Flax and Linen Terminology in Talmudic Literature

Nahum Ben-Yehuda

Bar Ilan University

Follow this and additional works at: http://digitalcommons.unl.edu/texterm
Flax and Linen Terminology in Talmudic Literature

Nahum Ben-Yehuda, Bar Ilan University

In Textile Terminologies from the Orient to the Mediterranean and Europe, 1000 BC to 1000 AD, ed. Salvatore Gaspa, Cécile Michel, & Marie-Louise Nosch (Lincoln, NE: Zea Books, 2017), pp. 122-152.
doi:10.13014/K2VM49F3

Copyright © 2017 Salvatore Gaspa, Cécile Michel, & Marie-Louise Nosch.
Photographs copyright as noted.
Flax and Linen Terminology in Talmudic Literature

Nahum Ben-Yehuda

Material culture data is mentioned in Talmudic (or ‘rabbinical’) literature when a relevant legal (‘halakhic’) or homiletic (‘midrashic’) context arises. Therefore, certain details may be lacking or ambiguously stated. This however is not presented in a systematic and detailed manner, such as in ‘Pliny’s Natural History’. Additional classical authors mention flax and linen. First and foremost: Diocletian in his edict of maximum prices. And in less scope and detail: Xenophon, Virgil, Strabo, Columella, Pausanias, and Theodosius II – in his codex. In some instances, these sources may be useful for comparison, contrast and clarification – to Talmudic sources.

It is difficult to gauge the exact societal extent of the phenomena mentioned in this literature, however it may be assumed that they can be viewed as a representative sampling, or reliable cross-section of the material culture found in contemporaneous society in those periods (c. 2nd - 5th centuries AD) and regions (Land of Israel and Babylonia). This premise is unaffected by the academic disagreement which exists regarding the extent to which Talmudic laws were actually practiced by the general populace outside of the sphere of the Sages themselves. There is, however, academic consensus regarding those aspects of material culture which are described in this literature as reflecting Sitz im Leben.

Historiography based upon Talmudic literature source material is a complex and challenging science. It will encompass aspects such as the use of various Aramaic dialects, the identities, backgrounds, times and locales of tradents and the legal and homiletic contexts in which the material culture data is presented. Nevertheless, these are outside of the scope of the current paper, which will focus strictly on material culture itself.

The principal rabbinic works from which data is

---

1. This research was assisted by grants from the Memorial Foundation for Jewish Culture and “Targum Shlishi” Foundation – for which I am grateful. I offer my thanks to Professor Steven Fassberg, Professor Leib Moskowitz, Dr. Yitzhak Shlesinger, Professor Michael Sokoloff, and Dr. John Peter Wild for their respective good advice and patience with my numerous queries.
3. (244-311 AD)
4. (430-354 BC)
5. (70-19 BC)
6. (64 BC-24 AD)
7. (4-70 AD)
8. (110-180 AD)
9. (401-450 AD)
10. One who is responsible for preserving and handing on the oral tradition, in this case the Rabbis or “Sages”. Oxford Bible Studies Online.
gleaned include: Mishna, Tosefta, Mekhiltta, Sifra, Sifre,11 Jerusalem Talmud,12 Babylonian Talmud,13 Midrash Bereshit Rabba, Midrash Tanḥuma,14 and Aramaic ‘Targums’15 of the Pentateuch and Hebrew Bible. Each of these works embodies content originating in various periods, some of them long before the date of their respective final redactions.

Pioneers in this field of Talmudic material culture research in general, and textiles specifically, were Gustav Dalman,16 R.J. Forbes,17 Abraham Herszberg,18 Samuel Krauss,19 and Saul Lieberman.20 Since then, our knowledge of Roman-era textiles has been greatly enhanced, due to research advances21 in the fields of archaeology, botany, iconography and philology. Notable among those whom have contributed to this field are Yehuda Feliks,22 John Peter Wild,23 Daniel Sperber,24 Ze’ev Safrai,25 and Michael Sokoloff.26 All of the above will be accounted for in the current paper.

Flax-linen27 production: longue durée

Reconstruction of the complete flax-linen chaîne opératoire may be performed by comparison and cross-checking flax-linen production in the Land of Israel28 with that in various other regions and periods, such as Ancient Egypt,29 Roman-era Europe, Asia Minor and Egypt, Roman30 and Medieval Iberia,31 and modern-day Northern Ireland and Great Britain,32 Croatia,33 Lithuania34 and Flanders.35 In light of parallel descriptions, we can deduce that the processes of flax-linen production are a longue durée phenomenon with quite similar chaîne opératoire, notwithstanding some minor variations. This basis corroborates the Talmudic information, enables filling of any gaps and enhances clarification of ambiguities which may exist therein.

An additional benefit of this deduction is that the implements historically used in the various stages of
manufacture, which have indeed become more sophisticated or mechanized with time, but their respective basic functions remain essentially the same. One may choose, therefore, to illustrate Talmudic era production processes with implements from other periods and regions when contemporaneous and local illustrations are not available.

A noticeable exception to the above rule is modern field or dew retting as opposed to historical pool retting. The hot dry climates of Egypt and the Land of Israel proximate to the flax-pulling season do not enable the growth of fungi essential for this process, in contrast to the respective damp temperate climates of Western and Eastern Europe. Therefore, field retting apparently did not and does not exist in the regions generally relevant to Talmudic literature.

Detailed chaîne opératoire (with respective occupational names)

{1} 39 Soil preparation
{2} Sowing (Sower)
{3} Weeding (Weeder)
{4} Commerce – of plants currently growing in the field. (Trader, Merchant) This procedure is optional, for the flax may be further processed by the farmer (and his family) himself.
{5} Pulling, uprooting (Puller)
{6} Drying, stooking (Stooker) This procedure is optional, for sometimes the flax straw is already


37. Pausanias, Elis I, v. 2-5: “The fine flax of Ellis (Approximately 38° N. latitude, 70 M elevation) is as fine as that of the Hebrews, but it is not so yellow.” Assumedly he is referring to the flax fiber. Pool-retted flax in the hot climate of the Land of Israel (Beth Shean is 32.5° N. latitude, 121M below sea level elevation) produces blond-colored fibers. Dew-retted fibers range in color from ecru through dark gray. (NBY) See Carter 1920, 32: Different colors of flax under various water-retting conditions.

38. Freckman 1979, 91-102: Retting could be undertaken in ponds or tanks – or simply by long exposure in the fields. Dew retting in the climatic conditions of modern and historical Mesopotamia is a topic which has not yet been researched (NBY).

39. For the significance of the various types of parentheses and brackets used in this paper, see “Symbols” infra.

40. Pliny, Book 19, chapter 2: “Flax is chiefly grown in sandy soils, and with a single ploughing. No other plant grows more quickly: it is sown in spring and plucked in summer, and owing to this also it does damage to the land.” Bradbury 1920, 39-41. Carter 1920, 19. DeWilde 1999, 19-22.

41. Columella Book II. x.17: “Flax-seed should not be sown unless it yields a heavy crop and brings a good price in the region where you farm; for it is particularly hurtful to land. For this reason it requires a soil which is very rich and moderately moist. It is sown from the first of October to the rising of Aquila, which falls on the seventh day before the Ides of December. An iugerum of land is sown with eight modii of it. Some hold that it should be sown in poor land, and very thickly, so that the flax may grow with a more slender stem. The same people also say that if it is sown in rich ground in February, ten modii should be broadcast to the iugerum.” Vogelsang-Eastwood 1992, 5 mentions that flax is sown in Egypt in mid-November. That is nearly identical to the sowing date in the Land of Israel, in contrast to Spring sowing in many other regions. DeWilde 1999, 32-29. Feliks 1963, 149 examines the dates for sowing flax in the Land of Israel. On p. 156 he discusses the proper density of seeds necessary to obtain the desired non-branching plants.

42. Columella Book II. xii.5: “Eight or ten modii of flax seed are sown with four days ploughing, harrowed with three days’ work, weeded with one, and pulled with three, the total amounting to eleven days’ work.”


44. Safrai 1994, 229: “A number of sources also indicate that the wife of a farmer, who raised sheep or cultivated flax, would sell clothes woven from either wool or linen.” Presumably, she herself either performed the labors herself or supervised them being performed on site.

45. Pliny, Book 19, chapter 3: “With us the ripeness of flax is ascertained by two indications, the swelling of the seed or its assuming a yellowish color. It is then plucked up and tied together in little bundles each about the size of a handful, hung up in the sun to dry for one day with the roots turned upward…” Vogelsang-Eastwood 1992, 45 provides an illustration of Ancient Egyptian flax pulling. DeWilde 1999, 49-64. Feliks 1963, 197-198 examines the dates for pulling flax in the Land of Israel. On p. 219 emphasis is placed on the method of harvesting – by pulling, not cut with a sickle as grain crops.

dry when pulled and suitable for retting, or is retted while still moist.

(7) Binding, stacking, storing (with seed bolls still attached to their stems). This procedure is optional, for the flax straw may be deseeded and retted immediately after pulling.

(8) Transport of the flax straw to site of deseeding. Transport in antiquity was executed by porter, donkey or camel. This procedure is possible, not mandatory, as deseeding may be performed on-site, without need for transport at this stage. (Porter, Cameleer, Donkey driver)

(9) Commerce – in pulled and dried flax straw. This procedure is possible, not mandatory, as further stages of production may be performed by the farmer himself. (Trader, Merchant)

[10a] Crushing seed bolls [with a mallet] – to deseed before retting (the retting process would ruin the seeds, rendering them unusable for sowing the next year). (Crusher)

[10b] Rippling [with a “ripple”- a comb with widely spaced tines] seed bolls from the remainder of the flax plant, to deseed before retting. Sometimes flax straw is retted without deseeding, either when the seeds are immature due to early pulling (in order to obtain very fine fibers), or when new seeds are purchased to sow each year, rendering deseeding extraneous. Only one of the above two procedures is performed. (Rippler)

{11} Rebinding – in preparation for subsequent pool retting.

[12a] Pond (or: pool, pit) retting (or: steeping, watering). In this process, bacteria such as Clostridium butyricum and/or Clostridium pectinovorum which are naturally present in the environment multiply and create a culture, in turn producing the enzyme pectinase which dissolves the naturally-occurring pectin present in the flax stalks and has glued the fibers together. Only after this procedure, can the further processing of the flax

49. Safrai 1994, 289 calculates the respective mass of each method’s maximum load while transporting wheat. Figures for flax (at different stages of production) may be different due to its reduced specific gravity (especially retted and dried flax straw). Porter – 42.7 liters (= 32 kg). Donkey – 128 liters (= 96 kg). Camel – 256 liters (= 192 kg). Safrai 1995, 190 comments that commerce between the small villages was enabled by transporting goods via camel-train or donkey-train. In this paper, we will quote Talmudic passages which mention the transport of flax (at some stage of production) by porter, by donkey and/or by camel.
50. The above methods of overland transport are all mentioned in Talmudic literature. See: Sperber 1976, 113-114, 123-125, and 133-136: Re transport of goods by boat to and from Egypt. Flax and linen in various stages of production were exported and imported between the Land of Israel and Egypt. The commerce and transport of flax-line via inland waterways (The Sea of Galilee, The Dead Sea, or The Jordan River) and the coastal seaways of the Mediterranean (between locales in the Land of Israel, e.g. Jaffa and Caesarea Maritima or Acre, or to and from Asia Minor, the Aegean Sea, and Rome) and the Red Sea require additional research.
51. DeWilde 1999, 82-86.
52. See Georgacas 1959, 259: ξελινίζω “beat the dry flax so that its seeds fall away”. DeWilde 1999, 86-94.
53. Warden 1967, 18: “If good seed is required for future sowing, a little of the flax should be allowed to remain after the bulk of the crop is pulled, that it may ripen fully, and yield seed with the germinating principle really in it.” Carter 1920, 19: Preservation of the seeds for future sowing may be unimportant. Feliks 1968, 282, and Feliks 2005, 262: Flax seeds were used for food, but since this use requires later pulling - after the seeds have ripened - it damages the crop which is primarily intended for its fine fibers, it was therefore discouraged. Flax seed oil for consumption as food and use in oil lamps was used in Asia Minor during this period, but is not mentioned in Talmudic literature – NBY. See: Ertuğ 2000, 171-185.
54. Weindling 1947, 238 suggests that rippling is done if the straw is green and crushing if the straw is dry. If the green seed bolls are rippled, they will have to be dried and subsequently threshed.
55. Carter 1920, 28: Flax straw is carted to the retting dam.
57. Pliny Book 19, Chapter 3: “…the actual stalks of the flax are plunged in water that has been left to get warm in the sun, and a weight is put on them to press them down, as flax floats very readily. The outer coat becoming looser is a sign that they are completely soaked, and they are again dried in the sun, turned head downwards as before…” . Theodosius (NVal 13-1) mentions municipally operated flax steeping in Numidia (Tunisia).
be done. Removal of the flax straw from the retting liquor must be done at the proper time, by an expert. Early removal, while the flax is still under-retted, will render fiber separation impossible. Second-retting can rectify this situation, but is obviously time and money-consuming. Late removal from retting will cause the fibers themselves to be damaged (a state which is irreversible) by the enzyme and unfit for further use. The retting process is malodorous, and the acidic effluent may leach into adjacent soil thus causing damage to crops. (Retter)

[12b1] Drawing (or pulling out) of the retting pond, and transport to the drying area.

