

Jesus, Fishermen and Tax Collectors

Papyrology and the Construction of the Ancient Economy of Roman Palestine

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Fishing and fishermen play a significant role in the stories that were told about Jesus and later incorporated into the Synoptic gospels, John, *Thomas*, and *Peter*¹. Although by sheer dint of repetition, the association of Jesus with fishing has become naturalized in Christian imagination. Yet it might at least strike one as interesting that of the disciples most closely associated, only fishermen and toll collectors are specifically identified as such. In the Synoptics no other member of the Twelve is identified by trade. Of the other disciples associated with Jesus, only Levi the τελώνης and Zacchaeus (in Luke) are named in relation to an occupation. Although the Synoptics treat neither as core disciples², the *Gospel of Peter* seems to have considered Levi as one of the Twelve³. We might therefore wonder why fishermen and toll collectors loom so large, relatively speaking, in the imagination of the early Jesus tradition.

I wish to focus in particular on fishing and fishermen and their importance to the economy of Roman Palestine. Two questions drive this inquiry: the first concerns the social and economic status of Jesus' first disciples, that is, the kinds of persons who are depicted in Mark 1,16-20 and Luke 5,1-11 and whether and why fishermen in particular might be featured. The second concerns the peculiar characteristics of the fishing industry and its very complex set of associations with other fiscal and social networks. This may help us to understand why of all those who are said to have been called by Jesus, it is only fishermen and tax collectors that are identified specifically in relation to their trade. For both of these

* This paper began as the fourth Frans Neirynck Memorial lecture (November 6, 2017). I am honoured to have been asked to offer the lecture in Neirynck's memory, and grateful to the University for the invitation.

1. Mark 1,16-20 = Matt 4,18-22; Matt 13,47-50; Luke 5,1-11; John 21,1-14; *Gos. Thom.* 8; *Gos. Pet.* 14,60.

2. Levi (Matthew) disappears after his cameo appearance in Mark 2,14-15 || Luke 5,27-29 and Matt 9,9.

3. P. FOSTER, *The Gospel of Peter: Introduction, Critical Edition and Commentary* (Texts and Editions for New Testament Study, 4), Leiden, Brill, 2010, pp. 510-511.

trades were uniquely situated socially, at the center of complex networks, ideal for the spread of new religious ideas⁴.

The American novella, *A River Runs through It* by Norman McLean is a story set in the 1930s, of a family of four living in Western Montana – a Presbyterian minister, his wife and two sons, Norman and Paul. Norman, the eldest would become a professor of English at the University of Chicago, while Paul the younger was a superb fisherman and a newspaper reporter who would eventually be killed in a bar fight. It is a story of love but also of the helplessness that comes from not understanding one another. It is a story filled with the beauty of wild nature. But above all, it is a story about fly fishing. For Norman, Paul, and their father, no fish should be disgraced by being caught by a fisherman who uses only bait.

In our family, there was no clear line between religion and fly fishing. We lived at the junction of great trout rivers in western Montana, and our father was a Presbyterian minister and a fly fisherman who tied his own flies and taught others. He told us about Christ's disciples being fishermen, and we were left to assume, as my brother and I did, that all first-class fishermen on the Sea of Galilee were fly fishermen and that John, the favorite, was a dry-fly fisherman⁵.

Mark's story of Jesus and the disciples is also a story of brothers, of fishing, of what would later come to be called "religion", of misunderstanding, and ultimately, of death. Yet the childish assumption of Norman and Paul that the first disciples were sport fishermen is of course wrong. For the four fishermen called by Jesus in Mark 1,16-20 fishing was not a hobby but a livelihood.

To the naive reader for whom fishing is a sport, Mark's story of Jesus' call of the fishermen might sound as if they had simply been fishing for recreational purposes along the shore of the Kinneret and could therefore be induced, without a second thought, to abandon their activities to follow an itinerant preacher. The story is in fact constructed in such a way as to divert the reader's attention from wondering about the fate of the relatives of the four fishermen, who would undoubtedly have suffered from their abandonment of income. What of Simon's wife once he had abandoned his livelihood? She (or at least her mother) makes a cameo appearance at Mark 1,30 where she is healed by Jesus but Simon leaves soon afterwards, evidently jobless, or so it would seem. The impression that the fishermen abandoned their profession is reinforced by Peter's

4. For a fruitful use of network theory and the diffusion of various elective cults, see A. COLLAR, *Religious Networks in the Roman Empire: The Spread of New Ideas*, Cambridge, Cambridge University Press, 2013.

5. N. McLEAN, *A River Runs through It*, Chicago, IL, University of Chicago Press, 1976, p. 1.

declaration in Mark 10,28, “See, we have left everything and followed you”. Yet both John’s gospel (21,3) and the *Gospel of Peter* (14,60) suggest that Peter and Andrew returned to fishing after the crucifixion, along with Levi whom the *Gospel of Peter* seems to regard as one of the Twelve.

The two versions of the call of the fishermen – in Mark 1,16-20 and Luke 5,1-11 – do not convey any direct information about the relative social and economic status of fishermen. The ancient hearers of the stories would no doubt know much more about the ancient fishing trade than we do and so would immediately understand whether abandoning their trade was as consequential a decision as monied and probably propertied persons like Levi or Zacchaeus deciding to follow Jesus or whether leaving their nets was little different than a hapless peasant leaving an unproductive plot of land.

