

The Biblical 'āṭād: A New Proposal for its Identification

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Introduction*

Identification of the famous תְּאֵנָה in Jotham's parable (Judg 9) is notoriously difficult and controversial, because, it is alleged, the plant name 'āṭād has not been preserved in any living Semitic language, and no clear identification of it in any post-Talmudic source is extant.¹ The purpose of this article is to track the references to the 'āṭād in various sources from biblical times to the present. This inquiry will reveal that the 'āṭād was a fairly well-known plant among agriculturists in the Land of Israel because of its integration into orchard agriculture over the course of nearly two millennia. My study will also reveal that—contrary to the accepted view—the 'āṭād's name has been preserved in Arabic, but with a few phonetic changes that made it difficult to recognize. The preservation of its name through modern times in the Arabic language allows the 'āṭād to be identified with confidence.

Jotham's Parable

The 'āṭād's most significant appearance in the Bible is in Jotham's parable (Judg 9:6–21). The parable involves three of the finest fruit trees in the land—the olive tree, the fig tree, and the vine—each of which is approached

* I am grateful to Dr. Oz Golan and all the plant-loving field workers who helped me locate and learn about the 'āṭād in its natural habitat. Especially deserving of thanks is Avner Rinot, a man of plants and birds, who toured with me around the 'āṭād shrubs growing beside the olive trees, fig trees, and vineyards in agricultural terraces. : I should also like to thank Dr. Eve Levavi Feinstein for her editing and improving the English.

¹ The most comprehensive work on this subject, with a summary of all the sources and suggestions for the 'āṭād's identification, is Zohar Amar, *Flora of the Bible: A New Investigation Aimed at Identifying All of the Plants of the Bible in Light of Jewish Sources and Scientific Research* (Jerusalem: Rubin Mass, 2012), 212–14 [Hebrew]. In the present article these suggestions are enumerated succinctly.

about being appointed king of the trees, and each of which rejects the appointment, claiming it cannot stop bearing its fine fruit in order to manage royal affairs. After their refusals, the position is offered to the *'āṭād*. The *'āṭād* is juxtaposed to the other plants: it does not pride itself on its fine fruit and is ready to be anointed as king, on one condition: all the trees must “take shelter in its shade” (v. 15). We might extrapolate from this that the *'āṭād* is a tall tree with thick foliage. However, most commentators identify the *'āṭād* as a short bush and believe that the *'āṭād*'s demand in the parable is ironic, intended to ridicule its short stature and lack of foliage.² In contrast, scholars who identify the *'āṭād* with various tall trees with impressive foliage invoke the *'āṭād*'s demand in order to invalidate the view that the *'āṭād* is a short bush and to justify their own opinions.³ Since biblical literature contains both realistic and ironic descriptions, we cannot determine the answer to this question from the words of the parable alone. Rather, a comparative discussion with additional sources is necessary.

Fortunately, the parable provides adequate information about another feature of the *'āṭād*, which cannot be ironic: a flammable *'āṭād* can ignite an entire forest fire (v. 15). From the story beginning in v. 46 it is clear why the *'āṭād* was chosen to symbolize Abimelech: he burned alive the lords of Shechem and Thebez, symbolized by the trees of the forest, who previously appointed him king over them (“took shelter in his shade”). Eventually Abimelech himself is killed. The story indicates clearly that the *'āṭād* lives in proximity to fruit trees, that it is inappropriate for it to impose its shade on the other trees, that it is flammable, and that its burning endangers all the trees surrounding it.

² See Amar, *Flora of the Bible*, 212-14, and the sources cited there; Yehuda Feliks, *Nature and Land in the Bible: Chapters on Biblical Ecology* (Jerusalem: Rubin Mass, 1992), 123-25 [Hebrew]; idem, *Trees: Aromatic, Ornamental, and of the Forest: In the Bible and Rabbinic Literature* (Jerusalem: Rubin Mass, 1997), 128-30 [Hebrew].

³ Nogah Hareuveni, *Śiaḥ vā'ēṣ be-mōrešet Yiśrā'el* (*Tree and Shrub in the Heritage of Israel*) (Kiryat Ono: Ne'ot Qedumim, 1984), 58-66 [Hebrew], and Michael Zohary, *Plants of the Bible* (Cambridge: Cambridge University Press, 1982), 154, identified the *'āṭād* with *Ziziphus spinachristi* or the *Ziziphus lotus* tree.

Psalm 58:10

The *'āṭād* is mentioned one other time in the Bible, in Ps 58:10:

בְּטָרִם יְבִינוּ סִירְתְּכֶם אֶטֶד כְּמוֹ-חֵי כְּמוֹ-חֶרֶץ יִשְׁעֶרְנוּ

There is a consensus that this verse was corrupted in the copying process.⁴ In the first hemistich the *'āṭād* is mentioned in connection with *sīrā* shrubs, a known type of thorny bush. However, the two plants are not mentioned as a sequence of synonyms but rather as two different plant types in close proximity to one another, allowing the *sīrā* to learn and imitate (יְבִינוּ “understand”) a particular trait from the *'āṭād*. As some commentators have suggested,⁵ it seems that the suffixed possessive pronoun כֶּם in the word סִירְתְּכֶם was originally the word כְּמוֹ, which was affixed to the preceding word, and which generally repeats in two hemistichs of the same verse in this section of the psalm.⁶ If יְבִינוּ is original to the verse, then the *sīrā* shrubs are meant to imitate the *'āṭād*'s positive behavior.⁷ Because of the difficulty of understanding this verse literally, it has been suggested that יְבִינוּ is the result of an erroneous metathesis of the word יִבְנוּ “[they] will bear fruit.”⁸ This explanation accords with the main difference between the two thorny shrubs: the *sīrā* functions only as firewood, whereas the *'āṭād* also bears edible fruit; it is possible to feed animals with the edges of its soft branches,

⁴ See, e.g., Charles Augustus Briggs and Emilie Grace Briggs, *A Critical and Exegetical Commentary on the Book of Psalms*, ICC (New York: Scribner's, 1907), 2:45-46. In Briggs and Briggs's opinion (p. 42), this psalm is one of the most ancient and can be dated to the days of the United Kingdom. Mitchell Dahood, *Psalms*, 3 vols.; AB 16-17A (Garden City: Doubleday, 1965-1970), 2:56, 62, states: “The Hebrew of this verse is unintelligible to me.” LXX translates יִשְׁעֶרְנוּ as καταπίεται, a verb that normally translates the Hebrew root בָּלַע, “to swallow.”

