher to eat) would be acceptable. Rather, through an exacting analysis of Ravad’s words, Hatam Sofer explains that Ravad’s point pertains to mashkeh Yisrael. The rule of mashkeh Yisrael, which applies to korbanot (such as the incense), specifies that a substance actually be kosher to eat, though not necessarily from a kosher species.

R. Elyashiv explains that: “Ravad was not arguing against Rambam based on either muttar be-fikha or mashkeh Yisrael but simply on sevarah… And to this, Kesef Mishneh responded that since the mor became afra be-alma there can be no reason to prohibit its use. Accordingly,
the words of Kesef Mishneh do not disagree with the understanding of Noda bi-Yehudah that there is no difference in the law of muttar be-fikha whether the object changed or not” (“Ha-Ya‘ei min ha-Tamei bi-Teﬁlin u-bi-Tekhelet,” Zohar, helek 3, 51, s.v. re-omnam [ed. R. E. Devorkas, 5758]).

In any case, whether the issue of Ravad is over muttar be-fikha (as per Noda bi-Yehudah) or over mashkei Yisrael (as per Hatam Sofer) or over sevarah (as per R. Elyashiv), all agree that the demands of muttar be-fikha are not mitigated by a substance becoming afra be-alma in its final form.

19 Mahadura Tanina (Orah Hayyim, 3), s.v. ad re’ayah.

20 Yerushalmi Megillah (1:9, 12a); Tosafot (Shabbat 108a, s.v. eizel); Shirat Ziyyon (#2, s.v. re-ein lomar); Hatam Sofer (1:39, s.v. le-zeh yesh). See also Ginnat Veradim (Orah Hayyim, 2:16).

21 “Petil Tekhelet,” in Sifrei ha-Tekhelet Radzyn (Benei Berak: Mishor, 1990), ot 5, 51.

22 See note 45 for an explanation of why the Rebbe felt compelled to argue as such.


24 Ibid., ot 9, 348.


27 Shabbat 108a.

28 Mahadura Tanina (Orah Hayyim, 3), s.v. amar Shemuel.

29 Ibid., s.v. omnam yesh li-deḥot.

30 Ibid.

31 “These are tashmishei miqvaḥ: sukkah, lulav, shofar, qigil” (Megillah 26b).

32 Responsa Olat Shabbat (Orah Hayyim 586:1). See further, note 41.

33 Rama (Orah Hayyim 586:1). Magen Avraham (Orah Hayyim 586:3).

34 So too Torah Temimah (Ex. 13:9, n.47; Ex. 25:4, n.4). R. G. H. Leiner similarly explained that muttar be-fikha applies only to objects that inherently are required to be from a food source (“Petil Tekhelet,” ot 5, 51, s.v. u-mahar she-nityashev); “Ein HaTekhelet,” ot 11, 250, s.v. u-ke-fi mah). Similarly, Torat Hesed (Orah Hayyim, 60:3), though he disagrees with Magen Avraham in general, tries to explain how, according to Magen Avraham, a sukkah can be made from an elephant.
Though there are some few who hold that tekhelet may come from sources other than the hillumzon, the overwhelming majority opinion is that it must come from the hillumzon. See R. Bezalel Naor “Substituting Synthetic Dye for the Hilazon,” Journal of Halacha and Contemporary Society, 24 (1992), 97-107; R. Yehuda Rock, “Renewal of Tekhelet…,” online expanded version, 12-13; R. Menahem Burstein, Ha-Tekhelet, 25-27.

Mishbezot Zabav 32:28.

1:39, s.v. ve-ba lo kashyab.

A mizvah de-oraita according to those who rule according to the opinion of Rabbah in Menahot 39b (e.g., Rama, Orah Hayyim 9:1). Even according to those who hold that the mizvah is de-rabbanan, its parameters must be seen as being shaped by de-oraita principles, since de-rabbanan mizvot based on de-oraita mizvot “ke-ein de-oraita tikkun” – the rabbis defined mizvot like de-oraita mizvot (Gittin 65a).