Modern discussions of the status of fishermen in antiquity continue to reflect uncertainty as to the economic standing of fishermen. Gerd Theissen treated fishermen as among the “class belonging among those ‘peniless sailors’ who were involved in the rebellion at the beginning of the Jewish War”⁶. In support of this claim he cites Josephus’ *Vita* §66 where Josephus blames some of the disturbances at the outset of the First Revolt on Jesus ben Sapphias, a leader of a sedition of sailors and poor people (τῆς τῶν ναυτῶν καὶ τῶν ἀπόρων στάσεως πρῶτος). Theissen also adduces *Gos. Naz.* 33, which offers the fanciful and wholly unreliable tale to the effect that Zebedee’s father had been a poor fisherman (*pau-peris piscatoris Zebedei*) who had supplied fish to the high priest’s household⁷.

In the mid-second century CE, Celsus would claim that Jesus’ disciples were ten or eleven of “the most wicked tax collectors and sailors” (τελῶνας καὶ ναύτας τοὺς πονηροτάτους)⁸, a claim to which Origen vigorously reacted, correcting not only the number of disciples involved but also identifying the first four as fishermen, not sailors, and by pointing out that apart from Levi, nothing is known of the occupations of the others.

6. G. THEISSEN, *Sociology of Early Palestinian Christianity*, Philadelphia, PA, Fortress, 1978, p. 34.

7. *Historia passionis Domini* folio. 35^r. This is a gloss on the claim of John 18,15 that the Beloved Disciple was known to the High Priest. The Latin text is from A. KLIJN, *Jewish-Christian Gospel Tradition* (Supplements to Vigiliae Christianae, 17), Leiden, Brill, 1992, p. 144 (frag. 54). This is a fifteenth century manuscript, and as W.L. PETERSEN, *A New Testimonium to a Judaic-Christian Gospel Fragment from a Hymn of Romanos the Melodist*, in *VigChr* 50 (1996) 105-116 has shown, while there is perhaps some reliable tradition behind the notion that Peter entered directly into the house of the High Priest, since it is found in the hymnographer Romanos Melodos from 485, the gloss explaining how Peter came to enter and the claim about John being a fishmonger is absent from Melodos’ text, and is likely a mediaeval addition (p. 108).

8. Origen, *Contra Celsum* 1.62.

Theissen later argued that Luke's story of the huge catch of fish, which concludes with Peter and his partners following Jesus (Luke 5,1-11) and which in Luke's architecture substitutes for the Markan call of the four fishermen, reflected Peter's disillusionment and frustration with fishing, apparently as an economically unrewarding occupation⁹. Noting that the Synoptic accounts of the fishermen indicate the presence of hired servants (Mark 1,20), he nevertheless conceded that fishermen did not belong to the "lowest classes" but, leaning on Josephus' account of the beginning of the Revolt, suggested that those who owned boats might nevertheless have made an alliance with the poor. Thus, he still aligned fishermen with interests of the poor¹⁰. The same alignment is taken for granted in Heinz Kreissig's argument that although Mark designates Simon, Andrew, James, and John (and their father) as fishermen, one should assume that they were also poor farmers. He offers no support for this contention but implies that neither farming nor fishing was sufficient to support the needs of the sub-elite Galileans. He offers the hypothesis that farmers during the summer would fish in order to supplement a meagre farming income, and adds the speculation that the story of a miraculous catch of fish (Luke 5,1-11) should be regarded a fantasy of the poor – rather like the fantasy of winning a lottery. It presupposes an economic reality, that "not a great deal could be earned by fishing"¹¹.

Werner Wuellner's classic study on Mark 1,16-20 offered a very different picture. Within the sub-elite population one must differentiate between tenant farmers, unskilled labourers (including some fishermen), "serfs", and hired hands on the one hand, and on the other, artisans, craftsmen, small businessmen, and fishermen who owned their own boats, nets, and equipment. These latter fishermen signed fishing contracts with those who held fishing rights, paid wages to the hired help, and interacted with those who collected taxes¹². Indeed, they should be seen as involved in a "big business" that required capitalization and had the potential to make some of those engaged in fishing moderately wealthy¹³. Mark's mention of presence of *μισθοῦται*, hired workers, left with the elder Zebedee in Mark 1,20

9. G. THEISSEN, *Social Reality and the Early Christians: Theology, Ethics, and the World of the New Testament*, Minneapolis, MN, Fortress, 1992, p. 65.

10. *Ibid.*

11. H. KREISSIG, *Die sozialen Zusammenhänge des jüdischen Krieges: Klassen und Klassenkampf im Palästina des 1. Jahrhunderts vor u.Z.* (Schriften zur Geschichte und Kultur der Antike, 1), Berlin, Akademie Verlag, 1970, p. 46: "Die galiläischen Bauern um den See Genezareth und entlang dem Jordan stellten im Sommer ihre Söhne und bei günstigen Fangbedingungen auch Tagelöhner zum Fischen an. Obwohl Markus die Jünger Simon, Andreas und die Zebediten sowie Zebedäus selbst einfach ἀλλεῖς nennt, ist nicht anzunehmen, daß sie nicht gleichzeitig Bauern waren. Allein die Vision vom reichen Fang, wie sie Armen immer eigen ist und wie sie uns im Fischzug des Petrus begegnet, zeigt daß übermäßig viel mit Fischen nicht zu verdienen war".

12. W.H. WUELLNER, *The Meaning of "Fishers of Men"* (The New Testament Library), Philadelphia, PA, Westminster, 1967, pp. 46, 61-63.