⁵ E.g., Briggs and Briggs, *Psalms*, 2:45.

⁶ As in the second hemistich of v 9, which requires כְּמוֹ נָפַל or כְּנָפַל.

⁷ In Briggs and Briggs' opinion (*Psalms*, 2:48), the Hebrew *Vorlage* of the Aramaic translation had יָבוֹן.

⁸ See *Biblia Hebraica*. This understanding relies on Symmachus's Greek translation αὐξηθῶσις and the Vulgate “crescent,” which mean “to grow,” “to strengthen,” etc.

and even with the branches themselves once the thorns have been burned (see below).

כְּמוֹ-חֶרֶץ יִשְׁעֶרְנוּ is generally understood to mean “it will destroy it in a storm.” However, we cannot exclude the possibility that this is a corrupted version of חֶרֶץ שְׁעֶרְנוּ “singeing his hair,”⁹ meaning that the plant’s thorns, which are compared here to hair, are burned to preserve the branches (see below).¹⁰

It is possible that an awareness of the existence of soft branches behind the *’āṭād*’s thorns underlies the Targum of this verse, which reads, “As long as the wicked [who are compared to the thorny *sīrā* bushes] are not made soft, I will harden them like the *’āṭād* [in the *’āṭād*’s unique manner of being hard on the outside but soft on the inside], until they [are] damp like unripe fruit, [and then] they will be destroyed, as in a storm.”¹¹

The ’āṭād in Various Bible Translations

The Targum translates *’āṭād* as אֶטָדָא, while דָּרָדָר in Gen 3:18 is translated as אֶטָדִין. In the Peshitta, *’āṭād* is translated as ܐܬܕܐ, apparently as a result of assimilation of the *dalet* to the *tet*. We cannot determine from this whether this was the Aramaic term for the plant or whether the translators adopted the Hebrew name for it; regardless, this does not aid in clarifying the plant’s identity.

⁹ Compare Dan 3:27, וְשִׁעַר יִרְאֶשְׁהוֹן לֹא הִתְחַרְךְ.

¹⁰ One should consider the possibility that the letter ח in the phrase כְּמוֹ חֵי was created as a result of the ligature of the letters חו in ancient Hebrew writing, almost perfectly creating the form of a ח. This assumption enables a more logical reading than the Masoretic version, כְּמוֹהוּ, בְּטָרִם יִנְיְבוּ סִירוֹת כְּמוֹ אֶטָד, כְּמוֹהוּ כְּמוֹ חֶרֶץ שְׁעֶרְנוּ, and the verse as a whole.

¹¹ עַד לֹא יִתְעַבְדּוּן רְשִׁיעִיא רְכִיבֵי אֶקְשׁוֹן הֵיךְ אֶטָדָא עַד דְּהִינוּן רְטִיבִין כְּבוֹסְרָא כְּעִלְעוּלָא יִשְׁצִיגוֹן. Regarding the moist character of the unripe fruit, see m. *Shebi’it* 4:8; m. *Gittin* 3:8.

The Septuagint translators in second-century BCE Egypt translated *’āṭād* as ῥάμνος, as did Theodotion and Aquila in the second century CE. Aquila’s is the most important translation among these because he lived in the Land of Israel at a time when the *’āṭād* was a known plant, integrated into orchard agriculture, as discussed below. However, the Greek term chosen for the *’āṭād*’s translation is unhelpful in resolving its identity: the best description we have of the plant called *rhamnus* in Greek is that of the first-century CE Greek pharmacologist and botanist Pedanius Dioscorides.¹² Dioscorides describes three types of thorny shrubs to which the name *rhamnus* is ascribed. These descriptions characterize many species known today, and different researchers have suggested a variety of identifications for them.¹³

Most modern scholars¹⁴ who sought to identify the biblical *’āṭād* hoped that Pedanius’s writings would be helpful because of a paragraph in which he explains that the plant *rhamnus* was called *atadin* (ἄταδιν) by “the Africans.”¹⁵ However, a deeper inquiry into the critical edition of Pedanius reveals that this paragraph does not appear in the ancient manuscripts of the book, and it seems to be a gloss that has been added to the original version of the book by another hand.¹⁶

¹² Pedanius Dioscorides, *De materia medica* §119.

¹³ See Dioscorides Pedanius, *De materia medica: Being an Herbal with Many Other Medicinal Materials*, trans. T. A. Osbaldeston and R. P. A. Wood (Johannesburg: EBIDIS, 2000), 117, §§1-119, including references to other suggestions. These alternative suggestions include *Uva-crispa*, *Grossularia simpliciacino*, *Spinosa sylvestris*, and others. Finally, *Rhamnus* has been established as a scientific name of the buckthorn and its many species.

¹⁴ Amar, *Flora of the Bible*, 213.

¹⁵ “The Africans” refers to the inhabitants of the northern part of the continent with whom the Roman Empire was familiar. It is not clear in which language the author heard the name *atadin*. If he heard it in Punic, the plural suffix *-in*—which does not exist in this language—is puzzling, unless *’āṭādīn* in both rabbinic Hebrew and Punic does not indicate plurality but rather another type of *’āṭād*.

¹⁶ C. Sprengel, ed., *Pedanii Dioscoridis Anazarbei: De materia medica. Libri quinque. Ad fidem Codicum Manuscriptorum* (Leipzig: Cnobloch, 1829), 114. I am grateful to Dr. Leah DiSegni for helping me clarify this issue. In modern versions of the book, the brackets surrounding the paragraph are missing, resulting in uncritical reliance on the gloss.

Moreover, as noted above, Pedanius does not describe one specific plant known as *rhamnus* but rather explains that this name is ascribed to three different thorny shrubs. This fact illuminates the Septuagint's choice of this translation for the word *'āṭād*: it appears that, lacking a specific Greek name for the *'āṭād*, they chose this one because it denominated a variety of species of thorny shrubs.