[12b2] Ringing out the excess retting fluid, to expedite drying.

[12c] Dew (or field) retting. In this process, fungi such as Alternaria alternate or Alternaria linicola reproduce in warm and moist conditions, and disintegrate the pectin of the flax straw, enabling subsequent fiber separation. This method is suitable in some European and Russian climates and in widely used in modern production, in place of pond-retting. Egypt and the Land of Israel are both unsuitable for this manner of retting, due to their respective hot and arid climates, which deter fungus growth, adjacent to the season of flax pulling.

{13} Drying (or: grassing, spreading) and gaiting (erecting ‘chapels’, and subsequent rebinding). Drying is essential after pool retting, before subsequent processes of fiber separation.

{14} Transport – to (and from) the scutching mill. In antiquity, this was executed by porter, camel or donkey. This procedure is possible, not mandatory, for scutching may have been done adjacent to the retting pool. (Porter, Cameleer, Donkey driver)

{15} Commerce – of retted and dried flax straw. Again, this procedure is possible, not mandatory, as subsequent fiber processing may be done by the retter himself. (Trader, Merchant)

{16} Breaking (or ‘braking’) – preliminary separating of the flax fibers by breaking up the woody parts of the stalks, using a mallet or similar implement. (Braker)

[17a] Roughing – combing or hackling by hand to remove woody impurities and short fibers and to square them on the root end thereby producing a piece of flax which could be gripped by the hacklers with improved yields as result. Apparently, this terminology and separate procedure were traditionally used only in Northern Ireland, and in other regions would be included in scutching. (Rougher)

[17b] Scutching – scraping, batting, shaking and/or flailing the flax fibers to begin their alignment and remove remaining woody impurities and short fibers. The product of this procedure is “scutched line” (long fibers) and the by-products produced are “scutched (coarse) tow” and coarse shives. (Scutcher)

{18} Hackling – combing the scutched flax fibers in series of ‘hackles’ (combs) with increasingly compact tines, to remove the remaining short fibers and shives, and to straighten them in preparation for spinning. The product of this procedure is ‘hackled line’ (long fibers), and the by-products are ‘hackled (fine) tow’, and fine shives. In modern industry, the hackled line is converted into continuous ribbons – ‘sliver’, and subsequently given a slight twist – ‘roving’, in preparation for spinning. (Hackler)

{19} Transport – to the spinning mill. (Porter, Cameleer, Donkey driver) An optional procedure. In antiquity, it is possible that most or all of the intermediate stages of production were done in the same vicinity, by the farmer and his laborers.

60. DeWilde 1999, 133, 136, and 140.
63. Pliny Book 19, Chapter 3: “…afterwards when thoroughly dry they are pounded on a stone with a tow-hammer.” DeWilde 1999, 151-161.
65. DeWilde 1999, 162-188.
6. Flax and Linen Terminology in Talmudic Literature

(20) Commerce – line, tow, and shives.67 Commerce at this stage is optional, as above. (Trader, Merchant)

(21) Spinning. In antiquity, as today, flax was often wet-spun, utilizing water or saliva to soften the fibers. This will produce a finer quality yarn, and in turn finer cloth. In modern industry; ‘line’ (long fiber) is spun wet, 68 dry or semi-wet; and ‘tow’ (short fiber) is usually spun dry. Plying (or: ‘doubling’) may also be done wet for certain applications.69 (Spinner)

(22) Transport – as above, to the weaver. (Porter, Cameleer, Donkey driver)

(23) Commerce – in spun yarn.70 (Trader, Merchant)

(24) Weaving71 (Weaver)

(25) Boiling (and bleaching) – may be done at different stages of production: hackled fiber (in modern industry – sliver or roving72), spun yarn, or as a post-loom process to woven cloth.73 Boiling, which is an integral part of some historical and modern production processes - and is often integrated with bleaching,74 softens the fiber and further dissolves remaining impurities such as pectin and wax, and thus enables a finer yarn to be spun, When performed after weaving, this improves the handle of the woven cloth.75 (Bleacher, Boiler)

(25a) Beetling76 – woven cloth may be (wetted and subsequently) beaten with a mallet or similar implement, in order to provide it with a smoother tactile surface and visual sheen. Pliny the Elder mentions that, in antiquity, this was also done to yarn. In the modern era, this is considered a procedure characteristic to Northern Ireland.77 (Beetler)

(25b) Polishing – rubbing with a glass, stone or bone implement to give smoothness and sheen to the cloth. Initially this may be performed after weaving and subsequently after each laundering. In the medieval period this was practiced in Western Europe, and in the early-modern era, is considered a characteristically Scandinavian procedure.78

(26) Transport of woven cloth.79 (Porter, Cameleer, Donkey driver)

(27) Commerce of woven cloth. (Trader, Merchant)

(28) Rope, cord and twine manufacture – by two possible different methods: ‘laying’ (or: ‘twisting’)80 or ‘plaiting’ (or: ‘braiding’).

(29) Production of other end products – nets, garments, and various textile applications.

(30) Laundering and post-laundry treatment of linen textiles.

Linguistic and etymological fundamentals

This paper focuses on the Hebrew and Aramaic language flax production terminology in Talmudic literature. Nevertheless, the language of the Hebrew Bible is a predecessor dialect, and will be presented herein. Standard Biblical Hebrew (SBH) is the stratum of

67. Curchin 1985, 35 quotes Diokletian 32.26 that “raw flax was purchased in bundles”, but this partial text offered by Graser 1959, 416, is omitted by Lauffer 1971. DeWilde 1999, 200-201.

68. Carter 1919, 213-239.

69. Sándor Nagy, managing director, Hungaro-Len spinning mill, personal correspondence. In addition, fine linen spun threads may be cold-water polished. Plied linen twines may be hot-water polished with added starch.


71. Wild 1967, 656 mentions “linyphi” – the linen-weavers of Scythopolis, as liable to the state levy (publico canoni obnoxii).


76. Pliny book 19, Chapter 3: “…Then it (the fiber) is polished in the thread a second time, after being soaked in water and repeatedly beaten out against a stone, and it is woven into a fabric and then again beaten with clubs, as it is always better for rough treatment.”


79. Theodosian Code 8.5.48: “(Coarse) linen and cloaks… shall no longer be dispatched by carriages but by (express) postwagons or boats… But the other delicate garments and the (fine) linen for cloaks… shall be sent by (express) carriages… The additions in parentheses are after Wild 1967, 662. Forbes 1956, 43 mentions that in Ancient Egypt flax was transported in bundles or bales.

language used in the relatively early books of the Hebrew Bible, prior to the Babylonian exile, and often embodies Egyptian loanwords. Late Biblical Hebrew (LBH) is used in relatively late books of the Hebrew Bible, during and after the Babylonian exile, and is increasingly influenced by Aramaic. In these two linguistic strata, there are several different terms referring to flax-linen.

SBH terminology of flax-linen

Bāḏ

Etym: Of unknown etymology.

Selected HB pericopes:

He shall be dressed in a sacral bāḏ tunic, with bāḏ breeches next to his flesh, and be girt with a bāḏ sash, and he shall wear a bāḏ turban… (Leviticus 16:4)

Samuel was engaged in the service of the Lord as an attendant, girded with a bāḏ ephod. (I Samuel 2:18)

One said to the man clothed in bādīm, who was above the water of the river… (Daniel 12:6)

It is currently impossible to discern the textile differentiation between this and the term šeš, both of which have the identical LBH (and Targumic) parallel – būṣ (infra).

Kūtōnet > Kūtōnōth. Construct state: Ktōnet > Kōtnōt

Etym: This term originates from the Akkadian kītu, kītītu, kītīntu – linen, flax, or linen garment; and the Aramaic kītan. It subsequently became the Greek χιτών, and later the Latin tunic – after metathesis. It is the name of a garment, originally made of linen, but later on became a generic name for a shirt-like tunic made of any textile material. Sometimes a modifier is used to specifically indicate a linen garment.

Selected HB pericopes:

And the Lord God made skin kōtnōt for Adam and his wife, and clothed them. (Genesis 3:21)

You shall make the fringed kōtōnet šeš… (Exodus 28:39)

He shall be dressed in a sacral kōtōnet bāḏ… (Leviticus 16:4)

Nōōret – flax tow. Short fibers, often with remnants of shives, usually of lesser value.

82. Bāḏ is a homonym in HB with four meanings: 1) linen cloth, 2) a branch or pole, 3) a part or portion, 4) a lie, boasting. Apparently there is no connection between them. Nevertheless, Murtonen 1990, 105 suggests that all shades of meaning are derived from the basic notion of separation, and the word for fine linen fits that pattern on the assumption that it originally referred to a piece of linen.
84. TO (Pentateuch), TY (Prophets) both consistently translate bāḏ as būṣ, or the determined būṣā. The term bāḏ is not used independently in Talmudic literature, excluding Biblical quotes and their respective Talmudic discussions.
85. LXX, VUL, KJV, NIV: linen. RVR: lino. LUT: leinenen.
86. Masculine plural form
89. HALOT Vol. 2, 505
90. Presumably, all of the Kūtōnōth mentioned in priestly vestments’ context (Exodus, Leviticus, Ezra, and Nehemiah) are made of linen. Additional Kūtōnōth, mentioned in Genesis, Exodus, and II Samuel may not be linen. Ezekiel Ch. 44 describes these priestly vestments using the term bīg̱ dei pīštīm, and does not use the term “kūtōnet”. Ezekiel also uses the alternative terms: Šeš (16:10, 16:13, 27:7) and Būṣ (27:16) albeit in other contexts.
91. The Aramaic Targums - Onqelos, Neofiti and Pseudo-Yonaṭ - of the Pentateuch consistently translate this term using the respective parallel Aramaic forms e.g. Kūtnā, Kūtnīn, Kōtnān, etc.
92. TY consistently translates this term kītānā. Nōōret (and its Aramaic parallel dāqtā) appear in Talmudic literature in several contexts (infra).
93. The production of hemp and jute fibers also creates tow. These textile materials are not present in HB Sitz im Leben. The contexts of hemp in Talmudic literature infer to its production process being similar to that of flax.
6. Flax and Linen Terminology in Talmudic Literature