13. *Ibid.*, pp. 52, 62.

and Luke's reference to the Zebedees and Simon being partners (μέτοχοι, κοινωνοί, Luke 5,7.10) were critical to Wuellner's argument that these fishermen belonged to the second tier of the moderately well-to-do¹⁴.

This assessment of the economic standing of fishermen was soon challenged by K.C. Hanson and Douglas Oakman, who contested Wuellner's assessment of the social and economic rank of fishermen:

While [Wuellner] rightly points out that there are 'hired laborers', I see no reason to conclude that they were in a different 'social class' than the fishing families who owned boats. We see both working alongside each other in the gospels (e.g., Mark 1,20). I conclude that both of these groups were 'peasants' in the broad sense, since they both live from their work in the boats¹⁵.

Sean Freyne's masterful book on Galilee offers more evidence concerning fishing on the Kinneret, but he too concludes that it is unlikely that individual fishermen profited much from this industry. Citing Rostovtzeff, he refers to Egyptian evidence that suggests that the system of the farming of fishing rights charged the "high rate of between thirty to forty percent of the total catch"¹⁶.

A 30-40% levy might strike the modern reader as exorbitant. But such a figure must be put into context. A typical crop share lease on a vineyard had the owner taking between half and two-thirds of the harvest, and this still left the lessee with more than a subsistence-level agricultural endeavour¹⁷. It should be obvious that the profitability of any economic activity is not simply a function of the level of extraction – lease payments and taxes –, but also the inputs – the costs of production in labour and materials –,

14. *Ibid.*, p. 61 Likewise, G.H.R. HORSLEY, *A Fishing Cartel in First-Century Ephesus*, in *Id.* (ed.), *New Documents Illustrating Early Christianity*. Vol. 5: *Linguistic Essays*, North Ryde, N.S.W., Ancient History Documentary Research Centre, Macquarie University 1989, 95-114, here pp. 110-111: "the families of Peter and Andrew, and of James and John, must have been of at least moderate means, since each owned a boat and other fishing equipment; furthermore, these families were able to release two sons for a three-year period (Mark. 1,16-20)". Horsley also moots the possibility (following WUELLNER, *Fishers of Men* [n. 12], pp. 55-59) that moderately well-to-do fishermen might not have been illiterate, notwithstanding Acts 4,13.

15. K.C. HANSON, *The Galilean Fishing Economy and the Jesus Tradition*, in *BTB* 27 (1997) 99-111, here p. 105. Similarly, K.C. HANSON – D.E. OAKMAN, *Palestine in the Time of Jesus: Social Structures and Social Conflicts*, Minneapolis, MN, Fortress, 1998, p. 109.

16. S. FREYNE, *Galilee from Alexander the Great to Hadrian, 323 B.C.E. to 135 C.E.: A Study of Second Temple Judaism*, Wilmington, DE, Glazier, 1980, p. 174 referring to the renaming of Migdal (Magala) as Tarichea, he states: "At all events, given this overall state of affairs related to the fish industry, it is unlikely that the small Galilean fishermen would profit from the new markets and better techniques of preservation, even if these were carried out on such a scale that one of the older settlements along the lake front, Magdala, received a Greek name from the new industry".

17. Details in J.S. KLOPPENBORG, *The Tenants in the Vineyard: Ideology, Economics, and Agrarian Conflict in Jewish Palestine* (WUNT, 195), Tübingen, Mohr Siebeck, 2006, especially chap. 9 and Appendix 1.

balanced against the volume and the value of what is produced. In fact the taxation rates on Egyptian fishing were rather variable, at least from the papyrological evidence we have from the third century BCE, where it ranged from 25%, the so-called τετάρτη levy¹⁸ to deductions of over 50%, if one includes taxes and (perhaps) shipping costs¹⁹.

Without other data about fishing, we are left at an impasse in respect to the questions of the profitability of fishing, the relative economic or social standing of fishermen and, more generally, the organization of the fishery in the Galilee in the first century. It is at this point that there is much more evidence from Egypt – practically the only evidence we have – which provides a rather complete picture of fishing, fishermen, the cost of fish, and the organization of the industry.

Before turning to papyri and the organization of fishing in late Hellenistic and early Roman Egypt, it is important to address the issue of whether the structure of industry and banking in Egypt was sufficiently comparable to industry and banking in Roman Palestine to be usefully compared. There is, of course, no way to know for sure since the climate of Palestine has not been favourable to the preservation of documentary sources – that is the kinds of private and administrative documents we have from Egypt. Only in the 'Arava is the humidity sufficiently low to make for the survival of papyri and parchment, and even so relatively few administrative documents have survived. Two considerations, however, make it probably that Graeco-Egyptian data can be useful in thinking about economic practices in Roman Palestine. First, those few papyri that have survived, for example from the Cave of Letters dating to the early second century CE, include lease and loan

18. M.I. ROSTOVITZ, *The Social and Economic History of the Hellenistic World*, Oxford, Clarendon, 1964, vol. 1, pp. 297-298, citing P.Tebt. III/1 701 (Tebtynis, 19 Mar–15 Sept, 235 BCE), either a royal account or the account of a large gift-estate. He concluded that the account “shows how large was the amount of profit coming to the king or the holder of the *dorea* and how small the share went to the fishermen”. This overstates the case. The account only indicates that fishermen using fixed (?) nets were lent 50 dr, which they had to repay in fish (at a rate of 10 fish per drachma) and that others were paid a salary (no amounts are specified). B.P. GRENFELL – A.S. HUNT (eds.), *The Tebtunis Papyri* (University of California Publications. Graeco-Roman Archaeology, 1-4), London – New York, 1902-1976, vol. III/1: 60 comment that the account “leave no longer room for doubt that the fishermen worked for the State as owner of the fishing rights, receiving a share of the fish (τὸ αὐτῶν μέρος, ll. 89-90) as well as a wage (ὀψώνια, l. 151).... There is no mention of contractors, and the fishermen seem to have been under the direct control of the administration”. Rostovtzeff, however, does cite later evidence to indicate that fishermen acting as contractors paid for the right to fish and were liable to pay the crown of 25% of the catch (τετάρτη ἀλίεων, ἰχθυικῶν plus minor taxes).