Sa'adia Gaon (9th–10th century CE) translated *'āṭād* into Arabic as *'awsaj* (عُوسَج).¹⁷ In his day this term was used as a general name for thorny shrubs, and it is clear from here that he could not identify this specific plant where he lived.¹⁸ In contrast, the Peshiṭta's ninth century translation into Arabic¹⁹ specifically identified the *'āṭād* as one of the plants called *'awsaj* and translated it *'awsaj alqatād* (عوسج القتاد), that is to say, the thorny shrub of the type called *'awsaj*, named *qatād*, which is the identification of the *'āṭād* proposed in this study.²⁰

Rabbinic Sources

The *'āṭād* is mentioned fourteen times in Tannaitic and Amoraic literature and in midrashic literature based on rabbinic writings, sometimes in the plural form *'āṭādim/in*.²¹ In rabbinic literature, the *'āṭād* is categorized as an *אֵילָן*. This term in rabbinic Hebrew refers to perennial plants whose leaves grow from branches, setting them apart from *דְּשָׁא* (lit. “herbage”), a category

¹⁷ Jonah ibn Janah (10th–11th century CE) follows Sa'adia.

¹⁸ See Edward William Lane, *An Arabic-English Lexicon* (Beirut: Librairie du Libnan, 1968), 5:2042, which has a collection of different identifications gathered from different medieval sources. The term *'awsaj* used today to designate *Lycium europæum* was not used to name a specific plant until the last century but rather was a general name for thorny shrubs.

¹⁹ See M. P. Weitzman, *The Syriac version of the Old Testament: An Introduction* (Cambridge: Cambridge University Press, 1999), 147.

²⁰ See Hassano Bar Bahlule, *Lexicon Syriacum: E pluribus codicibus edidit et notulis instruxit Rubens Duval* (Paris: Prostal Apud Ernestum Leroux Bibliopolam, 1901), 1:106.

²¹ The use of the plural does not necessarily imply that this is a general name for similar species, as Rabbinic Hebrew often uses the plural forms *שְׁעוּרִים*, *חִיטִּים*, and the like as general terms for particular species, in contrast to Biblical Hebrew, which tends to use the singular. The plural form, like *שְׁעוּרִים* or *חִיטִּים*, is also used in rabbinic Hebrew to designate grains of a plant instead of the whole plant itself. Sometimes in a single text the singular *'āṭād* and the plural *'āṭādim/n* are interchangeable in different manuscripts.

of very small plants whose leaves grow directly from the root. In other words, in contrast to Biblical and Modern Hebrew, in Rabbinic Hebrew אֵילָן includes what are designated today as trees, shrubs, and subshrubs.²²

Midrashic literature indicates that the 'āṭād's thorny coverage was its most striking and characteristic feature. *Yalqut Shimoni* on Judg 9 (§65) defines the 'āṭād as “an אֵילָן סָרֵק that is entirely thorns,” and Midrash *Tanḥuma* (*Wayyera*) says, “as this 'āṭād is full of thorns.”²³ According to the rabbis, אֵילָן סָרֵק (lit. “'ilān of futility”) does not necessarily mean a plant that does not bear edible fruit; rather, in contrast to fruit trees that people plant and care for, which are called אֵילָנֵי מֵאֲכָל (lit. “'ilāns of food”), the אֵילָנוֹת סָרֵק provided the farmer with an added benefit of fruit in addition to its primary crop. According to R. Huna, “they (אֵילָנֵי הַמֵּאֲכָל) are heavy with fruit ... but אֵילָנֵי סָרֵק are light in fruit.”²⁴ R. Yose states, “Any that is not planted throughout whole fields is אֵילָנֵי סָרֵק.”²⁵ אֵילָנֵי סָרֵק grew in proximity to fruit trees planted in groves, and people used to train the vines over the adjacent אֵילָנֵי סָרֵק (m. *Kil'ayim* 6:3; y. *Kil'ayim* 6:1).

Most valuable information on the 'āṭād appears in discussions of its status within the laws of *kil'ayim*, the prohibition of combining two types of plants. M. *Kil'ayim* 5:8 discusses “one who preserves thorns (shrubs) in the grove (הַמְקַיִם קוֹצִים בְּכֶרֶם)”, referring to thorny shrubs that invade a grove, which the owner decides to leave and integrate into the grove because he

²² See the detailed discussion in the *Talmudic Encyclopedia*, 1:528-34.

²³ See *Midrash Tanḥuma* (trans. John T. Townsend; Hoboken: KTAV Publishing House, 1989), 1:115.

²⁴ *Gen. Rab.* 16:3; *Yalqut Shimoni* on Joshua 1, §4. See also *Gen. Rab.* 5:9: “Rabbi Pinḥas says... even אֵילָנֵי סָרֵק yielded fruit.”

²⁵ M. *Kil'ayim* 6:5. In the same mishnah, two alternative opposing explanations are given. According to one opinion, an אֵילָן סָרֵק is a tree that does not produce fruit at all, while Rabbi Meir's opinion is that all trees other than the fig and olive trees are classified as אֵילָנוֹת סָרֵק.

finds them useful, an act described by the verb קיים, lit. “to maintain, to preserve.”²⁶ Such descriptions of wild shrubs that were “maintained” and left to grow between the trees planted in the grove reveal a feature of orchard agriculture in ancient Israel: farmers, familiar with the wild plants in their environs, selectively integrated some of them into their orchards, giving their orchards a special appearance different from modern groves, in which fruit trees protrude in an environment free of wild plants. One observing an ancient Israelite orchard would see fruit trees integrated with wild plants, which provided a secondary product. Other peoples in the area also had this practice.²⁷ The *’āṭād* is included in this category and is portrayed as such in Jotham’s parable and, more clearly, in rabbinic sources.

In discussing “thorny shrubs in a grove,” the Tosefta (*Kil’ayim* 3:15) and the Jerusalem Talmud (*Kil’ayim* 5:7) present a *baraita*²⁸ that provides additional information. The *’āṭād* was determined to have the status of an אילן rather than דשא, and so an *’āṭād* growing in an orchard did not violate the prohibition of *kil’ayim*, since אילן are not included within the plants transgressing the prohibition of *kil’ayim* in a grove. From the very need to discuss whether the *’āṭād* is an אילן or a דשא, we must conclude that the *’āṭād* is not a tree but rather a low shrub or a subshrub.

²⁶ For this use of the verb קיים, compare m. *Terumot* 2:3: “If one planted on the Sabbath, if in error, he may maintain (יקיים) it”; m. *Kil’ayim* 3:6: “He may not maintain (לא יקיים) the seeds between them”; *ibid.* 5:5: “one who plants vegetables or retains them in a grove.” For many other examples, see Eliezer Ben Yehuda, *A Complete Dictionary of Ancient and Modern Hebrew* (Jerusalem: Trust for the Memory of Eliezer Ben-Yehuda, 1948-1959), 12:5915 [Hebrew].