Etym:94 Something which is shaken out or shaken off, as is done in scutching and hackling.95

HB pericopes:
… Whereat he pulled the tendons apart, as a strand of n*ōret comes apart at the touch of fire…96 (Judges 16:9)
Stored wealth shall become as n*ōret, and he who amassed it a spark; and the two shall burn together, with none to quench. (Isaiah 1:31)

Pištā
Eytm: This is the basic consonantal form of a Semitic term, a primary noun.97 It is found in the non-vocalized Gezer Calendar from 10th century BCE.98 Its vocalized variants are as follows:

a) Pešet – “flax”. In HB, found only in Hosea. This is a dialectic variation, possibly of Phoenician influence.99
… I will go after my lovers, who supply my bread and my water, my wool and pištā,100 my oil and my drink. (Hosea 2:7)

b) Pištā
1) A collective, comprehensive designation – “all of the flax”, or “flax in the field”.101

Now the pištā and the barley were ruined, for the barley was in the ear and the pištā was in bud.102 (Exodus 9:31)
2) Nomen unitatus – i.e. a single example of a class – “a flax fiber”, “a flax plant”.103
… they lay down to rise no more, they were extinguished, quenched like pištā.104 (Isaiah 42:17)

c) Pištīm – linen. This morphological plural-like form indicates a natural/raw product when represented in a manufactured condition.105

Selected HB pericopes:
The cloth, whether warp or woof, in wool or pištīm, or any article of leather in which the affection is found, shall be burned…106 (Leviticus 13:52)
… Go buy yourself a loincloth of pištīm, and put it around your loins…107 (Jeremiah 13:1)
They shall have pištīm turbans on their heads and pištīm breeches on their loins…108 (Ezekiel 44:18)

95. A probable BT synonym, and certain Syriac synonym – “sᵊrāqtˀā” – indicates “something which has been combed out”. DJBA 833, ASR 1051.
96. Cf. Judges 15:14 for similar phrasing, albeit the text uses the term pištīm and TY translates kitānā.
97. HALOT, 983.
100. “… my flax”. With suffixed possessive pronoun – first person. Also Ibid. verse 11. TY translates both as būṣ.
102. TO translates kitānā.
103. Kautsch ibid. HALOT ibid.
104. JPS translates “a wick”. Also Ibid. 42:3. TY translates both occurrences būṣīn (plural form).
106. TO consistently translates pištīm as kitān or the determined kitānā.
107. TY translates pištīm as kitān (or the determined kitānā) or būṣ. In contrast to TO’s translation consistency, i.e. pištīm = kitān. We have not found the key to resolve which translation was chosen by TY for each specific context.
108. LXX, VUL, KFV, NIV: linen. RVR: lino. LUT: leinenen. Examination of the Aramaic Targums to the HB indicates that šeš, bāḏ, būṣ, and pištīm (and kitān) are interchangeable terms, thus casting doubt upon English translations of “fine linen” or “white linen’ vs. (plain) “linen” in various contexts. The Aramaic Targums’ collective advantage over other translations is their continuous diachronic tradition of Biblical Hebrew.
Šeš\textsuperscript{109} 
Etym: An Egyptian loanword – šš with the clothing determinative.\textsuperscript{110} 
Selected HB pericopes:
… Pharaoh put it on Joseph’s hand; and he had
him dressed in robes of šeš\textsuperscript{111}… (Genesis 41:42)
You shall make the fringed tunic of šeš. You shall
make the headdress of šeš.\textsuperscript{112} (Exodus 28:39)
… Her clothing is šeš and royal-purple. (Proverbs 31:22)

L BH terminology

Būṣ – The LBH parallel to Šeš and Bāḏ.\textsuperscript{113} 
Etym: “The distribution pattern of the Akkadian buṣu

\textsuperscript{109} Šeš appears only once independently (not as an explanation of a Biblical text) in Talmudic literature. Tosefta Tractate Mnahot 9:17, in context of the raw materials used to produce articles required for use in the Temple. This subchapter states that “šes” (sic) – required for priestly vestments – is pištān (flax), and if they are produced from qanabūs (hemp), they are unfit (and therefore forbidden) for use. I am not aware of an explanation for the use of this term there. Qanabūs is familiar to the Mishnah (Tractates Kilayim 9:1 and Ngāim 11:2) as a textile fiber similar to flax.

\textsuperscript{110} Lambdin 1953, 155. Murtonen 1990, 439. Kadari 2006, 1150. Gesenius 1987, 1534. HALOT, 1663 entry III: “Homonymous with the Egyptian loanword for limestone alabaster. Both share the same property in that they are dazzling white.” Loanwords may change from their exact original meaning in transition from the donor language to the recipient language. Therefore, šeš in HB may not necessarily be “dazzling white”. Actually, the color white is not mentioned in context with garments anywhere in the HB, as it is in other contexts, e.g. “teeth” (Genesis 49:15), “manna” (Exodus 16:31), skin and hair affections (Leviticus 13 passim). Notably, Mishna Yoma chapters 3 and 7, indeed describes the high-priest’s vestments used on the Day of Atonement as being white, in contrast to his daily vestments which are multi-colored. Rabbinic literature does not define the degree of whiteness of these garments, as it does regarding affections of the skin. (Mishna Ngāim Ch. 1, 1.)

\textsuperscript{111} TO (Pentateuch), TY (Prophets), and the Targum of Proverbs – all consistently translate šeš as būṣ, or the determined būṣa.

\textsuperscript{112} LXX, Vul, KJV, NIV: fine linen. RVR: lino. LUT: weißer Leinwand.

\textsuperscript{113} Hurvitz 2014, 50. TO (Pentateuch) and TY (Prophets) – all consistently translate šeš and bāḏ (in their textile contexts) as būṣ, or the determined būṣā.

\textsuperscript{114} Hurvitz Ibid.


\textsuperscript{116} This term is used in Talmudic literature rarely, and in only three specific contexts: 1) The white vestments of the High Priest, worn during his parts of his service in the Jerusalem Temple on the Day of Atonement, (Mishna Yoma Chapter 3, subchapters 4 and 6, and parallels in Sīfrā and the Talmuds), 2) The curtain or screen (sāḏīn) used in the Temple on that same day to conceal the High Priest while he is doffing and donning his vestments. (Ibid. Chapter 7, subchapter 1, and 3) A curtain used in the Temple to conceal the procedure in which a woman suspect of adultery (“sōṭā”) has her head bared. (Numbers 5:18, Sīfrei BaMīdbār chapter 11) This philological phenomenon may be explained thus, that both the Yoma and Sōṭā respective ceremonies’ descriptions are relatively ancient literary works – from the second Temple period – in relation to most other content in Talmudic literature (Mlemed 1973, 61-62). Therefore, ancient second Temple biblical terminology was selected, instead of the regular Mishnaic pištān. A hapax is the Nomina agentis used in Geonic literature – būṣa’ei infra.

\textsuperscript{117} Parallel to Genesis 41:42 supra.

\textsuperscript{118} A guild, factory or workshop. Densky 1966, 213-214

\textsuperscript{119} Parallel to Leviticus 16:4 supra. LXX: linen. Vul, NIV: fine linen. KJV: white linen. RVR: lino fino. LUT: feiner Leinwand. We have commented (supra) on this usage.
6. Flax and Linen Terminology in Talmudic Literature

Talmudic terminology

The evolutionary process of the regular Rabbinical Hebrew term for flax-linen pīštān – is as follows. The HB term pīštā was adopted as the basis, and subsequently the final character “nun” was added to close the ultimate open syllable. This is a familiar linguistic-phonetic phenomenon in later Hebrew dialects. Following are several similar examples:

Pīštā (Exodus 9:31) ▶ Pīštān (RH passim)  
Y’hūḏā (Genesis 29:35, passim) ▶ Yūdān (RH passim)  
Kaisāreia (Greek) ▶ Qesārī (RH passim)  
Sepphoris (Greek) ▶ Ṣīpōrī (RH passim)  
M’giddō (Joshua 12:21, passim) ▶ M’giddōn (Zekhariah [LBH] 12:11)  
Aṛμαγεδόν (LXX NT Revelations 16:16) ▶ Armageddon (KJV ibid.)  
Šᵊlōmō (II Samuel 12:24, passim) ▶ Šlemun (Syriac) ▶ Σαλωμών (LXX passim) ▶ Solomon (KJV passim)

Unfortunately, the HB differentiation between flax and linen is lost in Mishnaic Hebrew. Pīštān, as well as kītān in Aramaic, indicate both flax and linen, and therefore require a suitable interpretation in each context.

Modern languages vary in this same aspect:

Some differentiate:
- English: Flax – Linen
- Hungarian: Len – Vászon
- Swedish: Lin – Linne
- German: Flachs – Leinen
- Dutch: Vlas – Linnen

Others do not differentiate:
- Spanish: Lino
- Russian: “лён” - in transcription [le’n]

In the continuation of this linguistic process, the noun pīštān may become adjectival by nisba form, i.e. the addition of the suffix “-ī”, hence “pīštānī” – flaxen, or “related to flax”. By addition of “man”, in Hebrew – “ŪĪS”, “ŪĪS pīštānī” = “a man dealing with flax”. With nominalization, ”ūĪS” is omitted, and “pīštānī” retained, now forming an occupational name (Nomina agentis). The occupational name does not indicate what specific activity is done, e.g. flax-farmer, flax-worker, flax-producer, flax-trader or flax-transporter – only “flaxman” or “flaxist”, quite similar to the Spanish “linero”. Again, additional information must be gleaned from textual context, and may be translated using periphrasis. The Aramaic parallel to pīštānī is kītānāi. There are additional forms of occupational names in Hebrew, e.g. qāṭṭāl, qāṭlan, qaṭōl, and the use of the participle - qōṭel. All have applications in our context.

Glossary of Talmudic flax-linen terminology

The terms are arranged in accordance with the stages in the chaîne opératoire with which they are affiliated. When a number of possible affiliations are applicable, such will be indicated.

Selected quotes from rabbinic literature will be cited.

Procedures

Entries are presented alphabetically, in Semitic triconsonantal verbal root form.
We do not find in Talmudic literature specific occupational names: “linen weaver” (or “wool weaver”) as in Greek λινοπλόκος or λινουργός. Nevertheless, two foreign-originated terms for weavers are fairly common in Talmudic literature: Ṭarsi (a weaver originally from Tarsus?) [DJPA 231] and Gardi (from the Greek γερδιός) [DJPA 135. DJBA 283, 299]. Further research is required to assess if, in Talmudic literature, either term indicates one who weaves linen. See: Blackwell 1974, 359. Rosenfeld & Meironav 1999. Wild 1969.


Here serving as an active participle.

129. Cf. “There is an art of combing out and separating flax: it is a fair amount for fifteen ... to be carried out from fifty pounds’ weight of bundles; and spinning flax is a respectable occupation even for men. Then it is polished in the thread a second time, after being soaked in water and repeatedly beaten out against a stone, and it is woven into a fabric and then again beaten with clubs, as it is always better for rough treatment.” (Pliny’s Natural History, Book XIX, Chapter III)

130. For various types of nets, see: Denton & Daniels 2002, 233. These were probably knotted nets, which are suitable for trapping animals. See: Davidson 2012, 6.