19. For example, P.Tebt. III/2 867 (late III BCE) provides an account of income and deductions (τέλος) and other deductions, which suggest a tax rate of between 40 and 50%. The tax rate (col. iii. 18-41) is 40%, which is reduced by one-fifth, but other charges added, resulting in an effective deduction of 55%; in iii.26-29 the tax rate is 52% (apparently no deductions); and in vi.71-75 the tax rate is 50% and another charge (με---) of 14% is added but then reduced by one-quarter, resulting in an effective deduction of 60%.

documents²⁰ and these display the same morphology of lease and loan instruments from Egypt²¹. Second, the various discussions of agricultural practices encountered in the Mishnah a century later (mainly in *m.Baba Mesi'a*) are consistent with what is known about small-town practices elsewhere in the Roman Empire²². When we couple these observations with the facts that the Ptolemies had imposed their administrative structures on Palestine and that there is little reason to suppose that following the Battle of Panium in 200 BCE the Seleucids would have dramatically changed the economic organization of Palestine, it seems a defensible practice to invoke what we know of the organization of Ptolemaic and early Roman industry to guide our imagination of comparable industries in Palestine.

MATERIAL CONSIDERATIONS

What material conditions might impinged on fishing? Fishing required a considerable infrastructure: boats and the ability to repair them; the manufacture and repair of nets; access to lead for net weights; stone sinkers and anchors; flotation devices for nets; iron or bronze hooks; ropes; baskets or jars for transporting the catch; transport animals; and processing or sales facilities. It also required the use of the many various moles that have been detected along the Kinneret and legal access to the shoreline from which boats and nets could be launched.

Some of these materials were either not locally available or required specialized manufacture. This meant that fishermen were necessarily entangled with other productive and commercial networks and hence, with the craftsmen who worked in those industries.

We should assume, for example, that fishing boats were not manufactured by the fishermen themselves but by shipwrights and then either sold them to the fishermen or to some fishing contractor²³. The fishing boat

20. N. LEWIS, *The Documents from the Bar Kokhba Period in the Cave of Letters: Greek Papyri* (Judean Desert Studies, 2), Jerusalem, Israel Exploration Society, 1989; Y. YADIN – J.C. GREENFIELD – A. YARDENI – B. LEVINE, *The Documents from the Bar Kokhba Period in the Cave of Letters (Hebrew, Aramaic and Nabataean Documents)* (Judean Desert Studies, 3), Jerusalem, Israel Exploration Society, 2002.

21. See J.S. KLOPPENBORG, *Oral and Literate Contexts for the Sayings Gospel Q*, in C. HEIL – D.A. SMITH – G.J. HARB (eds.), *Built on Rock or Sand? Q Studies: Retrospects, Introspects and Prospects* (BiTS, 34), Leuven, Peeters, 2018, 49-72, esp. pp. 61-64 and n. 46.

22. H. LAPIN, *Early Rabbinic Civil Law and the Social History of Roman Galilee: A Study of Mishnah Tractate Baba Mesi'a* (Brown Judaic Studies, 307), Atlanta, GA, Scholars, 1995.

23. For an example of a boat leases, see P.Aberd. 24 (Soknopaiu Nesos, 194 CE). P.Sijp. 30 (Hermopolites, II CE) lists fishermen who were subject to tax for the boat or boats they owned (ὕπερ ἰδίων πλοίων). Sales are also attested: SB 3.6704 (Aphrodito, 538 CE), in the bylaws of a guild of hunters, members are prohibited from interfering with a guild member selling a boat (πάκτων), lightweight boat of wicker. For the sale of larger boats for carrying grain, the fiction of a μισθοπρασία was devised, the 'lease' of a ship in which the 'lessee'

discovered in 1986 in the lake near Kibbutz Ginnosar – the only such boat to be discovered in the Galilee – supports this assumption (fig. 1)²⁴. The main wood used in the planking was cedar, not indigenous to the area, which in turn means that it had to be imported from Lebanon through some commercial network²⁵. And according to the expert who first examined the boat, the boat was constructed by a professional and accomplished shipwright with expertise much beyond the abilities of an amateur²⁶. This undoubtedly means that the boat was not built by fishermen.

Fishermen, however, were probably responsible for the repairs. Fresh water is the enemy of wooden boats²⁷, and so the wooden boats on the Kinneret would typically need frequent repairs. The repairs, of which there are many, betray very different levels of craftsmanship than that of the original shipwright. There are multiple patches, with a variety of types of wood²⁸ and with a variety of joins, all suggesting *ad hoc* repairs by less than expert craftsmen.