²⁷ From rabbinic sources also emerges the awareness that in the land of the Nabateans (“Arabia”) shrubs like these were integrated (using the verb קיים) among field crops: “In Arabia they keep (מקיימין) thorny shrubs of fields for their camels” (b. *Shabbat* 144b, b. *Baba Batra* 156b). Y. *Kil’ayim* 1:1 (twice) and 5:7 mention the preservation of thorny shrubs without stating whether the reference is to field crops or vineyards.

²⁸ A different version of this *baraita* appears in b. *’Erubin* 34b. Regarding the differences in the versions and clarifying the original version, see Saul Lieberman, *Tosefta Ki-Fshutah: A Comprehensive Commentary on the Tosefta* (Jerusalem: Jewish Theological Seminary, 1992), 2:634 [Hebrew].

This conclusion is reinforced by a discussion in the Jerusalem Talmud regarding the proper blessing for eating the 'āṭād's fruit. The Jerusalem Talmud (*Berachot* 6:1) presents a *baraita* quoting R. Hoshaya, a third-century CE Galilean Amora.²⁹ According to this *baraita*, whoever eats one of four fruits, including the 'āṭād, must recite the blessing for eating a דשא fruit (בורא מיני דשאים) rather than the blessing for eating a tree fruit (בורא פרי העץ), even though these four plants fit the botanical definition of אילן. Moreover, as noted above, the 'āṭād clearly is considered an אילן with respect to *kil'ayim*³⁰: The Jerusalem Talmud (*Kil'ayim* 5:7) explains: “there [where it is called דשא] it refers to [its] blessing, and here [where it is called אילן] it refers to [matters concerning] *kil'ayim*.”

The Mishnah (*Shebi'it* 7:5) and the Tosefta (*Shebi'it* 5:8) indicate that the 'āṭād's soft branches (לולבים) and their edges are edible; therefore, the rabbis had to determine whether the laws of the *Shemita*³¹ year apply to the plant. Their conclusion was that the laws apply to the 'āṭād's soft branches as they apply to those of any אילן, and that if they are sold, these laws apply to the money received in exchange for them (דמיהן). However, the laws of *bi'ur*, requiring the disposal of any gathered produce once the remaining produce of the species has been completely eaten by animals, do not apply to the soft branches and the money received for them. *Bi'ur* only applies to the leaves, “since they fall off their stem (lit. ‘their father’).” This indicates that the soft branches themselves do not fall off. Rather, they shed their leaves, and

²⁹ R. Hoshaya was probably born and raised in Parod, in the Galilee, which was where his teacher R. Bar Kappara lived. There he rose to greatness and later moved to Tzipori (Sepphoris).

³⁰ The Talmud does not clarify the reason for this exception. On various opinions surrounding this question, see *The Schottenstein Edition Talmud Yerushalmi: Oz Vehadar Text with an Annotated, Interpretive Elucidation, as an Aid to Talmud Study. Tractate Berachos*, vol. 2 (New York: Mesorah Publications, 2005), 64a².

³¹ The laws regarding the sabbatical year.

animals eat the leaves from the ground. It can be deduced from this that field owners used to pluck and gather these leaves and bring them home, and according to this *mishnah*, they are commanded to burn the gathered leaves once the leaves remaining in the field have been completely eaten by animals.

In addition to descriptions of the *'āṭād* growing in fruit tree orchards, rabbinic literature contains descriptions of the *'āṭād* growing in the “desert,”³² i.e., in uninhabited land. The Tosefta (*Soṭah* 4:2) mentions a series of miracles performed by the pillar of cloud that cleared the way for the people of Israel when they traversed the desert after leaving Egypt. Among these miracles, “it would burn off *sīrīm*, thorns, and *'āṭād*.” Similarly, in the Jerusalem Talmud (*Sanhedrin* 1:2 and *Nedarim* 6:8), the “*'āṭād* desert” is described as a place desolate of humans. On the other hand, the rabbis were puzzled by the name of the settlement גורן האטד (lit. “*'āṭād*’s threshing floor”) to the east of the Jordan, mentioned in Gen 50:10–11, asking, “Does the *'āṭād* have a threshing floor?” In y. *Soṭah* 1:10³³ there is an attempt to solve the riddle midrashically: “these are the Canaanites worthy to be threshed with *'āṭād*”—clearly referring to the thorny nature of the plant. In the Babylonian Talmud (*Soṭah* 13a), another explanation is suggested by R. Abbahu, based on the agricultural reality of the area: “it teaches that they surrounded it . . . like a threshing-floor that is surrounded with *'āṭād*.” R. Abbahu was one of the great second and third generation Amoraim of the Land of Israel; he lived in Caesarea but often visited towns and villages in Judah and the Galilee. His rulings touched on all aspects of life, including those related to agriculture. He seems to be describing a practice of surrounding the threshing floor with a circle of *'āṭād* plants, in keeping with a traditional agricultural practice in the area of using thorny plants as a type of hedgerow.

From the rabbinic sources cited here, it is clear that the *'āṭād* was known to be a wild plant integrated into groves and orchards until the

³² The term מִדְבָּר in this literature refers mainly to the modern term “subdesert.”

³³ See also *Gen. Rab.* 5:6.

Byzantine period, directly continuing the practice reflected in Jotham's parable in the Bible. As in the biblical parable, it stood beside vines, fig trees, and olive trees; its fruit did not compete with their fruits; and it was shorter than them in stature. The continuous integration of the *'āṭād* into groves in the Land of Israel over the course of approximately 1,500 years gave Jewish agriculturists a strong familiarity with this plant, and it is described in detail in rabbinic sources. It is a short shrub conspicuously covered in thorns, but it also has soft branches without thorns, which were used for food; its leaves are deciduous and could be gathered separately; and its fruit was picked and gathered and complemented the main fruits of the grove. Because of its thorny character, rows of *'āṭād* plants could be used to fence in orchards and threshing floors, to protect them from animal invasions. Their presence in both settled and desert areas suggests that there are various species and sub-species of the plant that adapted to different environments.³⁴

The information dispersed throughout rabbinic sources makes an additional contribution to understanding Jotham's parable, which depicts events *that take place entirely in one orchard* in which three fruit trees are planted with *'āṭād* shrubs “preserved” among them.