132. Rashi BT Kᵊṯūbōṯ 10b (s.v. gīhūṣ) identifies this as: “lischier – with a glass stone” (Catane 1996, 92). There is currently no firm evidence that this procedure was actually practiced in the Land of Israel or Babylonia during the Talmudic period.
In the Land of Israel one should purchase— for his wife, as a festival gift— (“mґōhāši”) pressed linen garments.” (BT Pסḥaem 109a). “Linen garments are not restricted from (“gїhї”) being pressed adjacent to the fast of Ab” (BT Tאָאָנֶּה 29b).

hbl (Hb). To steam, in order to soften and/or bleach flax. “…It is forbidden to place (“ǔn`) [moistened and] hackled flax fibers138 into the oven on Friday, unless they (“yїhїʔї”) steam before (the entrance of Šabbath in) the evening…” (25)

kbr | lbn

kbš (Hb, Ar). To press139(28) [See: M TObject infra] “On the Sabbath, it is permitted to open (or “release”) a homeowner’s press, but not to begin (“kїbїʔї”) pressing. A professional fuller’s press may not be touched.” (Mishna Šabbath 20:5) DJBA, 551. DJPA, 249.

kbs (Hb). To launder.140 “Linen garments are permitted (“kЇbїsїn`) to be laundered during the intermediate days141 of the Festival”. (BT M📊ֹג Qαţαn 18a)(28)

kss ► ksk142 (Hb, Ar). To rub or knead (with the fingers) a linen garment after laundering, in order to soften and whiten it. (28) “Is it permitted to (“kїsїkїsїeї”) rub a (“kїtїnїtї”) linen tunic on the Sabbath? …If one’s intention is to soften it, then it is permitted. But if the intention is to whiten it, then it is prohibited.” (BT Šabbath 140a) DJBA 592.

ktš ↑ dqq

lnb (Hb) ± kbr (Ar). To bleach, literally “to whiten” (“kbr” = with sulfur). “Hackled flax fibers (become susceptible to halakhic impurity) only after they have been (“mїsїʔїlїbїʔї”) bleached.” (Mishna Nגїʔїm 11:8) “…dїkїbїrїeї қїbїrїyїeї…” They have certainly been (sulfured) bleached. (BT Bїhї Qαmї 93b) DJBA 551.143(25)

mhy ↑ ˀrg

mzr (Hb, Ar). To spin yarn.144 “One who has had a fit of jealousy and is wrought up about his wife, that she has ‘secretly gone astray’144 must divorce her and remit the kїtїbї145 only if this has been gossiped about by the women (“mїzїʔї”) whom are spinning by moonlight.”(Mishna Sїtї 6:1). In JT Sїtї 20d it is offered that the following are variant readings of this verbal root. DJPA 311, 326, 543. (Cf. “Mїmїzї”) infra)

→ mṣr146 (Hb, Ar). To spin wool yarn. “One who reads “mїzїʔї” – understands the text to indicate ‘spinners (f.pl.) (“mїsїʔї”) of wool.”” (JT ibid.)

138. Or spun yarn. See:  bgcolor infra.

139. Further research is required to determine to what extent linen garments were pressed in this fashion, in comparison to wool. Flohr 2013, 116-117. 145-148 describes this process and its respective apparatus in detail. The “homeowner’s press” is not mentioned.

140. Flohr 2013, 63-64 leans toward the position that linen garments were not usually laundered by a professional fullo.

141. This may refer to either the Festival of Unleavened Bread, of the Festival of Booths. Generally speaking, laundering (among other secular and time-consuming activities which should be performed before the festival) is prohibited during this period, in order to both ensure that the entry to the festival will be with an honorable appearance, and to preserve free time to rejoice. Several explanations have been offered regarding this specific permit: 1) Linen garments soil quickly even if they were (as required) laundered immediately before the festival. (Linen garments were as a rule white – in contrast to woolens which were dyed - so that soiling was quite noticeable, and considered dishonorable particularly during a festival – NBY.) 2) Laundering linen garments is relatively easy and not very bothersome. (In contrast with laundering and fulling wool garments, which is both difficult and time-consuming – NBY.)

142. Originally from a biconsonantal root - just two root letters (ks), which subsequently became a triconsonantal or quadtriconsonantal root by either gaminating the last letter (ks) or reduplicating both root letters (ksks).

143. Sokoloff assigns this to linen, notwithstanding the local context of wool.

144. Translation of Numbers 5:13-24 - after JPS.

145. Marital monetary compensation obligated by rabbinical law.

146. The second radical shifts from “z” to the phonetically similar “ṣ”.
The relationship between the verbal roots √mzr and √šzr may be based upon the Akkadian biconsonantal verb ‘zâru’ – to twist, (CAD z 72) and adjective ‘zēru’ – braided, plaited. (CAD z 89).

Perhaps this is also a hapax nomen agentis: nppṣ (Hb) ≈ nāppṣˀā (Ar) (BT Yᵊḇāmōṯ 118b).

This is a rare usage of pqˁ (3 or 4 times in Talmudic literature), as opposed to other, more frequent meanings: “to rend (tear), to unravel, to break, to confiscate, etc.” – all destructive. In this instance, the meaning is converse - constructive, i.e. “to build or manufacture (rope).” This is an example of one verbal root which expresses both a meaning and its opposite meaning. The other sources for this meaning are: JT Sūkkā 55g, Bereshit Raba 68:12. The consonant shift from “p” to “b” is (alternation of voiced and non-voiced counterparts) is common.

Cf. ḫeḇel.

The only other occurrence is in this same tractate 4:11.

Cf. Wipszycka 1965, 23: “The artisans boiled flax (hacked fiber), in large vases of clay or metal in water containing oil and sodium carbonate (Na2Co3) which formed a kind of soapy substance… Finally, they would sponge (wring out) and wash the flax, wrapping the tangles around poles and exposing them to the sun decomposed coloring and fats.” I have not found any parallel to this description – NBY. See also Liebermann 1939, Part IV, P. 68, footnote 32 at end.

This festival falls in March-April, adjacent to the season of flax pulling in the Land of Israel. Retting is done as soon as possible after pulling the dry straw. In addition, the warm temperatures at this time are suitable to support the necessary bacterial culture for retting. The other festival which has intermediate days is the Festival of Booths, which falls in September-October, months after pulling flax, and the temperatures are too cool to support the bacterial culture. Labor is permitted during the intermediate days of a festival, in order to prevent monetary loss. In this case, flax which is not pulled out of the water at the correct time will be over-retted and therefore almost worthless. The exact time of pulling is difficult to plan, as it depends on climatic and other natural conditions.
srq (Hb, Ar). To comb, hackle, or ripple flax. “(The wadi where the calf’s neck has been broken) may not be sown nor tilled, but it is permitted to (‘lišrōq’) comb there flax.” [10b], {18} DJPA 339. DJBA 832 2#. See: Sereq infra.

šry156 (Hb) ± try (Ar). To steep (ret) flax in water. “It is prohibited to bring flax straw from outside of the country (Land of Israel) and (‘šōrīn’) ret it in the country.” (Tosefta ʾŠᵊḇīˁīṯ 4:19). “After he saw that they were using it (the water drawn out by a “water wheel” on the Sabbath) for (‘tārū’) retting flax, he forbade it.” (BT ʿerūḇīn 104b).[12a] DJPA 591. DJBA 1233 2#.

šzr ↑ mzr

tlš (Hb) ± ʾqr (Hb, Ar). To pull(-up), uproot. Flax is not harvested as grains are with a scythe, the entire plant is pulled up for cutting is difficult due to the fibrous stem, and in order to gain the fibers in their entirety. {5} “Rav Yehuda permitted to pull up (‘lᵊmēˁāqer’) flax… during the intermediate days of the Festival of Unleaved Bread.”158 (BT Mōˁeḏ Qātān12b). “One who purchases a crop of flax from a fellow man … if the flax is still rooted in the ground, and he (‘tālāš’) pulled-up any amount, this is considered a purchase (of the entire crop).” (Mishna Bāḇā Bāṯrā 5:7) DJPA 416, 583. DJBA 877, 1211.

try ↑ šry

twy (Hb/Ar) ± ʾzl ≠ ʾzl, šdy (Ar). To spin flax (or wool) yarn.159 “As one (f.) who lifts her left arm to spin flax…” (Mishna Nᵊgāˁīm 2:4). “Flax which was spun by a woman during her menstrual period… if it was (still) damp, one who moves it is rendered halakhically impure.” (Tosefta Tāḥōrōṯ 4:11). “He saw Orpah Ishbi’s mother, and she is (“ʾāzlā”) spinning flax…” (Midrash Tehilim 18:30). {21} DJPA 102, 496, 849-850. DJPA 322, 401.

zr (Hb) ± šdy (Ar). To sow. “One who leases a field from another for only a few years is prohibited to (‘yīzrāˁenā) sow flax…” (Mishna Bāḇā Mᵊṣīˁā 9:9). “I go and (‘šāḏenā’) sow flax and make nets…” (BT Mōḇāḇa Mᵊṣīˁā 84b). “Raḇ saw a man that was (‘šāḏeh’) sowing flax on (the holiday of) Pūrīm…” (BT Mᵊgīllā 5b).{2} DJPA 1111.13.

Workplaces

Bei Kitānā (Ar). An area (where an unspecified activity is performed) of flax. “A bill of divorce
was found in “an area of flax” in Pumbedita…” (BT Gitin 27a, BT Baha M’shia 18b). DJBA 199, 208 #1, 6.

→ Ḥaḵa ḏṭarū ḏṭiṭa (Ar). A place where flax is steeped. (See: ʿtryv supra, Miṣrā infra). “…some say that it was an area in which (ʿheḵa ḏṭarū ḏṭiṭa)” in which flax is retted, and convoys (passersby) are not present… (Ibid.). [12a]

→ Ḥaḵa ḏṭmzabnei ḏṭiṭa (Ar). A place where flax is sold.”…”some say that it was an area in which (“ḥaḵa ḏṭmzabnei ḏṭiṭa”) is sold…and convoys (passersby) are present…” (Ibid.). (9), (15), (20), (23), and/or (27).

Ḥanwaṭā (Ar f. pl.). Stores, workshops, or guild offices.163 “At the (“ḥanwaṭā”) workshops of (“kīṭaṇa”) flaxmen there was a meeting …” (JT Peṭa 16a, Leiden codex). DJPA 208, 460. DJBA 473, 967 #2.164

Miṣrā (Hb). A rettery165 - place of steeping (retting) flax. “One may draw out his flax from the (“miṣrā”) rettery (during the intermediate days of the Festival of Unleavened Bread) in order to prevent it from being damaged …”.166 (Mishna Mōeḏ Qāṭān 2:3). [12a]

Tools and implements

ʿor (HB). A hide (leather) apron. See: Kāṭan infra, and various uses for an apron in flax manufacture.

Koš ha-ʾArbeli (Hb). A spindle167 that was probably used in the town Arbel168 for spinning relatively coarse flax. The whorl of this spindle is more firmly attached to the shaft than a regular flax spindle. “Koš ha-ʾArbelî – its parts are considered fastened together for applications of susceptibility to halakhic impurity, and the sprinkling of the ’water of lustration’…” (Tosefta Pārā 12:16){21}

Koš šel pīṣṭān (Hb). A spindle used especially for spinning regular flax (in contrast to one designated to use for rope or for coarse flax). The whorl is relatively loosely attached; therefore each part should be sprayed separately. Nevertheless, if it happened that one part has been sprayed (while the implement is assembled), the entire spindle has still been purified. (Tosefta Pārā supra, Mishna Pārā 12:8 and Maimonides commentary ad. loc.){21}

163. See: I Chronicles 4:21 ”families of flax/linen-workers” – guild, factory or workshop. After Densky 1966, 213-214. See also: Theodosian Code 10-20-6 “… guild of imperial weavers, either a linen weaver or a linen worker …” Ibid.10-20-8 “…the store or shop is synonymous with the workshop.” Kasper 1979, 311,313 and 1985, 352-353 describes Jewish textile guilds in the Land of Israel. Retzleff & Mjely 2004, 40 report that a section of the 3rd century AD odeum of Gerasa Trans-Jordan (50 km east from Beth Shean) was designated by inscription: “The place of the linen-workers”. This was most likely the section in which guild members were seated.

164. From available literary context, it is impossible to determine exactly which activities of the chaîne opératoire usually took place there.