The possession of a boat, whether by ownership or through a lease, was a significant capital asset and it was therefore in the interest of the owner to keep it in good repair and to maximize its use. A letter dated to 257 BCE from Apollonios, the finance minister of Ptolemy II, underscores the value of a boat and the problem with its being idle. Panakestor, one of Apollonios' agents in the Fayûm, had asked to be allowed to have a boat. To this request Apollonios replied that this would be too costly, since the boat was lying idle most of the time. His alternative was to send a boat to the village of

acquired full right of disposal (BGU IV 1157; BGU IV, 1179; P.Lond. III 1164h; P.Oxy. XVII 2136; P.Köln III 147). This form of sale seems only to have applied to larger vessels, and allowed the seller to retain the appearance of title while the buyer gained the full use of the vessel. On this, see D. RATHBONE, *Misthoprasia: The Lease-sale of Ships*, in B. PALME (ed.), *Akten des 23. Internationalen Papyrologenkongresses. Wien, 22.-28. Juli 2001* (Österreichische Akademie der Wissenschaften. Philosophisch-historische Klasse. Kommission für antike Rechtsgeschichte = Papyrologica Vindobonensia, 1), Wien, Verlag der Österreichischen Akademie der Wissenschaften 2007, 587-593.

24. S. WACHSMANN – K. RAVEH – E. AMOS, *The Excavation*, in S. WACHSMANN (ed.), *The Excavations of an Ancient Boat in the Sea of Galilee (Lake Kinneret)* (Atiqot, 19), Jerusalem, Israel Antiquities Authority, 1990, 9-14, p. 13: The boat contained (*inter alia*) lead net weights and a net needle and two stone anchors were found nearby and hence was probably used by fishermen.

25. E. WERKER, *Identification of the Wood*, in WACHSMANN (ed.), *The Excavations of an Ancient Boat in the Sea of Galilee* (n. 24), 65-75.

26. J.R. STEFFY, *The Boat: A Preliminary Study of Its Construction*, in WACHSMANN (ed.), *The Excavations of an Ancient Boat in the Sea of Galilee* (n. 24), 29-47, pp. 38-39, 41-42. See also P.Mich. I 60 (Philadelphia 287/47), a letter from the Zenon archive in which Pais (an employee) writes to Zenon to authorize the repairs ([ναυπη]γῆσα[ι]) of a ship which, he complains, is so old and in need of repairs that no one will travel with it.

27. I owe this observation (*per litt.*) to Jerome Hall, an expert on the reconstruction of ancient ships, and responsible for the restoration of the Kinneret boat.

28. The keel is part cedar, and part jujube; the planks are mainly cedar with some pine; the frames are mostly oak, but also with willow, hawthorn and redbud; the tenons (pegs) are oak. See WERKER, *Identification of the Wood* (n. 25). Further examination of the wood shows carob, sycamore, laurel, Judas tree, Plane tree, and Atlantic terebinth.



Fig. 1. Ginnosar boat (Photo JSK).

Kerke just to the north of the Fayûm where it could be used by boatmen for unstated purposes and that they could lend it to Panakestor whenever he needed it²⁹. We might correspondingly suppose that a fisherman's boat would be used for fishing during the periods of the year that were best suited to fishing – in the Kinneret that meant especially during the period of the winter rains when the Jordan's outflow carried with it a good deal of phytoplankton and the warm springs at Heptapegon were most active in oxygenating the water³⁰. But in the summer and fall the boat would have been used or leased out for other transportation purposes. As I shall note below, one way of taxing fishermen was to record the number of boats they owned (or used) and impose a tax accordingly. If this were the case in the Galilee, it would be in the interests of a fisherman not to allow the boat to sit idle but to maximize the revenue generated from each boat.

Nets and sails were of course also needed for fishing and for this linen was essential³¹. It seems unlikely that either nets or sails were manufactured by the fishermen themselves but instead purchased from weavers. Pollen analysis from the excavations at Bethsaida makes clear that flax was

29. P.Cair.Zen. I 59107 (Alexandria, 18 Nov 257 BCE).

30. On fishing seasons, see E.W.G. MASTERMAN, *The Fisheries of Galilee*, in *PEQ* 40 (1908) 40-51 and F.D. TROCHE, *Il sistema della pesca nel lago di Galilea al tempo di Gesù: Indagine sulla base dei papiri documentari e dei dati archeologici e letterari*, Ph.D. dissertation, Alma Mater Studiorum, Università di Bologna, 2015, pp. 87-89.

31. Oppian *Haliutica* 3.83-84 provides a list of net-types: ἀμφιβλήστρον (casting-net); γρῖφος (draw-net); γάγγαμιον (drag-net); ὑποχή περιήγης (round bag-net); σαγήνη (seine net); κάλυμμα (cover net, perhaps with a fine weave); πέζα (ground-net); σφαιρῶν (ball-net); and σκολιὸς πᾶναγρος (crooked trawl). See the discussion in T. BEKKER-NIELSEN, *Nets, Boats and Fishing in the Roman World*, in *Classica et Mediaevalia* 53 (2002) 215-233, p. 216, and the catalogue of visual depictions of net-fishing.

grown in the area in both the Hellenistic and Roman periods and according to the principal excavator, Bethsaida was also the site of the manufacture of linen³². Linen nets are effective because they are invisible to the fish; but they are also not very durable, which means that they would need to be replaced periodically³³. This implies that the fishing industry was necessarily entangled with flax growers and linen weavers. Net repairs, like boat repairs, however, were probably done by the fishermen themselves, as indeed is suggested by Mark 1,19³⁴. This supposition is further supported by the discovery on bronze net tools both among the shipwrecks of fishing boats off the coast of Haifa and in the Ginnosar boat³⁵.