The Disappearance of the Hebrew Name and its Preservation in Arabic

'āṭād in Arabic Sources

With the Arab conquest in the seventh century CE, Arabic became the dominant language in the whole region; and as this occurred, the name *'āṭād* gradually disappeared. The *'āṭād* (أُطْد) is mentioned minimally and very generically in early Arabic sources. The word is not mentioned at all in Arabic sources and dictionaries compiled up to the thirteenth century.³⁵ *Lisān al-'Arab* (لسان العرب), compiled in the thirteenth through fourteenth centuries, defines the word as a synonym for “shrub” (عُوسَج), while the *Al-Qāmūs al-*

³⁴ See Michael Zohary, *Platanaceae to Umbelliferae*. Part 2 of *Flora Palaestina* (Jerusalem: Israel Academy of Sciences and Humanities, 1972), 54 ff.

³⁵ The word does not appear in the *Kitāb al-'Ayn*, from the eighth century, or in *Kitāb Jamharat al-Lughah* and *Tāj al-Lughah wa-Ṣiḥāḥ al-'Arabīyah*, from the tenth century.

Muḥīt (القَامُوسُ الْمُحِيط), from the fifteenth century, whose author lived for ten years in Jerusalem, defines it as a bush's cut-off branches (عِيدَانُ الْعُوسَج). Neither source identifies the 'āṭād with any specific shrub. Beyond these two brief mentions, any remnant of the word 'āṭād disappeared from Arabic sources and dictionaries, and it did not survive in any of the dialects spoken in the area.³⁶

The exception to this is the testimony of the late nineteenth century botanist P. Ascherson,³⁷ according to whom it is possible that in the area of Syria people used to pronounce the term *atīt* instead of *qatād* (see below), with ' in place of the *q* at the beginning of the word. It is impossible to know whether this is the result of the general shift of *q* into ' in some Arabic dialects, as Ascherson conjectures, or whether this is the preservation of an ancient pronunciation.

The situation described above raises the question: how did the name of a shrub that, according to Jewish sources, was widely known and prevalent until the Byzantine period, totally disappear from the language that replaced Hebrew and Aramaic as the primary spoken language, rather than being absorbed into the now dominant language as one might expect?

From 'āṭād to qatād

The answer to this question is that the word did not disappear. Rather, it was slightly altered after undergoing two phonetic changes, becoming *qatād* (قَتَاد).³⁸ This fact has confounded contemporary plant scholars in Israel and is the main reason for the heated arguments surrounding its identification. I will explain the two phonetic changes below.

³⁶ The 'āṭād as a plant name is not included in classic dictionaries such as Lane's *Arabic-English Lexicon*, Dozy's *Supplément aux dictionnaires arabes* (Leiden: E. J. Brill, 1881), and Kazimirski's *Dictionnaire arabe-français* (Paris: Maisonneuve et Cie, 1860). In these lexica, أ ط د, derived from وط د, "strong," is unconnected to plant life.

³⁷ P. Ascherson, "Nachträge und Berichtigungen," in I. Löw, *Aramäische Pflanzennamen* (Leipzig: W. Engelmann, 1881), 427.

³⁸ In some of the sources, it is called قَتَادَة in the singular and قَتَاد in the plural.

a. The ' / q interchange

It is widely recognized that in certain spoken Arabic dialects, the phoneme *q* has completely shifted into *ʕ*, and a less common shift *ʕ* > *q* also occurs in some dialects.³⁹ Less widely known is the fact that these two consonants often interchange in Semitic languages in general, and in Hebrew and Arabic in particular. For example, in one Semitic language a root may have an *ʕ*, while in other Semitic languages it occurs with *q*. This is the case with אָדִיר in Hebrew and *qadir* (قَدِير) in Arabic, which both mean “enormous.” Similarly, in the same Semitic language two roots may coexist, one with *ʕ* and the other with *q*, distinguishable by a minor semantic difference. This is the case with Arabic أَزْنَبُ which denotes a hare or rabbit and قَرْنَبُ which refers to a jerboa or a hare.⁴⁰

b. The π/ν interchange

The dentals *ṭ* and *t* are phonetically similar, differing only in the emphatic quality of *ṭ*. This similarity creates pairs of words and roots in Hebrew with subtle semantic differences between them: תור/טור, תעה/טעה, חרת/חרט, חתף/חטף, תפל/טפל.⁴¹ The *ṭ*/*t* interchange may be a result of the influence of other emphatic letters surrounding the letter. This situation occurs in the Hitpa'el stem of roots in which the first radical is *ṣadi*: הצטער, הצטנן, etc. The same can be seen in Aramaic, where original קשת, "ark," became קשט. More frequent are the variation *ṭ*/*t* between Arabic on one side, and Hebrew and the other West-Semitic languages on the other side. As

³⁹ See Rania Habib, *The Role of Social Factors, Lexical Borrowings and Speech Accommodations in the Variation of [q] and [ʔ] in the Colloquial Arabic of Rural Migrant Families in Hims, Syria* (MA thesis, University of Florida at Gainesville, 2005), 71-72.

⁴⁰ This linguistic issue was examined at length by this writer: Daniel Vainstub, “-Q Interchanging in Semitic Languages”, *ANES* 54 (2017): 63-79.

⁴¹ This list is for demonstration only and is not complete. See also *BDB*, s.v. “חפּל.” It is possible that this phenomenon also occurs in the pair שׁק”ט - חשׁק, which is affected by methatesis. Compare also Hebrew ט”ט// Syriac ܬܬ, ܬܬܬ.

in the present case, Arabic generally prefers *t* when other Semitic languages would prefer *ṭ*:⁴²

قتل // קט"ל

قتف // קט"ף

قتر, // קט"ר

קל"ט // (reservoir) قُلْتُ

مطق // מתוק⁴³

صلم, سطم // סת"ם

نبت // נב"ט

قتن // קט"ן

These two changes slightly altered the external appearance of the words, but their similarity is evident. Not only are the differences in their consonants a result of a recognized Semitic linguistic phenomenon, but their vowel schemes are identical.