Though the garment can use wool or linen zicit, this is a special dispensation. The specific ruling that silk zicit fulfills the mizvah for a silk garment is a unanimously held decision in the gemara, regardless of whether one holds that a silk garment is de-oraita or de-rabbanan (Mishnah Berurah, 9:3:9).

Rosh ha-Shanah, Rosh Perek Ra’uhu Bet Din 212b.

“The words of Olat Shabbat are correct to allow a shofar from a non-kosher animal, … and from the words of Ran, in the case of the shofar, there is room to be strict since it is likened to God’s inner chamber” (Shivat Ziyyon, #2, s.v. gam yafeh).

“From the words of Ran, only divrei kedushah … but not other mizvot [require muttar be-fikha]… for if the shofar were not likened to God’s inner chamber, he would have no doubts [that it could be of non-kosher material]” (Hatam Sofer, 1:39, s.v. ve-ba lo kashyab).

“Rama [who stated (Orah Hayyim 586:1) that a shofar from a tamei animal is invalid], himself writes in his Darkhei Mosheh that ‘it is good to be strict [and use a tahor animal].’ Obviously this [ruling to use a kosher animal for a shofar] is not based on the law but is merely a stricture (hunrab be-alma)” (Sedei Hemed, Aseifat Dinim, Ma’arekhet Hanukkah, 14, 215, s.v. ve-im).

See also Torat Hesed (Orah Hayyim, 60:4, s.v. ve-yesh litmoah), Sha’ar ha-Ziyyun (Orah Hayyim, 586:1:14), Responsa Avnei Nezer (Orah Hayyim, 15, ot 9).

See Enziklopediyah Talmudit (vol. 15, 722) for a discussion of the mahaloket tannaim over whether leather is required.

See Enziklopediyah Talmudit (vol. 15, 726).

On a historical note, the Radzyner Rebbe did not adopt the opinion that muttar be-fikha was inapplicable to ziqit. He held that just as the shofar is accorded a special status, in that it is likened to God’s inner chamber, so too tekhelet should be accorded the same status, in that it is likened to God’s throne (“Ein Ha-Tekhelet,” at 9, 248). Nevertheless, even by according special status to tekhelet, one must say that just as the shofar could be (me-ikkar ba-din) from a non-kosher animal, so too could tekhelet. The Rebbe was not of this opinion and so felt compelled to develop the unconventional interpretation that the blood of non-kosher fish satisfied the requirements of muttar be-fikha. He proposed primarily two possible means to accept the dye as kosher: either because the blood of non-kosher fish is biblically permitted (“Ein Ha-Tekhelet,” at 16, 267) or because the dyestuff is like bee’s honey (Ibid., at 9, 348). Both of these solutions are problematic, as was previously discussed.

Tekhelet, as it is related to the Mishkan, appears in the Torah as: donations (Ex. 25:4; 35:6, 23, 25); yeriot (26:1); luliot (26:4; 36:11); parokhet (26:31; 36:35); masakh petah ha-ohel (26:36; 36:37); masakh sha’ar be-hagzer (27:16; 38:18); efod (28:6, 8; 39:3, 5); loshen (28:15; 39:8); loshen to efod petil (28:28; 39:21); me’il (28:31, 33; 39:22, 24); avnet (39:29); ziq petil (28:37; 39:31); clothing (39:1); travel covers (Num. 4:6, 7, 9, 11, 12).

Though some exempt tekhelet in the Mikdash from the requirement to be of hillazon origin (R. Tuckachinsky, Ir Ha-Kodesh ve-ha-Mikdash; Arnei Nezer, Orah Hayim 16:8-9), Mishneh le-Melekh states explicitly that, according to Rambam (Hilkhot Kelei Mikdash 8:13), the requirement for tekhelet from the hillazon applies equally to both ziqit and the Temple. Similarly, R. Herzog maintains that there is not the “flimsiest ground for drawing a distinction” between tekhelet in ziqit and tekhelet in the Temple. He explains that the Talmud, in various places, discusses the tekhelet of ziqit and that of the Mishkan together and without distinction (“Hebrew Porphyrology,” in The Royal Purple and the Biblical Blue, p. 55).