In addition to boats and nets, fishermen required net weights, usually made from either lead (fig. 2) or stone that had been drilled. Since lead was not indigenous to Palestine it had to be imported from various Mediterranean sites as far away as Spain³⁶. Sheets of unprocessed lead have been found in shipwrecks near Haifa along with moulds for casting net weights, which implies that the casting of net weights was done in Palestine by smithies³⁷. Marine archaeology has also produced other fishing paraphernalia, including grapnels for retrieving lost gear and sounding weights used to determine water depth (both made of lead), and salvage rings made of either stone or lead³⁸. Net mending tools and hooks were of bronze, and these along with baskets or jars for the transport of fish were all likely of local manufacture.

32. Rami Arav, *per litt.* (20.09.2017). Arav suggests that linen production dropped at the beginning of the Hasmonean period (ca. 100 BCE) when the economic orientation of Bethsaida shifted towards the Galilee and the south from the coastal cities of Tyre and Sidon. Nevertheless, since it continued as a fishing village, presumably some form of the linen industry continued to supply nets.

33. A. MARZANO, *Harvesting the Sea: The Exploitation of Marine Resources in the Roman Mediterranean* (Oxford Studies on the Roman Economy), Oxford, Oxford University Press, 2013, p. 29.

34. *Ibid.*, p. 16 reports that skeletal remains from Herculaneum can sometimes be identified as belonging to fishermen, since they show developed musculature of arms and torso, the result of rowing and hauling nets, and wear on the teeth, “compatible with the practice of fishermen holding one side of the fishing net between their teeth to stretch the mesh of the net while repairing it (the other side is held with the big toe, with the fisherman sitting down with his legs outstretched)”.

35. E. GALILI – A.R. ZEMER – B. ROSEN, *Ancient Fishing Gear and Associated Artifacts from Underwater Explorations in Israel – A Comparative Study*, in *Archaeofauna* 22 (2013) 145-166, p. 154.

36. Ezek 27,12 reports that lead was imported to Tyre from Tarshish (Spain). The most important lead mines were Laurion (Achaia), Spain, Sardinia, and Great Britain, with less important sites on Cyprus, Mysia, and Cilicia. See J.D.C. BOULAKIA, *Lead in the Roman World*, in *American Journal of Archaeology* 76 (1972) 139-144.

37. For a discussion of the typology of net weights and a discussion of moulds and casts, see E. GALILI – B. ROSEN – J. SHARVIT, *Fishing-gear Sinkers Recovered from an Underwater Wreckage Site, off the Carmel Coast, Israel*, in *The International Journal of Nautical Archaeology* 31 (2002) 182-201.

38. See *ibid.*



Fig. 2. Lead net weight, Bethsaida found 2011.06 (Photo JSK).

We might also note that different types of nets had differing manpower requirements: a cast net (ἀμφιβλήστρον) could be operated by two or three fishermen from a boat, but a seine net (σαγήνη), which could be 250-300 metres long, might require 6-20 men to bring it to shore (figs. 3 and 4)³⁹.

Thus, we can begin to assemble a picture of the variety of connections and the various productive and labour networks that supplied the fishing industry with its essential tools. The call stories in Mark 1,18-20 and Luke 5,1-11 do not draw any attention to the networks that the first four followers of Jesus abandoned, at least so the story goes; but an understanding of the material necessities of fishing indicate that the industry was at the centre of a large and complex productive network.

ECONOMIC AND LEGAL CONSIDERATIONS

While the modern picture of the fisherman imagines him freely deciding to cast a line into a lake or river, this is also far from the ancient reality. The right to fish, in particular in lakes and rivers, was usually controlled either by the state or by those who owned the land that abutted the water. Many deeds of sale are extant that indicate that fishing rights were treated as property that could be sold or inherited. A deed of sale from Tebtynis in 46-47 CE lists the sale not only of a vineyard with all of its equipment but the irrigation canal, the dyke, a half-share of the reeds, and ἰχθύα, which can only mean the *rights* to fish in the canal⁴⁰. The same year a certain Psyphis and his wife Tetosiris made a division of their property among their four children and one grandson, the two sons and the grandson to receive, among

39. M. NUN, *The Sea of Galilee and Its Fishermen in the New Testament*, Kibbutz Ein Gev, Kinnereth Sailing Co, 1989, pp. 16-21.

40. P.Mich. V 274-275 (Tebtynis 46-47 CE).

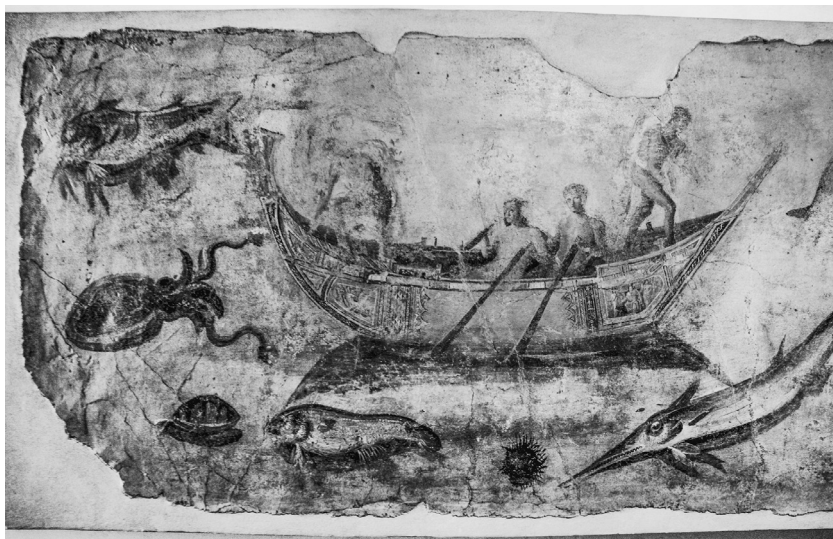


Fig. 3. Fishing fresco, 2nd quarter II CE. Isis, Sarapis and Demeter (stern), Rome, Palazzo Massimo inv. 121462 (Photo JSK).