As will be explained, the botanical characteristics and human utility of the plant called *qatād* in Arabic are remarkably consistent with those of that called *'āṭād* in Hebrew in light of the Jewish sources surveyed above. Scholars of modern Israeli plant life have had difficulty identifying the plant known to this day as *qatād* in Arabic (*Astragalus*) among plant names in Hebrew literary sources, despite its widespread presence in almost all parts of the country in multiple sub-species. Many have suggested identifying the *qatād*

⁴² It is possible that בּטל // בט"ל, “to separate,” “to fragment,” should be added to this list.

⁴³ The meaning of this verb in Arabic in the fifth form is “to taste, to enjoy delicious food” (Lane, *Arabic-English Lexicon*, 8:3021; Kazimirski, *Dictionnaire arabe-français*, 2:1123).

with the biblical *נֶבֶט*.⁴⁴ Because it was impossible to reach a consensus on an original Hebrew name, it was decided that a Hebraized sound should be given to the Arabic *qatād*, and so the new name *קָטָד* was created.⁴⁵

Qatād in Arabic Sources⁴⁶

The plant called *qatād* (قَتَاد)⁴⁷ has been documented in Arabic from the beginning of the botanical documentation in this language in the ninth century CE. It is mentioned in *The Book of Plants*, Abū Ḥanīfa ad-Dīnawarī’s famous composition (أبو حنيفة الدينوري, كتاب النبات). This book, of which only sections have survived, includes a list of all the plants and their characteristics according to written and oral evidence found by the author. Abū Ḥanīfa lived at the end of the same century and often quotes from the lost composition of Abū Ziyād al-Kilābī (أبو زياد الكلابي).⁴⁸ Abū Ziyād grew up in the Arabian Peninsula at the beginning of the ninth century, settled in Baghdad, and is considered a credible source, having gathered and documented plants in the entire expanse of Arabic dialects in his period. Needless to say, these compositions include invaluable information about the village culture and the ancient agriculture of the region, which did not change significantly over the generations from the Roman and Byzantine periods.

⁴⁴ Löw, *Aramäische Pflanzennamen*, 49. Among those who identify the *Astragalus* as the *נֶבֶט* are Zohary and Feliks. See references in Amar, *Flora of the Bible*, 253, n. 103.

⁴⁵ For a previous attempt to call it *נֶבֶט אֵיל*, see Nissim Krispil, *A Bag of Plants: The Useful Plants of Israel* (Jerusalem: Kana, 1987), 1186-87 [Hebrew].

⁴⁶ I am grateful to Dr. Keren Abbou HersHKovits for her help with the Arabic sources.

⁴⁷ In Abū Ḥanīfa’s writings: Muhammad Hamidullah, *Le dictionnaire botanique d’Abu Ḥanīfa ad-Dīnawarī (Kitāb an-Nabāt, de ى اءس)* (Cairo: Institut Français d’Archéologie Oriental, 1973), §752 describes another plant called *qtd* (قَتْد). According to its description, it seems to be different from the *qatād*. The *qtd* has a thick trunk from which camel saddles were made.

⁴⁸ The *qatād* is referred to—directly and indirectly—in Abū Ḥanīfa’s writings in the following places: Hamidullah, *Le dictionnaire botanique*, entries 75, 330, 719, 851, 934, 970; Aḥmad ibn Dāwūd Abū Ḥanīfah ad-Dīnawarī, *The Book of Plants: Part of the Monograph Section*, ed. B. Lewin, Bibliotheca Islamica 26 (Wiesbaden: Franz Steiner, 1974), entries 54 (pp. 16-17), 71 (p. 19). On the author and his writings, see Thomas Bauer, *Das Pflanzenbuch des Abū Ḥanīfah ad-Dīnawarī: Inhalt, Aufbau, Quelle* (Wiesbaden: O. Harrassowitz, 1988). On Abū Ziyād al-Kilābī, see *ibid.*, 203ff.

Other medieval dictionaries, including *Lisān al-‘Arab*, add details about the *qatād* and its uses among the region’s inhabitants.⁴⁹

The principal characteristic of the *qatād* cited repeatedly in this body of literature is its distinct thorniness, even in comparison to other thorn bushes. Its thorns “are similar to needles” and they cover the majority of the surface of its branches. Because of this quality, which made it difficult to access its branches, the *qatād* was included in different aphorisms and sayings as representing a great challenge guaranteeing a reward to one ready to overcome it through much toil.⁵⁰

Most of these sources define the *qatād* as *šajar* (شَجَرٌ), a term they use for trees and shrubs, similar to אֵילָן in Rabbinic Hebrew. The sources typically distinguish between two types of *qatād*: the “large *qatād*” and the “small *qatād*.” The “large *qatād*” has wooden branches, and its thorns are short and twisted. Sheep like eating the leaves of the soft branches before they become covered in thorns. Even the small *qatād* has sub-species, and its appearance is different in each region. One of Abū Ḥanīfa’s descriptions of the small *qatād* seems to describe the Spiny Milk-Vetch (*Astragalus spinosus*): “that which its fruit is a bladder (نَفَاخَةٌ), similar to the bladder of the ‘ušar (عُشْر) tree.”⁵¹ Some sources differentiate between them by providing the names of places where they are typical, such as the *Hawbar’ qathad* (قَتَادِ هَوْبَرٍ), meaning the type of *qatād* typical of the place called *Hawbar*.⁵² Abū Ḥanīfa also relates that in the Arabian deserts there is a special type of *qatād* used to produce resin, clearly referring to tragacanth, or “goat-shrub” (*Astragalus gummifer*).⁵³

⁴⁹ The *qatād* is mentioned in the entry under its name in the following dictionaries: *Lisān al-‘Arab*, *Al-Qāmūs al-Muḥīṭ*, *Tāj al-Lughah wa-Šiḥāḥ al-‘Arabīyah*.

⁵⁰ On utilizing thorny plants for feeding animals in Nabatean lands, see n. 27, above.

⁵¹ عُشْر is commonly identified with the “apple of Sodom” (*Calotropis procera*).

⁵² See *Al-Qāmūs al-Muḥīṭ*, s.v. الهَنْزَةُ.

⁵³ Hamidullah, *Le dictionnaire botanique*, entry 934. This species is often identified with the plant called *tragacanth* in classical sources. Healing qualities are attributed to the resin of this plant. Theophrastus teaches that the *tragacanth* (τραγάκανθα) produces resin from its

Different sources gathered by Abū Ḥanīfa attribute different shapes to the *qatād*'s fruit, likely because of the variety of its sub-species. According to one description, the *qatād*'s fruit “blossoms like a palm tree that blossoms from a seed,” and it is shaped like a capsule (سِنْفَة), like the fruit of the acacia.⁵⁴ According to another source, its fruit is similar to an apple, it is hollow, and, if thrown to the ground and kicked, it will make a noise.⁵⁵ Its height is generally like that of “a man sitting (on the ground),” indicating that it is a shrub or a subshrub.