166. Safrai & Lin 1988, 129-162, 171, 178-180. Ancient facilities which have been tentatively identified as a rettery have been discovered in Kibbutz Geva.

167. Koš literally means shaft, spindle or stick. In this context it probably indicates the entire spindle, including whorl, stick and possibly hook.

168. Leibner 2009, 257-258. Cf. Bereshit Rabba 19:1 “Garments (or textile products) of linen made in Arbel – what is their worth? What is their price?”. This is in contrast to the linen products produced in Beth Shean (Sicythopolis) – the center of production of fine linen in the Land of Israel, which are “very fine and therefore ignite (or become soiled by ashes) easily”. These products are alluded to in Bereshit Rabba 32:3, Codex Vatican 30. See: Ṿkt and Ṿnk. Dioctelian consistently ranks Sicythopolis-produced linen garments as the highest quality and consequently most expensive. XXVI 13-63, 78-134. XXVII 8-22, 16-30. Lauffer 1971, 168-177. In accordance, “Expositio totius mundi et gentium” (c. 459 AD) ranks Sicythopolis as the source of finest quality linen clothes. Stern 1974-1984, 497. Possible reasons for the production of inferior linen products in Arbel have been presented in Ben-Yehuda N. 2011. “The Mysterious Flax Industry of Arbel” (unpublished, in Hebrew).

169. HB Numbers 19:3 “A man who is clean shall gather up the ashes of the cow and deposit them outside the camp in a clean place, to be kept for water of lustration for the Israelite community. It is for cleansing.”
Māʻārōḵā (Hb ~ Ar). A pestle, or rolling pin used for crushing seed pods or braking flax straw.170 “That flaxman … when using a (“māʻārōḵā”) pestle (on the Sabbath), is liable for the labor of grinding…” (JT Šābbāṯ 10a). DJPA 323. [10a] {16} See: ktš[v].

Māḡbeš (Hb). A clothing press.171 (See kbš[ۚsupra] (28)

Māsreq šel pīštān (Hb). A comb, hackle or ripple for flax (in contrast to that used for wool).172 “A (“māsreq šel pīštān”) comb for flax, if some of its teeth have been broken off, and two remain it is still susceptible to halakhic impurity…” (Mishna Kelīm 13:8). [10b] {18}

Mei Mīṣrā (Hb). The water (or: “liquor”) of the retting process. See: šry[v]. “One whom is reciting (“Qᵊrīˀaṯ Šᵊmāˁ”)…shall not do so while he is immersed in foul-smelling water or (“mei mīṣrā”) retting liquor,174 unless he dilutes them.” (Mishna Bᵊrāḵōṯ 3:5) [12a]

Nāwlā ~ Nāḇāl dᵊkītān 174b (Ar). Loom. “One must not place a loom which being used for wool near a (“nāḇāl dᵊḵītān”) loom which is being used for flax,175 because of the dangling yarns (that may become attached to one another)”. (JT Kīlˀāyīm 32a) {24} DJPA 344. DJPA 735 #1.

Qāsīyā.176 Leather glove(s), worn by a flax worker. See: ˁōsei pīštān infra.

Qōpnā (Ar < κόπανος Gr).177 A mallet178 used for braking flax straw or crushing seed pods. This context does not infer the use of Qōpnā for beetling, although a similar implement may be used for that purpose. “That flaxman who uses a (“qōpnā”) mallet on the Sabbath is liable for the labor of threshing” (JT Šābbāṯ 10a). DJPA 483 (hapax). [10a] {15} (25a) See: dwš[v], dqq[v] v.

Materials and products

Raw materials

Pīštān (Hb) ± Kītān ~ Kītānā (Ar). Flax, linen (Li-num usitatissimum). Passim. DJBA 579. DJPA 257.

Qānābūs (Hb) ± Qīnbā (Ar). Hemp (Cannabis sativa). “…also the (“pīštān”) flax-linen and the (“qānābūs”) hemp, when they are blended together179…” (Mishna Nᵊg̱ āˁīm 11:2, Kīlˀāyīm infra). DJBA 1014.

Ṣemer (Hb) ± ˁāmār ~ ˁāmrā (Ar). Sheep’s wool (Ovis aries). “There is no prohibition of mixed species (in garment context) other than (“ṣemer”) (sheep’s) wool and (“pīštīm”) flax-linen…” (Mishna Kīlˀāyīm 9:1, Nᵊg̱ āˁīm supra) DJBA 870. DJPA 411.

Ṣemer Gefen (Hb) ± ˁāmār Güfnā (Ar). Cotton

170. In Mishna Kelim 15:2 this refers to a baker’s rolling pin.
171. See: Sperber 2014 and Granger-Taylor 1987 for description of this implement and its use. Additional research is required to examine its specific usage for wool and linen garments.
173. This prayer-like recitation consists of passages from the HB, and therefore is considered holy and must be performed in a clean environment.
174. Kozłowski 1992, 252-253. The odor is a result of toxic and acidic gases which are released during water retting.
174b. The w/ḇ labial consonant alternation is a familiar phenomenon in Mishnaic Hebrew due to their similar or identical pronunciation (Steve Kaufman, personal correspondence). Sharvit 2016, 288-291
175. We do not currently have information regarding the exact construction of these looms themselves, and if it varies from a “wool loom” to a “flax loom”.
176. Etymology unknown.
179. The literary context (and current textile science) indicate that these two fibers are similar in appearance and feel, and therefore compatible to be blended together.
Nahum Ben-Yehuda in *Textile Terminologies* (2017)

180. “This proselyte is similar to (“’amrā gūfnā’) ‘grape wool’ (cotton), whether you want to put it with (“īmarā’) wool – that is permitted, or with (“kīṭānā’) flax – that is also permitted…” (JT Qidūšin 64c). DJBA 870. DJPA 411.

**Materials and products (intermediate and final)**

Hōṣen > Hōṣ’nim > Hōṣānei (construct state) ≈ Hōṣen

Hōṣen (Hb/Ar). Stalks of flax, flax straw. “Two (“hōṣānei”) stalks of flax left in the field shall not be retrieved; three or more may be retrieved…” (Mishna Pe’ah 6:5). “If one roofed his festival booth with (“hōṣānei”) flax straw, it is fit for use. However, if that was done with (“ānīṣei”) scutched flax fibers, it is unfit.”

Kīṭānā dāvīd b’tūnei (Ar). A load of flax straw. “A live fowl that fell on a load of flax – there is concern that it has been internally injured, and is subsequently unfit for use as (edible) poultry.” (BT Ḥūlīn 51b). DJBA 508. {7} – {15}

〈Kīṭānā dāvīd bīzrei (Ar). Flax straw that has seed bolls attached – prior to rippling and retting. “A live fowl that fell on flax straw that has seed bolls attached, there is concern that it has been internally injured because of the protrusions, and is subsequently unfit for use as (edible) poultry.” (BT Ḥūlīn 51b). DJBA 195. {5} – {10b}

(Kīṭānā dādāyiq w’llā nṣip (Ar). Flax which has been braked but not scutched. “A live fowl that fell on flax straw that has been braked but not yet scutched, there is concern that it has been internally injured, and is subsequently unfit for use as (edible) poultry.” (BT Ḥūlīn 51b). {16} See: dqq√ npṣ√.

(Kīṭānā dādāyiq w’nṣip (Ar) Flax which has been both braked and scutched. “A live fowl that fell on flax straw that has been both braked and scutched, there is no concern that it has been internally injured, and is subsequently fit for use as (edible) poultry.” (BT Ḥūlīn 51b). {16} – {17b} See: dqq√ npṣ√.

180. Talmudic terminology related to various silks and other minor fibers is not within the scope of the current paper.

181. Arranged according to *chaîne opératoire*.

182. Possibly *ṣ*.

183. Based upon HB Deuteronomy 24:19 “When you reap the harvest in your field and overlook a sheaf in the field, do not turn back to get it; it shall go to the stranger, the fatherless, and the widow…” Flax is considered a food crop in this context, as the (ground) seeds are edible and edible oil can be extracted from them.

184. The regulation is that roofing for the festival booth, must be of non-edible vegetable matter, in its natural state. Flax straw is considered natural, whereas flax fiber is considered a manufactured product, and therefore unsuitable.

185. Rashi *ad loc*. offers an additional interpretation: “The son worked with sheaves of flax and therefore neglected his study of Tora.”

186. Safrai 1994, 194. See also: Lieberman 1967, 290 *ad loc* for a different, albeit unlikely, interpretation.

187. The fowl must be ritually slaughtered before consumption.
6. Flax and Linen Terminology in Talmudic Literature

N̄oɾeṭ188 (Hb) ± Srāqṭā (Ar). Flax tow. “How did they ignite the beacons? They brought long poles of cedar-wood, reeds, pine-wood (“oilwood”) and (“n̄oɾeṭ šel pīštān”) flax tow, which they wrapped with twine…” (Mishna Rōṣ Ḥā-Šānā 2:3). “A fast is effective for dissipating a (bad) dream, just as fire rapidly burns (“n̄oɾeṭ”) tow.” (BT Šabbāt 11a). DJBA 833 (- corrected according to ASL 1051)

→ Gāsā (Hb). Coarse (scutched) tow (probably with shives). “It is permissible to cover up food (to keep it warm on the Sabbath) with (“dāqā”) fine tow. Rabbi Yehuda prohibits (“dāqā”) fine tow and permits (“gāsā”) coarse tow.” (Mishna Šabbāt 4:1).[17b]

→ Dāqā (Hb). Fine (hackled) tow (probably without shives). See previous entry. {18}

→ Dāqtā (Ar). Fine (scutched) tow (probably with shives). “A live fowl that fell on (“dāqā”) fine tow, there is concern that it has been internally injured, and is subsequently unfit for use as (edible) poultry.” (BT Ḥūlīn 51b). DJBA 349. [17b]

→ Dāqqātā (Ar). Very fine (hackled) tow (without shives). “A live fowl that fell on (“dāqā”) very fine tow, there is no concern that it has been internally injured, and is subsequently fit for use as (edible) poultry.” (BT Ḥūlīn 51b). DJBA 348. {18}{191}{29?}

ˀānīṣ > ˀānīṣīn > ˀānīṣei (construct state) ≈ ˁānīṣ, ˁānūṣ (Hb). Scutched or hackled flax fibers. “One who has vowed not to don linen is permitted to cover himself with (“ˀānīṣei pīštān”) flax fibers.” (Mishna N̄dārīm 7:3). “One who has found abandoned (”ˀānīṣei pīštān”) flax fibers – they belong to him…” (Mishna Bāḇā Mᵊṣīˁā 2:1).[17b]

{18} See: Sereq infra.

Sereq190 (Hb). Flax sliver. “One who is suspected that he violates the laws of the Sabbatical Year – it is forbidden to purchase from him flax even (“sereq”) sliver, but spun or woven material is permitted.” (Mishna B’ḵōrōṯ 4:8). {18} See: ˒ānīṣ supra.

Sereṭ (Hb). Band or ribbon. “It is prohibited to tie together a (“sereṭ”) ribbon of wool and a (“sereṭ”) ribbon of flax to use as a belt, even if there is a leather strap between them.” (Mishna Kīlˀāyīm 9:9). {18} {24}{191}[29?]