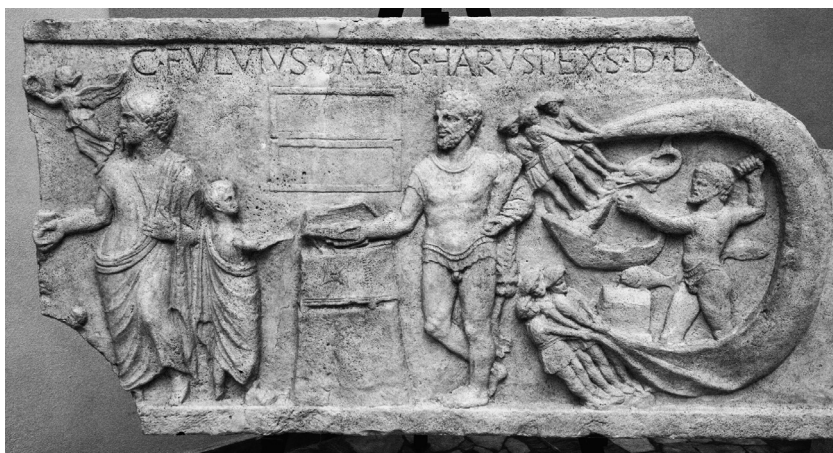


Fig. 4. Ostia antica (inv. SBAO 157, I CE) CIL 1.3027: C(aius) Fulvius Salvis haruspex {s} d(onum) d(at) // [S]ort(es) H(erculis) (Photo JSK)

other things, each a one-third share in a storehouse, water and fishing (rights, ἰχθύας), a dyke, and watchtower and all the appurtenances⁴¹.

Raimund Hakola has urged on the contrary that access to the shore of the Kinneret was likely uncontrolled (and therefore unmonetized) though he

41. P.Mich. V 322.7, 24 (Tebtynis, 46 CE).

concedes that the sale of fish products was likely taxed. He disputes Rostovtzeff's view that fishing rights were tightly regulated and cites evidence to the effect that coastal waters were regarded, at least by Roman jurists, as *res nullius* – the property of no one⁴². It is true that coastal waters do not appear to have been subject to claims of ownership: this idea is at least as early as Plato, who distinguishes between the sea on the one hand, and harbours, rivers, marshes and lakes, on the other (*Leges* 7.824c)⁴³. Ephraim Lytle has recently adduced more evidence to the effect that the sea was treated as κοινόν – as common property and that fish, like birds and wild animals were treated as *res nullius* but “susceptible to ownership by virtue of being captured”⁴⁴. In Roman times, although the power of the state had expanded considerably “there is no evidence in the jurists to suggest that the legal status of the ocean and those reaping its bounty ever changed”⁴⁵.

Hakola takes the Roman evidence to imply that the waters of a sizeable inland lake like the Kinneret would also have been treated comparable to the open sea and therefore as κοινόν⁴⁶. Yet this ignores both Plato's clear distinction between the open sea, on the one hand, which was a common possession, and “harbours and sacred rivers, marshes, and lakes” on the other, which were not. Lytle also points out that while free access to rivers and lakes was protected for purposes of navigation, these rights did not extend to fishing. “Fishing rights in most lakes, rivers, marshes, canals, and even ports, are owned either by the state or, in certain instances, by temples”⁴⁷. One cannot even argue that the Kinneret is analogous to the open sea: in fact it has an area of about 166.7 km², or at most 13% of the size of Lake Moeris in the Fayûm (ranging from 1270-1700 km²), where documentary papyri indicate clearly that fishing rights were held by individuals and the state, sold, inherited, and guarded jealously.

42. R. HAKOLA, *The Production and Trade of Fish as Source of Economic Growth in the First Century CE Galilee*, in *NovT* 59 (2017) 111-130, p. 122.

43. Plato, *Leg.* 7.824c: νόμος δὲ ὅδε: τούτους μηδεὶς τοὺς ἱεροὺς ὄντως θηρευτὰς κωλύτω ὅπου καὶ ὀπηπερ ἂν ἐθέλωσιν κυνηγετεῖν, νυκτερευτὴν δὲ ἄρκυσιν καὶ πλεκταῖς πιστὸν μηδεὶς μηδέποτε ἑάσῃ μηδαμοῦ θηρεῦσαι· τὸν ὀρνιθευτὴν δὲ ἐν ἄργοις μὲν καὶ ὄρεσιν μὴ κωλύτω, ἐν ἐργασίμοις δὲ καὶ ἱεροῖς ἀγρίοις ἐξειργέτω ὁ προστυγχάνων, ἐνυγροθηρευτὴν δὲ, πλὴν ἐν λιμένσιν καὶ ἱεροῖς ποταμοῖς τε καὶ ἔλεσι καὶ λίμναις, ἐν τοῖς ἄλλοις δὲ ἐξέστω θηρεύειν, μὴ χρώμενον ὅπῳ ἀναθολῶσει μόνον, “the law will run thus, – “No one shall prevent these truly sacred hunters from hunting wherever and however they wish; but the night-trapper who trusts to nets and snares no one shall ever allow to hunt anywhere. No one shall bar the fowler from untilled land and mountains, but if one should encounter him in tilled fields or sacred fields, one should drive him off; likewise, a fisherman shall be permitted to fish in all waters except harbors and sacred rivers, marshes, and lakes...”