The presence of the *qatād* plant was, at times, a landmark for recognizing a specific place, and the name of that place could be drawn from the plant, similar to *Goren Ha’āṭād* in the Bible.⁵⁶ However, the most significant contribution the Arabic sources provide on this topic is information about the uses of the *qatād* branches covered in thorns. According to the descriptions, the inhabitants of the region were aware that under the layer of thorns covering most of the plant were soft branches sufficient for use as animal food during a drought. In order to uncover them, they burned the *qatād* until the fire consumed the thorn layer and the soft branches were exposed for the animals to eat. This unique method of

trunk and entire branch system (book 9, ch. 1, §3). Pliny the Elder states that the *tragacanth* (*tragacanthum*) that grows in Crete is preferable to that grown in the country of Medes or Achaia and that its cost could reach up to three dinars for one pound (book 13, ch. 36, §115). Dioscorides describes in two different sections the plants called *tragacanthum* and *astragalus*, each of which has different medicinal properties (the *tragacanthum* is discussed in book 3, §23; the *astragalus* is discussed in book 4, §62). These two descriptions appear in a discussion of concentrations of medicines derived from roots. In book 3, §17, another plant, which is compared to the *tragacanthum*, is discussed. It has been suggested that the plants discussed in the following sections should be identified with different species of *Astragalus*, but no relationship can be inferred from their names, and the issue remains contested (book 1, §113; book 2, §126). On the different suggestions, see Dioscorides, *De materia medica* (ed. Osbaldeston and Wood), in the sections cited above. Aquila used the word τραγάκανθα to translate ברקנים in Judg 8:6, unlike other ancient Greek translations; however, according to Eusebius of Caesarea, Aquila translated it ἀκάνθας. See Frederick Field, *Origenis Hexaplorum: Quae supersunt sive veterrum interpretum graecorum in totum vetus testamentum fragmenta* (Oxford: E Typographeo Clarendoniano, 1875), 427, note 15. See also Yehuda Feliks, *Plant World of the Bible* (Ramat-Gan: Masada, 1968), 274 [Hebrew].

⁵⁴ Hamidullah, *Le dictionnaire botanique*, §851; *Lisān al-‘Arab*, s.v. قَتَد.

⁵⁵ Hamidullah, *Le dictionnaire botanique*, §851.

⁵⁶ *Lisān al-‘Arab*, s.v. قَتَد; *Al-Qāmūs al-Muḥīṭ*, s.v. الْقَتَادُ.

utilizing the *qatād* became so ingrained that special terms based on the word *qatād* developed: burning it for feeding animals was called *taqtīd* (تَقْتِيد); camels habituated to eating the plant after the thorns were burned were called *qatādiyyah* (قَتَادِيَّة), meaning “the *qatādians*” or “those who are used to eating *qatād*”; and a camel who had eaten the branches before the thorns had been completely burned off, resulting in internal thorn pricking, became a “*qtdt*’ camel.” The author of *Lisān al-‘Arab* adds that eating *qatād* influenced the color of a female camel’s milk, making it whiter. Some burned the plant where it was rooted, while others cut it down with a special tool with a long handle so they would not be pricked by the thorns,⁵⁷ gathered it in piles, and then set fire to the heaps. As will be discussed further below, this process accords with Jotham’s parable, in which the *‘ātād* growing among the fruit trees bursts into flame and ignites the neighboring trees. Below is one of Abū Ḥanīfa’s descriptions⁵⁸:

If people were in need of pasture, they would burn [the *qatād* shrubs] until the thorns were consumed by fire, and afterwards they would feed the camels. And [this activity] is called the *taqtīd*. . . .

If you cut the *qatād* and afterward burn its thorns, [you can] afterward feed the camels, and they will grow fat from eating it. This occurs in drought years.

⁵⁷ See *Lisān al-‘Arab*, s.v. عضد. The *‘dd* is a harvesting tool comprised of a long handle meant to protect one from the thorns, with a sickle at its end. It seems that a seemingly similar tool was used in biblical times to harvest the flax close to its source in the ground, for in the Gezer Calendar the appropriate agricultural season is called עֶצֶד פֶּשֶׁת, “the [action of] *‘sd* of the flax”.

⁵⁸ Hamidullah, *Le dictionnaire botanique*, §851; *Lisān al-‘Arab*, s.v. قَتَد; Al-Qāmūs al-Muḥīṭ, s.v. القَتَاد.

The act of burning *qatād* shrubs was not at all simple. Rather, it was very dangerous, inspiring poetic, emotional prayers⁵⁹ such as the following: “My God, save me from the burning of the *qatād*!”

It should be noted that the burning of *qatād* shrubs in order to remove their thorns was until recent generations in Kurdistan, where it was customary to burn tragacanth shrubs (*Astragalus tragacantha*), make incisions in them, and extract resin.⁶⁰ The name *qatād* is used in Arabic dialects spoken in the region to this day, and with their help it is possible to delineate the continuous chain of evidence about the name of the plant. Because of the fact that it has been preserved as the name of a number of species of the genus *Astragalus*, it was chosen to designate all species of the genus *Astragalus* in modern Arabic.

The genus *Astragalus* is one of the most widespread plant genera in the Land of Israel and is represented by over fifty species of shrubs and subshrubs, some with thorns and some without.⁶¹ When we try to identify the biblical and Talmudic *’āṭād*, we must ignore the expansion of the name *qatād* to designate all species of *Astragalus* in modern Arabic, and focus only on the species of *Astragalus* that were originally called *qatād*. Good examples of this distinction are Schweinfurth’s scholarship and A. Issa’s taxonomy from the beginning of the twentieth century. Issa compiled an extensive multilingual taxonomy of plant names based on their names in Arabic dialects spoken throughout the Arabic-speaking region. From his lists it is clear that by his time some species of the genus *Astragalus* are not called *qatād* in any Arabic dialect, while others are.⁶² A similar picture arises from Schweinfurth’s scholarship.⁶³

⁵⁹ Hamidullah, *Le dictionnaire botanique*, §851; Lisān al-‘Arab, s.v. قَاتَد.