ˀūn > ˒ūnīn (Hb). A hank (or: ‘skein’) of spun linen.192 “…and the (˒ūnīn) after they have been bleached…will be susceptible to the impurity of an eruptive affection”193(Mishna N̄gā’im 11:8 and Maimonides commentary ad loc.) “[Utensils which are permitted to be loaned out during the Sabbatical Year, notwithstanding their conventional use for currently forbidden agricultural products, because it is possible that they will be employed for a permitted use, for example]…an oven to conceal therein ˒ūnīn of pīštān…” (JT Ṣᵊḇīˁīṯ 36a). {21}

Hūṭ Pīštān (Hb) > Ḥūṭei ± Ḥūṭ’ā D’Kītānā (Ar) ± ˒Azil (Ar). Linen yarn or string.194 “One who


189. The last three descriptions of different grades of fine tow may overlap.

190. JT Mā’serōṯ 52g quotes this Mishna, but reads: “pīštān sārūq” (hackled flax). “˒ānīṣ” and “sereq” could be of overlapping meaning. In any case, sereq is a mass noun, in contrast to ˒ānīṣ, which is a count noun.

191. Perhaps this is a narrow fabric, woven with a belt loom or tablets. The parallel Tosefta (5:22), in place of sereṭ (‘band’ or ‘ribbon’), reads “sereq” (flax sliver). Cf. supra. Perhaps sliver was used as part of a belt (?).


193. After HB Leviticus 13:47 “When an eruptive affection occurs in a cloth of wool or linen fabric…”

194. Nine grades of linen yarn are mentioned (from fine to coarse) by Diokletian XXVI 4-12, Lauffer 1971, 169.
found a ("ḥūṭ‘a d’kītānā") linen yarn in his woolen cloak and pulled it out. He wasn’t sure if it had been entirely pulled out or not…” (BT Nīdā 61b).

“One who makes a tunic entirely of camel hair or rabbit hair, and wove one strand of woolen yarn on one side and one strand of ("ḥūṭ pīštān") linen yarn on the other side – the garment is forbidden.” (Tosefta Kīlāyīm 5:12). “A woman shall not go out195 on the Sabbath with ("ḫuṭei šemer") wool yarns or ("ḫuṭei pīštān") flax yarns or laces in her hair. (Mishna Šabbāt 6:1). DJPA 401. DJBA 436. {21}

Māmzōr (Hb). Plied linen yarn. Cf. √mzr↑. “One who makes (or plies) ("māmzōr") plied yarn (or cord) on the Sabbath is liable for the labor of spinning.” (JT Šabbāt 10g). {21} -----

Šṭīy LāPīštīm/BāPīštīm (Hb) = Šīṭyā L’-kitānā/= B’-kitānā‘ (Ar). Flax yarn intended for use as warp. The Hebrew phrases are Biblical quotations (Leviticus 13:48-58), which are quoted in Rabbinic literature (Sifra 5:13, 15) for the purpose of halakhic discussion. The Aramaic phrases are from the targums of the respective Biblical verses. {21/24}

Nāṣbā > Nīṣbei (Ar) ± Rešēt (Hr). Net.198 “Rabbi Ḥīyyā planted flax and (from it) made ("nīṣbei") nets199 to trap gazelles…” (BT Kṭūbūṯ 103b) DJBA 778. {30}

Ḥeḇel > Ḥāḇālīm/n (Hb, Ar) ± Ḫāšlā (Ar) ± Ḫaṭūnei (Ar) ± Mīṯnā’ (Ar). Rope or cord. “There are three materials from which ("ḥāḇālīm") ropes are made… from flax for measuring (or surveying).” (BT ʻerūḇīn 58a). “Ropes ("ḥāḇālīm") of flax are forbidden to use as the roofing for the festival booth.” (JT Sūkkā 52b). “Rabbi Ḥīyyā

195. The reason for this prohibition is that the woman might take the yarns out of her hair and carry them in her hands in the public domain, which is forbidden on the Sabbath.

196. BH = Māṭweh (Exodus 35:25). This is a Biblical hapax legomenon.

197. The difference between warp and weft yarns is not mentioned in these sources. There are a number of possibilities: 1) The yarns may be of different twist directions (‘S’ or ‘Z’) to enhance interlock, or of different counts (thicknesses). Cf. BT ʻaḥoḏā zārā 17b.
2) The warp yarn may be of a tighter twist than the weft. 3) The warp yarn may be sized (treated with starch or the likes) or boiled to make it more durable. Cf. Rashi to BT M’lāy ᵣ>siv: ‘ma’i l’hīřā’tāḥ- “…he smoothes (or: ‘polishes’) the yarn for weaving with bran or anything else…” 4) Different qualities of fibers may be used, e.g. (stronger) long fiber flax for the warp and short fiber for the weft. (After John Peter Wild, personal correspondence.)

198. Pliny Book 19, chapter 2: “From the same province of Spain Zoēla flax has recently been imported into Italy, a flax especially useful for hunting-nets; Zoēla is a city of Gallaecia near the Atlantic coast. The flax of Comae in Campania also has a reputation of its own for nets for fishing and fouling, and it is also used as a material for making hunting-nets.” Xenophon, On Hunting, Chapter 2, Section 7: “The net-keeper should be a man with a keen interest in the business, one who speaks Greek, about twenty years old, agile and strong, and resolute, that, being well qualified to overcome his tasks, he may take pleasure in the business. The purse-nets should be made of fine Phasian (Colchian) or Carthaginian flax, and the road-nets and hayes (meaning unclear – NBY) of the same material.” Ibid., Chapter 10, Section 2: “The nets must be made of the same flax as those used for hares, of forty-five threads woven in three strands, each strand containing fifteen threads.”

199. Cf. JT Mgillā 74d that he made ropes for this purpose.
bought flax seeds, planted them, harvested them, and made ("ḥāḇālīn") ropes… (JT Msgiving 74d). “…A diver descended, and tied (‘atūnei’) ropes of flax to a reef, and to the ship.” (BT Rosh HaShana 23b). “…One who tied a (‘mīṯnˀa’) cord of wet flax to his loins…” (BT Baḇa Mᵊṣīˁa 113b). DJPA 185. DJBA 173, 427, 721. {28}

Mᵊšīḥā (Hb/Ar). Cord or twine, often used for surveying. Māšōḥā – surveyor. √mšḥ – to measure or survey. “The surveyors (māšōḥōṯ) do not measure exhaustively…” (Mishnah ˁerūḇīn 4:11). DJPA 333-334, DJBA 712. {28}

---

Dardas > Dardasin (Ar). Stockings or foot coverings made of linen or wool. “‘Dardasin’ of wool on one foot and ‘dardasin’ of linen on the other foot…” (JT Kilˁayim 32d). DJPA 154, 155. {29}

Kᵊlei Pīštān ± Bīg̱ dei Pīštān (Hb) ≈ Mānei DᵊKītānā (Ar). Flaxen or linen garments or other textile product. “One may purchase, from a (married) woman, woolen items in Yehuda, and (‘kᵊlei pīštān’) flaxen items in the Galilee.” (Mishnah Bāḇā Qāmā 10:9). “One must delight his wife during the festival, with a gift that is appropriate for her. In Babylonia – dyed (woolen) garments, in the Land of Israel – pressed (‘bīg̱ dei pīštān’) linen garments.” (BT Pᵊsaḥīm 109a). DJBA 579. {29} → Kītānā Rōmītā ≈ Rōmˀā’ā (Ar). Very expensive and quickly worn-out linen garments, or very fine flax yarn. “One who inherited a large sum or money and wants to waste it should wear linen garments, specifically ‘kītānā rōmītā’.” (BT Baḇa Mᵊṣīˁa 29b). “One shall not compel his wife to (wet-) spin flax yarn (through her mouth), because it causes halitosis and scars the lips. Specifically, ‘kītānā rōmˀā’ā’.” (BT Kᵊṯūbōt 61b). {29}

Sāḏīn > Sᵊḏīnīm (Hb) ≈ Sᵊḏīnā > Sᵊḏīnāyā (Ar). One of various simple (flat) textile products, e.g. bed sheet, curtain, veil or awning; possibly made of linen. Also, a specifically linen wrapped-garment. This is a rare HB term, appearing three times. “I shall give you thirty “sᵊḏīnīm” and thirty sets of clothing.” (Judges 14:12-13). “And the lace gowns, and the “sᵊḏīnīm”, and the kerchiefs and the capes.” (Isaiah 3:23). In these two appearances, the context is garments. The following offers no direct inference as to the identity of the item: “She makes a sāḏīn and sells it…” (Proverbs 31:24) {29} None of the HB texts indicate what material the sāḏīn is made of. {29}
Talmudic sources may or may not indicate that this product is made of linen:

“...She spread a (“sāḏīn”) bed sheet of (“pīštān”) linen on his bed...” (BT B'rāḵōṯ 10b). (“Sāḏīn”) with attached (“šīḇūt”) fringes (or: ‘tassels’) – what is the law?” (Mishna Ṿedūyōṯ 4:10) “A (“sāḏīn”) curtain (or: ‘screen’) of “būṣ” was placed (or: ‘drawn’) between the High Priest and the people…” (Mishna Yōmā 3:4). “(A) sḏīnā of “kītānā” (linen) and its tatters.” (BT Šḇūˁōṯ 6b). DJBA 788. DJPA 368.

**Occupational names** (Nomina agentis)

The challenges involved in accurately defining these occupational names emanate from both the ambiguity of context in ancient text and the uncertain organization of the historical labor force. Curchin encounters these very difficulties regarding the definition of two Greek occupational names in this industry. His discussion is quite relevant, if not parallel, to our own deliberations in this paper. Here we will quote selected portions:

**Lintearius** is presumably a producer. One can therefore readily understand the translation “linen-weaver”, adopted by Lewis and Short... Susan Treggiari suggests that *linteariae* were basically linen-sellers who may, however, have woven the linen they sold... I (Curchin) would alter the emphasis... and see the *lintearius* as primarily a linen-weaver who could (and frequently would) sell his own products in his shop... This does not explain the difference between *lintearius* and *linarius* or the need for two types of tradesman in the same product in the same town. *Linarius* may be a dealer in *linum* – flax, and *lintearius* a dealer in *linteum* – linen cloth... In the East we find... flax could be purchased raw in bundles... or to barter the spun skeins... Merchants of linen yarn – *linemporoi* – are attested selling to professional weavers, and the guilds of such merchants are attested...

In synopsis, linen-merchants themselves may be linen-weavers, or perhaps linen-workers at other previous steps of production. The distinction between merchants and workers is therefore blurred. We shall find similar ambiguities/complexities in Talmudic terminology, as follows.

Following are the five major nomina agentis for this field in rabbinic literature:

1) *ʾōseι* (construct state) *Pīṣṭa* (Hb pl.)
2) *Būṣʿai > Būṣʿaʿei* (Ar)
3) *Kāṭṭān* (Hb)

---

207. Cf. also: būṣ supra and footnote on the curtains (or: ‘screens’) used in the Jerusalem Temple.
208. Numbers Ch. 15:37-38 “The Lord said to Moses as follows: Speak to the Israelite people and instruct them to make for themselves fringes on the corners of their garments throughout the ages; let them attach a cord of blue to the fringe at each corner.” (JPS) NIV
209. The legal discussion here deals with affixing woolen fringes on this linen garment, which may violate the HB prohibition of mixed species. (Maimonides commentary ad loc. Leviticus 19:19 “...a garment from a mixture of two kinds of material shall not come upon you.” Deuteronomy 22:11 “You shall not wear a garment combining wool and linen.”)
211. The Theodosian Code mentions the public tax on “Scythopolitan linen workers” (10.20.8). “Linteeones and linyi are apparently synonymous there as elsewhere.” Wild 1967, 656 Identifies these workers as linen-weavers, and the state levy as *publico canoni obnoxii*.
213. Jerrard 2000 (no pagination) presents evidence for the connection between retailing and manufacture in the Roman textile industry in *collegia* (craft union) inscriptions. Both retailers and manufacturers were members of the same *collegium*.
215. Shatzmiller 1994, 121 presents a similar situation of ambiguity in Medieval Arabic flax-related nomina agentis: Kattān = weaver of flax, linen flax manufacturer, seller, flax spinner, or flax comber. Katṭān = cotton spinner and/or seller, cotton manufacturer and/or seller, carder. Kattānī = flax spinner.
216. A second group of temporary and auxiliary flax-linen nomina agentis will follow.
4) Kîtānˁāʾi, Kîtānyāʾ (definite) > Kîtānˁāʾe (Ar)

5) Pīstān (Hb)
The common denominator of this group of occupational names in various forms is the often lack of mention of any specific activity, whether it is commerce or some stage of production. The only fact mentioned is that the occupation deals with flax-linen, which is indeed ambiguous. English does not have a conventional word for accurate translation of these terms without applying circumlocution. The Spanish “linero” is an excellent candidate. Innovative terms, either “flaxman”218 or “flaxist”,219 would serve this purpose well. We will attempt to extrapolate each name’s more definite application from its contexts, but that does not eliminate the possibility that the same occupational name included additional applications.