“These are tashmishei kedushah: sacks for keeping scrolls of Scripture, tefillin, mezuzot, a mantle for a Sefer Torah, a tefillin bag and tefillin straps” (Megillah 26b).


Encyclopedia Britannica, s.v. “Roads and Highways”; see also s.v. “Silk.”

Gezerah Shavah “obel [Mishkan] [to] obel [mel].”

The reasoning being that if the tahash is a non-kosher animal, then given that its skins were used in the Mishkan (the definitive obel), non-kosher animal skins similarly acquire tum’at obel
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(determined via the gezerah shavah which indicates that what applies to the Mishkan applies to the corpse tent).

54 *Hiddushei ba-Rashba*, Shabbat 28, s.v. ela ha de-tani.

55 From the *kal va-homer* of R. Huna mi-Barnish (*Shabbat* 28a-b).

56 *Hatam Sofer* agrees with R. Hai Gaon’s analysis (1:39, s.v. ve-ulai).

57 *Aseifat Dinim, Ma’arekhet Hanukkah*, 14: 212, 215.

58 *Sedei Hemed* (*Aseifat Dinim, Ma’arekhet Hanukkah*, 14, 206-207) explains that Rashash, Ritva, and Besamim Rash also hold that muttar be-fikha applies only to things with writing – Torah azmah.

59 And so follows the halakhah (*Enziklopedyah Talmudit*, vol. 5, 586). *Sedei Hemed* (*Aseifat Dinim, Ma’arekhet Hanukkah*, 14: 213, s.v. be’ot dalet) cites Beit Yizhak, who uses the *miyav* of get to prove that muttar be-fikha does not apply to all *miyav*.

60 *Aseifat Dinim, Ma’arekhet Hanukkah*, 14, 216, s.v. ve-al ha-re’ayah.

61 *Mahadura Tanina* (*Orah Hayyim*, 3), s.v. ve-gam yesh lomar.

62 See *Hatam Sofer* (1:39, s.v. ve-ulai).

63 See *Torat Hesed, Orah Hayyim*, 60:4.

64 *Mahadura Tanina* (*Orah Hayyim*, 3), s.v. u-bar min dein.

65 He then quotes *Maganei Shelomoh*, who explains that the reason the status of the *tabash* was questioned by the gemara (*mah havi alah de-tabash*) is that it was unclear whether these skins are considered *tashmish kedushah* (part of the Mishkan and as such would have to be kosher) or *tashmish miyav* (not part of the Mishkan proper, but simply protect the Mishkan from the rain).

66 Similarly Rashi on Is. 1:18.

67 The first half of the statement is unequivocal that *tola’at shani* comes from a living creature. The second half of the statement *af kol davar she-yesh bo ruah hayyim* is ambiguous; the translation provided is interpretive based on the commentary of Elijah of Fulda. For a discussion of the interpretation of the second half of the Yerushalmi see R. M. Margoliot (*Penei Mosheh* and *Mar’eh Panim*), loc. cit. Also R. Herzog, “Ha-Tekhelet be-Yisrael,” (printed in R. Burstein, *Ha-Tekhelet*), 382. *Sedei Hemed* (*Aseifat Dinim, Ma’arekhet Hanukkah*, 14, p. 203, s.v. ben emet).

68 *Sifra Megora*, parashah aleph, s.v. Torat ba-Megora.

69 *Sifrei Be-Midbar*, piska 124, s.v. Ezov ve-lo.
Torah Temimah (Ex. 25:4, n.4) does try to justify Rambam, explaining that one could interpret tola'at to mean the grain in which the insect is found. Nevertheless this is clearly a forced interpretation, inconsistent with the Yerushalmi (as well as with scientific evidence). Indeed, Sedei Hemed quotes the interpretation and states, “and this is a forced (dibak) interpretation of the language of the Yerushalmi” (Aseifat Dinim, Ma’arekhet Hanukkah, 14, 203, s.v. ben emet).