⁶⁰ See Feliks, *Plant World of the Bible*, 274.

⁶¹ See Zohary, *Flora Palaestina*, 54ff.

⁶² Ahmed Issa, *Dictionnaire des noms des plantes: En latin, français, anglais et arabe* (Cairo: Impr. nationale, 1930), 25-26. The seven species of the *qatād* Issa surveys are: *A. arnacantha*

It is possible that the name *'āṭād* in Jewish sources designated many species of *Astragalus* that were similar in their general form but might or might not have thorns. It is even possible that certain species were used for fruit while others did not have fruit and only the leaves and soft branches were used (and, during droughts, the moist core was also used once the thorns were burnt). As with other thorny shrubs in the region, the inner branches of the plant do not burn when the thorns surrounding them are consumed. This is because the branches and roots preserve sap all the summer, and in the last month of summer, about a month before the first rain, when the environment is dry, this sap flows along the branches, which begin to blossom weeks before neighboring plants. This process, which takes place in August through September, provides the internal part of the plant with moisture and prevents it from burning. All species of *Astragalus* have pinnate leaves, which fall out of the leaf axis over the course of the year; in the Mishnah's words, the leaves "fall off from their father." In thorny species the leaf axis, which does not fall out, becomes a thorn.

Below are species of *Astragalus* that may be among the plants called *'āṭād* in Jewish sources. These species are perennial and are well suited to the central mountain range and slopes stretching from the Galilee to the Negev, regions in which orchard agriculture flourished in antiquity, including in terraces. These types of *astragalus* and others can be seen until today in proximity to olive trees, fig trees, and vines in uncultivated margins of lines of trees, mainly at the tops or bottoms of terraces' walls (see the accompanying images). Another characteristic, mentioned above, is that when set on fire all its thorns are consumed but its branches are not, since the fire cannot grip them due to their internal moisture. When the thorns

(described as the largest of the *qatād* species), *A. cahiricus*, *A. drusorum*, *A. forskalii*, *A. gummifera*, *A. sieberi*, and *A. tribulcides*. Some of these have not been identified in Israel.

⁶³ See Georg Schweinfurth, *Arabische Pflanzennamen aus Aegypten, Algerien un Jemen* (Berlin: D. Reimer, 1912), 8, 67.

disappear, goats can satisfy their hunger by eating the branches, as described in Arabic sources.

a. *Astragalus deinacanthus*⁶⁴

The branches of this *Astragalus* are surrounded by formidable thorns, which can reach a length of up to 20 centimeters and which prevent humans and animals from touching the internal part of the plant. However, the edges of its branches produce soft palms every year that stretch beyond the edges of the thorns, with leaflets that can be gathered. Its small fruits come in clusters. We do not have evidence of the fruit being eaten, but it is possible that the full clusters were cooked or pickled.

b. *Astragalus bethlehemiticus*⁶⁵

The characteristics of this *Astragalus* are similar to those of the *Astragalus deinacanthus*, but its thorns are shorter, look like needles, and are arranged in a slightly different way.

c. *Astragalus spinosus*⁶⁶

This *Astragalus* is densely covered in thorns. Its general characteristics are similar to those of the previously mentioned species, but its fruit is shaped like a bladder.

d. *Astragalus alexandrinus*⁶⁷

This *Astragalus* has no thorns. There is evidence of harvesting and eating its capsuled fruits.⁶⁸

⁶⁴ Zohary, *Flora Palaestina*, 78, no. 42.

⁶⁵ Ibid., 77, no. 41. On its uses in folk medicine, see Krispil, *A Bag of Plants*, 1193.

⁶⁶ Zohary, *Flora Palaestina*, 78, number 43. On its uses in folk medicine, see Krispil, *A Bag of Plants*, 1193.

⁶⁷ Zohary, *Flora Palaestina*, 73, number 32.

⁶⁸ Krispil, *A Bag of Plants*, 1191, 1193–95.

Conclusions

The *'āṭād* is one of the wild shrubs common to the region of Israel, of which many species and sub-species have developed. From biblical times, it was integrated in orchard agriculture in the Land of Israel and placed beside common fruit trees, affording the owner of the grove a secondary product. The integration of this shrub into orchards into which it penetrated was common practice until the end of the Byzantine era and ensured the preservation of its name and the ability to identify it in Hebrew and Aramaic until this period. In addition to its fruits and soft leaves, the *'āṭād* shrubs were burnt where they grew, or its branches were cut down and burnt in piles so that the layer of thorns could be burnt away and the soft branches used as animal food could be exposed. This activity took place in the summer, mainly in years of drought, when the surrounding plant life was very dry and flammable, putting the entire orchard at risk of burning.

This is the background of Jotham's parable. With the changing of languages after the Arab conquest, its name became *qatād*, and this is how the name has been preserved to this day in the Arabic dialects of the region. This linguistic identification reveals a wealth of botanical and anthropological data about the *'āṭād* since biblical times.

Seeing the *'āṭād*, the irony of inviting this short subshrub to be king is readily apparent. The irony is intensified by the *'āṭād*'s demand for all to take cover in its shade, since its shade is meager, not merely because of its size but because of its semicircular form and because of its layer of thorns, which intimidate all who seek shade. All these are trenchant similes referring to Abimelech's personality and unsuitability for kingship, on the one hand, and to the blindness of the people of Shechem choosing him as king, on the other.

An additional puzzle is also clarified here. In v 15 of Jotham's parable the burning of the *'āṭād* is presented as self-explanatory: there is no need to clarify who set it on fire and why "fire may issue from the *'āṭād*." Why should there be fire in the *'āṭād*? It seems the act of burning piles of *'āṭād* branches

was done routinely at the end of the summer, after the surrounding pasture had reached its lowest point; therefore, the parable was very clear to its intended audience. The possibility that the fire could ignite the entire orchard because of carelessness was familiar to them, and the author of the text had no need to explain it.

Figures



Figure a – *Astragalus deinacanthus* growing in terrace slopes in the Judah hills.



Figure b – Astragalus deinacanthus growing in terrace slopes in the Judah hills.



Figure c – *Astragalus deinacanthus* growing in terrace slopes in the Judah hills.



Figure d – *Astragalus deinacanthus* growing in terrace slopes in the Judah hills.



Figure e – *Astragalus deinacanthus* growing in terrace slopes in the Judah hills.