1) ʿōsei pištān (Hb pl.). Flax makers or producers.220

Qasiya (leather gloves) of zorˁei grˀanoṯ (winnowers of granaries), of holˀkei dʳaḵim (wayfarers), of ʿōsei pištān (flax makers or producers) – are susceptible to (halakhic) impurity. But those of šabbāʿim (dyers) and of nappaḥim (blacksmiths) are insusceptible…” ( Mishna Kelim 16:6)

This occupational name embodies both the material used and the procedure performed, at least in general. Therefore we have translated “flax producers” – in accordance with the participle’s meaning. In order to determine in what specific activity these “flax producers” are engaged, we must identify the purpose of this leather glove. Perhaps it is worn while pulling flax in the field, both to enable a good grip on the plants and to prevent wounding the hands – thus they are “flax pullers”.221 Or it is worn during the subsequent braking, scutching and hackling processes – again enabling a good grip on the stalks and fibers while working – they are “flax brakers”, “flax scutchers” or “flax hackers”.

Notice should be taken of the two groups of occupational names in this subchapter, arranged by rhyme and prosody: 1) zorˁei grˀanoṯ, holˀkei dʳaḵim, ʿōsei pištān – all plural participles. 2) šabbāʿim, nappaḥim – both in the qaṭṭāl pattern, in plural form. We will mention this phenomenon in the kattān entry.

An additional direction of inference to differentiate between the two occupational names – kattān (infrā) and the current ʿōsei pištān is by comparison with a similar pair of occupational names – zāggāg and ʿōsei zwget. Both occupations are glass workers, and appear jointly in the same subchapter of Mishna (Kelim 8:9) and Tosefta (Kelim Baba Mṣḏaʾa 3:10) or separately (zāggāg – Mishna Kelim 24:8, ʿōsei zwet - Tosefta Kelim Bava Mṣḏaʾa 3:11). The joint appearances indicate that they are two different occupations, not synonyms. Here, as in our own context, zāggāg is in qaṭṭāl form, based on the material being worked with – glass. A literal translation would be “glazier” notwithstanding the current dictionary definition – “one who fits glass into windows”, or a synthetic “glassman” or “glassist”. And just as “ḵtn”, “zgg” is an Aramaic nominal root, imported into the Mishna. These have become Hebrew words.

218. All of the current nomina agentis appear in masculine gender in rabbinical literature, which is the default option. Other, predominantly or exclusively women’s occupations, may appear in feminine gender, cf. mɔẓ′rōṯ (spinners or plyers) mẓrʿ Ṣupra, ʿōrgōṯ (weavers), tȯrōṯ (spinners). Sārōqōṯ (infrā) is the exclusive non-gendered plural form of the qāṭṭāl nomina agentis. According to Tosefta Qidush 5:14, they are men.

219. English language occupational names, often based upon the material or object involved, may appear with suffixes “-ist” and “-man”.
Due to the intended vagueness of our proposals, it is equally possible that he is a flax craftsman, tradesman, or transporter. Cf. cowman, horseman, iceman, laundryman, milkman, woolman, etc. And florist, colorist, machinist, etc.

220. Cf. Isaiah 19:9 “Flax workers (“ʿōḏeq pištīm”) too shall be dismayed, both hackers and weavers of white (or: ‘nets’) chagrined.”

221. Moore 1922, 86: “These experts are ever ready to explain the knack which ensures no blistering of hands and no creaking of stoo ped backs...” Ibid. 87-88: “Pulling flax calls for skill... A schoolmaster, who presumes himself to be adept, is eager to demonstrate to others the right finesse of the pulling art. Just a few minutes later he has retired... to have oiled silk affixed to his lacerated finger.” DeWilde 1999, 53-54: “Another frequent inconvenience, especially with the young pullers, was the blisters that formed on the hands... Pricks from thistles and other weeds sometimes caused chaps or other wounds...”
In contrast, ˁōsei zᵊḵūḵīṯ, are literally “glass producers”. Grossmark\textsuperscript{222} identifies “ˁōsei zᵊḵūḵīṯ” as the producers of slabs or chucks of glass – the raw material, and “zāggāg̱” as the artisan who manufactures (and often sells them himself) glass utensils – the end product. Perhaps the redactors of the Mishnah were consistent in this formula, and we may deduce that “ˁōsei pištan” is one who works in early stages of production (\textit{e.g.} pulling – with gloves), and “kāttān” in later stages of production (\textit{e.g.} hackling – with an apron).

2) \textit{Būṣˀai} > \textit{Būṣˀa'ei} (Ar). A flaxman or flaxist.

“\textit{When the Sanhedrin ceased to exist, song ceased from the places of feasting; as it is said, they shall not drink wine with a song...}”\textsuperscript{223}(Mishna \textit{Soṭa}, 9:11)

The authority of the \textit{Sanhedrin} (‘Synedrion’ – the supreme court of Israel) was terminated by Roman General Gabinius in the middle of the first century BCE.\textsuperscript{223} That was considered a national disaster, and as a result appropriately solemn behavior was enacted. Among the restrictions, certain types of song were prohibited. This concept is based upon the HB verse: “They drink their wine without song...” (Isaiah 24:9).

The Talmud discusses the above Mishnaic law. “Rav Huna said: The singing of boat-draggers and herdsmen is permitted, but that of weavers is prohibited.” (BT \textit{Soṭa} 48a)

Here, the Talmud discerns between different types of song, for the purpose of defining their respective legal standing in this context. Apparently, singing only assists the boat-draggers and herdsmen in their work and is considered solemn, and therefore permissible. In contrast, the singing of weavers it is joyful and therefore forbidden, because it contradicts the appropriately solemn national mood.\textsuperscript{224} These historical work songs are not currently identifiable.

\textit{Šᵊ'eltōṯ} of Aḥai Gaon\textsuperscript{225} (a post-Talmudic work) adds (or: ‘reads’): “...but that of weavers \textbf{and} \textit{Būṣ'a'ei} is forbidden.”\textsuperscript{226}

\textit{Būṣʼa'ei} are “flaxists”, as no specific activity is inferred, only the material dealt with.\textsuperscript{226b} From this source, we cannot correctly extrapolate which activity in the production process is performed by them. We have chosen “flaxist” (\textit{cf. supra}), an occupational name consisting of the material used with an added noun suffix, as an attempt to accurately and elegantly reflect the original terminology.

This agent noun is a \textit{hapax legomenon} in Talmudic and post-Talmudic literature. It is parallel in form to the Hebrew pištani/pištanim and Aramaic kitanʾai/kitanʾaʾei.

3) \textit{Kāttān} (Hb). A flaxman or flaxist.

“These hides are susceptible to “\textit{middrās}” (a specific class of halakhic impurity)… the hide of the ḥāmmār (donkey driver), the hide of the \textit{kāttān} (flaxman), the hide of the kāttāp (porter)…” (Mishna \textit{Kelīm} 26:5)

This occupational name requires some linguistic explanation. Despite the Mishnah being a primarily Hebrew language work, an imported Aramaic nominal root √ktn is employed here,\textsuperscript{228} in the Hebrew qāṭṭāl pattern of \textit{nomina agentis}, thus resulting in a Mishnaic \textit{hapax legemenon}. Perhaps this relatively uncommon stylistic choice was deemed necessary by the editors of the Mishna (and Tosefta - \textit{infra}) which was intended primarily for oral rote learning - in order to avoid the aural ambiguity of the possible Hebrew “pāššāṯ” (flaxman, extracted from “\textit{pešēt}”) and “pāššāt”
(animal skinner) - both of which could well use an apron while working. During the Mishnaic period, the differentiation in pronunciation between emphatic consonants and their respective contrasting non-emphatic (‘t’ • “t”) had been weakened, and as a result these became homophones (albeit not homograms). The use of the Aramaic root in qāṭṭāl form here, and not the more expected Hebrew “ōsei pištān” - flax producers (Mishna Kelim 16:6), is also necessitated by the poetic character of Mishnah, which incorporates rhyming and prosodic passages. This particular subchapter lists leather products related to various uses and occupations, which are in turn grouped for rhyme and prosody: 1) “hide of s‘cortā’ia” (table-cover), 2) hide of qataboliā’ia (bed-cover) – both Greek loanwords; 3) hide of the ḥāmmār (donkey-driver), 4) hide of the kāttān (flaxman), 5) hide of the kāttāp̱ī (porter) – all qāṭṭāl pattern agent nouns. A pertinent parallel to this prosodic phenomenon may be offered from the same tractate (16:6) in context with “ōsei pištān”, and has been discussed supra.

The specific activity of the kāttān is unclear; as a result we prefer to translate “flaxman”, as the most faithful representation of the original term which does not allude to any specific activity, only to the material being dealt with.

Maimonides, in his commentary to the Mishnah ad loc. identifies these particular hides as aprons. He explains that the worker is engaged in scutching or hackling and that the leather apron protects his garments from tow, shives and dust – a “flax scutcher”. Other possibilities are that the apron is worn while pulling the flax straw from the retting water hence a “flax retter” and subsequently while “gaiting” or “stooking” for drying – a “flax stooker”. In that case, the leather apron protects the worker’s clothes (at least partially) from becoming wet and malodorous. We also find that in modern Flanders, a leather apron was worn by “flax pullers”, to protect their garments from dew. In modern industrial wet-spinning, waterproof bibs and aprons were donned by workers.

The parallel Tosefta (Kelim Bāḇā Bāṯrā 4:8) repeats this term. In one variant (Zukermandel edition) “pāttān” replaces kāttān. Perhaps this is a visual-mistake (graphic) scribal error, or “permutation”, for these two Hebrew letters “k” (כ) and “p” (פ) are similarly shaped. In addition, kāttān is a hapax and unfamiliar to the scribe. Another possibility may be suggested, that this variant represents an attempt (or a textual tradition) in which this qāṭṭāl patterned nomen agentis is based on the Mishnaic Hebrew pštn (deleting the “š” from the quadruple form), instead of the Aramaic “kītān”.

4) Kītānʾāi, Kītānyāʾ (definite) > Kītānʾāʾei (Ar). A flaxman or flaxist – flax worker, flax merchant. See supra: Ḥanwāṯā, Ḥōṣen (JT Peʾa 16a), Qōfnā (JT Šābbāṯ 10a), dwš√, npṣ√. DJPA 257.

5) Pīštānī (Hb). A flaxman or flaxist. There are three examples:

“Once a young girl entered to obtain flax from the (‘pīštānī’) flaxman, and he said to her: ‘this is for your engagement’ to me”. (JT Ḏābāṅ 13g). It is difficult to identify the specific procedure performed by this pīštāni, other than being a merchant of flax or linen.