“Kermes dye is obtained from the female Kermococcus vermilis which lives in the Quercus cocifera oaks found in the Mediterranean and Near East. Northern Israel harbours two of the species – K. biblicus which lives on a Qu. Calliprinos subspecies and K. spatulatus which lives on Qu. Ithaburenisis – which were probably exploited in biblical times also” (I. Ziderman, “Biblical Dyes of Animal Origin,” Chemistry in Britain 22, 5 [1986]: 419-22). Though there is some question as to which particular species was used for tola'at shani – there is no doubt that the source of the ancient crimson dye was from an insect – i.e., non-kosher.


Ibid.


R. Aryeh Kaplan writes, “From the context and from what is known of the dye, however, it appears that the ‘pods’ [gargir] are the mature insects, and the ‘worms’ [tola’at] are the eggs found inside. Crimson is obtained by crushing the eggs in mature female insects” (Me-am Lo’ez, Exodus VI, 358, n. 37). Also R. Eliyahu Tavger, “Ma’amor ha-Tekhelet,” Klil Tekhelet (Jerusalem: 1993), 327. See also R. M. A. Kaz, “Kiyyum Migvat Tekhelet be-Zigit be-Yameinu,” Korez Or Yisrael, Gillayyon 10, n. 66.


78 Ibid., 56.

79 R. Rock (15, n.57) explains that the “similarity” between the hillazon and fish is simply that they occupy the same habitat – the sea. He arrives at this conclusion by noting that this description (i.e., “similar to fish”) is one of several in the baraita which concludes “consequently the dye is expensive.” He reasons that all the preceding descriptions come to account for the expense. Living with fish (i.e., in the ocean) makes the hillazon difficult to obtain. This characteristic thus serves, along with the others listed, to justify the conclusion that its dye is expensive. See also R. Herzog, “Hebrew Porphyrology,” 68, who explains that “from the sporadic allusion to the nature and characteristics of fishes” in the gemara, no precise taxonomy can be inferred.


81 Pesikta de-Rav Kehana, ch.11; Midrash Tebillim, Mizmor 23. The hillazon of the midrash is the hillazon shel tekhelet (Ba’al Musaf be-Arukh, hillazon ‘d’).


83 A variant midrash (Devarim Rabbah 7:11) states, “… all the time it grows, its clothing (malbusho) grows with it.” Though the gemara (Niddah 51b) refers to the scales (kaskeset) of a fish as its “clothing” (levush), the gemara’s (Shabbat 75a) use of the verb po’ezia (break open) does not easily apply to the cutting opening of a scaly fish. Indeed the gemara (Hullin 21a) uses the term “tear” to refer to the opening of a fish. (See R. Chaim Twerski, “Identifying the Chilazon,” Journal of Halacha and Contemporary Society, XXXIV (Fall 1997), 84). The verb po’ezia is employed throughout the gemara with various meanings, primarily: 1) bruising – as in olives (Shabbat 50b); 2) breaking open – as in nuts (Shabbat 115a). Since the object of the po’ezia as related to the hillazon is not to bruise it, but rather to reach its innards and extract the dyestuff, the usage implies the breaking open of something hard.

84 In fact, though it is impossible to prove a negative, there are no ancient dyes known to have been produced from kosher fish (personal conversation with Prof. Yehuda Felix).

85 “…between tekhelet and karti – between porphyra and prifinin…”


87 2:276, s.v. re-bineh.

88 R. Elyashiv, “Ha-Yegei min ha-Tamni bi-Tefillin u-bi-Tekhelet,” Zohar, Helek 3 (5758): 51, s.v. u-be-ezem.
Muttar be-Fikha

89 Mishevog Zahav 32:28

90 As an aside, R. S. Landau in a later responsum in his own Shivat Ziyyun (#2, s.v. u-mah she-amad) limits the application of muttar be-fikha only to things which have actual writing – “Torah aqmah.” (See also his Haggahot to Doresh le-Ziyyon, ch. 11, s.v. ve-hinei al migyet aseh).