230. DeWilde 1999, 128. This was originally a leather apron.
233. See however: Lieberman 1939, Part 3, 83 who rejects this reading.
234. The middle consonant of this qāṭṭāl pattern is not actually doubled in Hebrew, it is emphasized by a dot in its center (in this case: ‘n”), called ‘dagēs characteristicum’. Nevertheless, scientific transliteration requires doubling the English consonant. Also worthy of mention, the parallel Phoenician root is ṣpṭt. Nevertheless, this is certainly unknown to the Mishna.
235. An unpublished 5th century AD plaster inscription from the Rḥōḇ synagogue in the Beth Shean Valley mentions “ktnh” (Nomina agentis). Dr. Hagai Misgav, personal correspondence.
236. The attempt to engage her was later deemed invalid.
“This (‘pīštānī’) flaxman, at the time he knows that his flax is strong, the more he beats it – the finer and shinier it gets, and when he knows that it is weak he doesn’t even beat it more than once and it breaks up…” (BR 32:3 Vatican codex 30). See: kītānā. This pīštānī is a flax beater (or: “beetler”).

“This (“pīštānī”) flaxman, his camels entered loaded with flax. The collier wondered: ‘How where can all that flax fit in?’ There was an ingenious person on hand who remarked: ‘One spark from your bellows and the flax will burn up!’” (Rashi to Genesis 37:1237). In this case, the pīštānī is probably either a merchant or transporter of flax straw.

Temporary and auxiliary professions

Commerce

6) Ḥāwā ˁāseq (ˁāsīq) ≈ ˁāsāq bāhādā kītānā (Ar). “(He) was engaged in, or was dealing with flax”. This indicates a long term affiliation with the occupation. Further details are gleaned from context. “Rabbi Zerāʾ was engaged in flax. He went to ask Rabbi Aḇhū: ‘Am I permitted to improve the appearance of the flax (which may be deceptive to a prospective consumer, and gain a higher price)? Rabbi Aḇhū answered: ‘You may do as you see fit!’” (JT Bāḇā Mᵊṣīˁā 9d). Apparently, Rabbi Zerāʾ is a merchant of flax fibers. “(Rabbi) Šīmʿōn Ben Šeṭāḥ was engaged with that flax. His pupils told him: ‘Rabbi! Release yourself from that, and we will buy you a donkey so that you will not have to exert yourself.’” (JT Bāḇā Mᵊṣīˁā 8g). Perhaps Šīmʿōn Ben Šeṭāḥ was a flax merchant and he himself had delivered the merchandise while functioning as a porter.

7) Ḥāwā lei kītān (Ar). “(He) had flax”. This indicates a short term affiliation with this occupation. “Rav (PN) had flax and it was damaged (He) asked Rabbi Ḥīyyā Rūbā (the elder): ‘Am I permitted to slaughter a fowl and mix its blood into the flax seed?’” (JT Maˁaser Šenī 56d, BT Ḥūlīn 85b). Presumably, Rav had cultivated flax.

8) Broker “Rav Kahana made a down payment on flax, later on it became more expensive. The owners (or: ‘customers’) of the flax bought

237. Probably quoted from a rabbinical midrash aggada, which is not currently known.


239. The two different possible vocalizations represent either the active or passive forms of the participle. The original text is not vocalized.

240. Perhaps: “Was once dealing with flax.”

241. It is unclear to me exactly how that would be done (NBY).

242. Mishna Bāḇā Qāmā 3:5 describes various encounters between two porters in which an accident and subsequent damage occurs. One encounter involves a collision between a porter of flax (straw) and one carrying a (burning) lamp. Small quantities of flax could be delivered by porter instead of by beast of burden.

243. It is unclear exactly what happened. Perhaps the seed had gone bad (become moldy?) and he knew that it would not properly germinate, or he had made a test plot, or there was still enough time to re-sow his field after germination failure, so he sought a way to cure the malady with fowl blood.

244. Rabbi Ḥīyyā himself had raised flax, at least once. Cf. supra vqd, Nāšbā.

245. According to Biblical law, (most of) the blood of a slaughtered fowl must be covered with soil, and not otherwise used. After HB Leviticus 17:13 “And if any Israelite or any stranger who resides among them hunts down an animal or a bird that may be eaten, he shall pour out its blood and cover it with earth.”

246. In the BT version, Rabbi Ḥīyyā is he who had the flax and asked Rabi (PN) the question.

247. It is not clear if he did this just once, or was accustomed to doing so. Also unclear if this was for his own purchase, or that he was acting as an intermediary for clients.

248. Perhaps a flax crop growing in the field, or possibly other intermediate stages of production.

249. The reason is not indicated, probably price fluctuations in the marketplace.
Flax and Linen Terminology in Talmudic Literature

Comber

9) Söreq ± Sārōq > Sārōqōt (Hb). Flax ‘hackler’ or wool ‘comber’. 251 See: srq√, Māsreq, and Sereq supra. “...the hide of the (‘sōreq’) comber...” (Mishna Kelīm 26:5). Major commentators 252 of the Mishna have interpreted this as either a flax hackler or wool comber. 253 “The rod of the (‘sārōqōt’) combers’ scale...” (Mishna Kelīm 12:2). Maimonides in his commentary to the Mishna explains that a scale of this type is used both by wool combers and flax hacklers. {18}

Conclusions and Future Research

In this paper we have compiled and analyzed the textile terminology of flax and linen in Talmudic (rabbinical) literature. We have found that there is quite an extensive vocabulary for this field. That may well indicate certain ethnographic characteristics, such as the centrality of flax-linen production and use in the Talmudic era Jewish society of the Land of Israel and Babylonia. 254 In addition, virtually all of these terms are linguistically Semitic, i.e. Hebrew or Aramaic. 255 This contrasts to Talmudic nautical terminology, which consists almost entirely of Greek loanwords. 256 The primarily Semitic vocabulary aspect may indicate an indigenous and perhaps ancient industry.

Research is never complete. Future expansion of this topic may proceed in various directions. In addition to flax and linen, wools and silks have a significant place in this literature, and their respective terminologies should be treated in a similar fashion. The etymologies of the terms may be further pursued. Illustrations of the materials mentioned (e.g. textiles and implements) from contemporaneous archaeological finds in the appropriate regions may be furnished and their relation to the texts analyzed. 257 Parallel and geographically adjacent contemporaneous literary sources, such as Latin, Greek, 258 Syriac, Mandaic and Middle Persian (Pahlavi) can be examined and their terminology’s relation to the Talmudic terminology analyzed. And, as mentioned in the introduction to this paper, semantic nuances within Talmudic literature itself, emanating from various trants, dialects, time periods and locales can be addressed.

Bibliography

Primary Jewish sources

HB translations

Aramaic:


Targum Proverbs: http://cal1.cn.huc.edu/showtargum.php


250. Insight into this issue is from Beer 1974, 189-191 - although I have altered it somewhat.

251. Wool “carding”, as opposed to “combing”, did not exist until the Middle Ages. (John Peter Wild, personal correspondence.)

252. Ovadiah ben Abraham of Bartenura (c. 1445, Bertinoro, Italy - c. 1515, Jerusalem), and Shlomo bar Y’hoshua Adeni (1567-1625, San’a and Aden in southern Arabia).

253. See also: Ayali 1984, 49-50.

254. The well-known legend maintains that there are innumerous terms for camels in Arabic, as a result of the camel’s centrality in Arab society.

255. Qānābūs, Qōpnā, and Qāsīyā are foreign loan-words.

256. After Sperber 1986, with my own deductive conclusion (NBY).

257. Discrepancy between historical literary, iconographic and archaeological sources is a well-known and challenging phenomenon.

258. See: Georgacas 1959.
Other Languages:

(This is the default translation used in the paper, unless otherwise indicated.)


LUT: Luther [https://www.die-bibel.de/online-bibeln/luther-bibel-1984/bibeltext/](https://www.die-bibel.de/online-bibeln/luther-bibel-1984/bibeltext/)

LXX: Septuagint [http://www.ellopos.net/elpenor/greek-texts/septuagint/](http://www.ellopos.net/elpenor/greek-texts/septuagint/)


Mishnah:

Vilna edition (1880)

Tosefta:

Codices: [http://www.jnul.huji.ac.il/dl/talmud/tosefta/selecttifi.asp](http://www.jnul.huji.ac.il/dl/talmud/tosefta/selecttifi.asp)

Jerusalem Talmud:

Venice edition (1522)
Leiden codex (1289): [http://maagarim.hebrew-academy.org.il/Pages/PMain.aspx](http://maagarim.hebrew-academy.org.il/Pages/PMain.aspx)


Babylonian Talmud:

Vilna edition (1870)
Codices: [http://www.jnul.huji.ac.il/dl/talmud/bavly/selectbavly.asp](http://www.jnul.huji.ac.il/dl/talmud/bavly/selectbavly.asp)

Midrash Aggada:


Codex Vatican 30: [http://maagarim.hebrew-academy.org.il/Pages/PMain.aspx](http://maagarim.hebrew-academy.org.il/Pages/PMain.aspx)
Midrash Tanhuva. 1874. Warsaw.

Post-Talmudic works:

Rashi – R’ Shlomo Yišḥaqli, commentary to the Babylonian Talmud. 1880-1886. Vilna.

Primary Sources – General


Modern sources

Dictionaries and Lexicons, Biblical and Talmudic research


Melamed, E. Z. (1973) *An Introduction to Talmudic Literature*. Jerusalem. (in Hebrew)


Oxford Bible Studies Online [http://www.oxfordbiblical-studies.com](http://www.oxfordbiblical-studies.com)


Textile history and technology


6. Flax and Linen Terminology in Talmudic Literature

Legend

Symbols

Singular form > plural form
Derived from <
Indefinite noun ~ definite noun
X ▶ Y ▶ Z – Stages of linguistic evolution
→ Sub-distinctions, provided within the text
↑ See above entry X
↓ See below entry X
apeutics and their struggle for Rights. Tel Aviv. (in Hebrew)


(Scientific transliteration will be employed in quotations from Hebrew and Aramaic texts, albeit not necessarily in the names of the texts themselves or their authors.)

⁄ – Alep (א) – glottal stop.
 réalité, youth

Diacritics

ī – As in beat, nosebled
ō – As in bone, know
q – Emphatic “k” – “qoph”
ṣ – Emphatic “s” – “sad”
š – Hebrew “sin”, also used in Ancient Egyptian
š – Pronounced as “sh” – “šin”
ṭ – Emphatic “t” – “tet”
u – As in rule, youth
Fricative (soft) consonants

ḇ – (bh, v)
g – (ɣ/gh, voiced velar fricative. Arabic ẓ).
d – (ð/dh, voiced th, as in “those”, “feather”)
ḥ – (kh, as in J. S. Bach)
p – (ph, f)
t – (/θ/voiceless th, as in “thin”, “tooth”)

Abbreviations

Ar = Aramaic (The various Aramaic dialects, e.g. Jewish Babylonian, Jewish Palestinian, Jewish Literary, Targumic, Late Jewish Literary, etc. will not be indicated in the present paper.)
ASL = A Syriac Lexicon
BASOR = Bulletin of the American Schools of Oriental Research
BR = Bereshîṭ Raba
BT = Babylonian Talmud
CAD = Chicago Assyrian Dictionary
DJPA1 = Dictionary of Jewish Palestinian Aramaic (2017)
Gr = Greek
Hb = Hebrew
HB = Hebrew Bible
JPS = Jewish Publication Society translation of HB
JT = Jerusalem Talmud (aka: Talmud of the Land of Israel, Palestinian Talmud)
JNES = Journal of Near Eastern Studies
KJV = King James Version
LBH = Late Biblical Hebrew
LUT = Luther Bible
LXX = Septuagint
M = Mishna
NIV = New International Version
NT = New Testament
PS = Targum Peshitta to the HB (in Syriac)
RH = Rabbinic Hebrew
RVR = Reina-Valera Bible
SBH = Standard Biblical Hebrew
T = Tosefta
TO = Targum Onkelos (to the Pentateuch)
TP = Targum Proverbs
TY = Targum Yonatan (to the Prophets)
VUL = Vulgate