44. E. LYTLE, *Ἡ Θάλασσα κοινὴ: Fishermen, the Sea, and the Limits of Ancient Greek Regulatory Reach*, in *Classical Antiquity* 31 (2012) 1-55, p. 4. The same view is taken by MARZANO, *Harvesting the Sea* (n. 33), pp. 235-242.

45. E. LYTLE, *Marine Fisheries and the Ancient Greek Economy*, Ph.D. diss., Duke University, 2006, p. 7.

46. HAKOLA, *Production and Trade of Fish* (n. 42), p. 124.

47. LYTLE, *Marine Fisheries* (n. 45), pp. 8-9.

An example of the latter is P.Oxy XIX 2234 from 31 CE, a petition from Hermon son of Demetrios to a centurion about infringement on the fishing rights by some fishermen. The plaintiff reports that he owned land on which there was a public dyke and a cistern in the middle of his property and that seven fishermen and their partners came with gaffs and lines to remove one talent worth of fish. The value of the fish is of course inflated but the complaint presupposes that Hermon owned the fishing rights on the dyke and the cistern and that those rights had been violated.

Even if as Lytle has argued the open sea could not be owned (and therefore access to it leased), the products of the sea were of course taxed. The evidence of a customs house (τὸ τελωνῖον τῆς ἰχθυϊκῆς) constructed in Ephesus between 54 and 59 CE by those engaged in the fishing industry (I.Eph. 20) suggests that while fishermen had free access to the sea, “this right in no way guaranteed that their catch would have free access to the market”⁴⁸. On the contrary, taxes were imposed on the wholesale value of the catch. This is all the more true of the inland fisheries in Egypt.

Taxes on Fishing

Extraction of the value of fishing took several forms. The Ptolemies enjoyed a state monopoly on the fishing resources of Lake Moeris and used fishermen as employees who received salaries and presumably delivered the bulk of the catch to the king. Thus, a Ptolemaic account, P.Tebt. III/1 701 (Tebtynis, 235 BCE)⁴⁹, contains the order,

150 Νίκανδρος Ἀντισθένης Ἀρχιτίμωι [χαίρε]ιν.
δὸς Νεχθαμβῆι Σοκέως ἀλιεῖ ὀψ[ώνια] τοῖς
ἐπὶ σχεδίαι ἀλιεῦσι τοῦ Φαῶφι.

Nikandros Antisthenes to Architimos, greetings. Pay to Nechtambes son of Sokis, the fisherman, the wages (ὀψ[ώνια]) for the fishermen on the rafts for the month of Phaophi.

The term ὀψώνιον normally refers to monthly salary⁵⁰, as it does here and implies that the fishermen in question were employees of the state. A little earlier in the account, other fishermen are mentioned:

86 ια΄. Κόμων Ἀντισθένης Νίκανδρος Ἀρχιτίμωι.
δὸς τοῖς ἐκ Τέπτυος ἀλιεῦσι Πασῦτι

48. E. LYTLE, *A Customs House of Our Own: Infrastructure, Duties and a Joint Association of Fishermen and Fishmongers* (IK, 11.1a–Ephesos, 20), in V. CHANKOWSKI – P. KARVONIS (eds.), *Tout vendre, tout acheter: Structures et équipements des marchés antiques. Actes du colloque d'Athènes, 16-19 juin 2009*, Bourdieu – Athènes, École française d'Athènes, 2012, 213-224, p. 218.

49. GRENFELL – HUNT, *P.Tebt.* III/1: 47-63 (no. 701).

50. See KLOPPENBORG, *Tenants* (n. 17), pp. 570, 579.

Παῶτος καὶ Πασῶτι Πάιτος εἰς δίκτυα
 90 σῆατὰ (δρ.) ν'. τοῦτο δὲ ἀποδώσουσιν ἐκ τοῦ
 α[ῦ]τῶν μέρους θρισσῶν εἰς σ' τῶν κ' (δρ.).

11th (of Hathyr). (Through) Komon. Antisthenes and Nikandros to Architimos. Pay to the fishermen from Teptos, Pasos son of Paos and Pasos son of Pais, for fixed (?) nets 50 drachmae. They shall repay this out of their share of *thrissae* at the rate of 200 for 20 drachmae.

The fishermen appear to have been lent funds for the purchase of nets (which as I have indicated were not especially durable and required frequent repairs and eventual replacement). The fact that they were to repay the loan in *thrissae*⁵¹ out of their share of the catch (ἐκ τοῦ | α[ῦ]-τῶν μέρους) would seem to suggest that they were paid both a salary and allowed to keep some portion of the catch⁵². Yet as Facundo Troche has wryly observed, to repay a loan of 50 drachmae at the rate of ten *thrissae* per drachma, given the fact that later in the account *thrissae* are said to sell at a rate of 70 for 20 drachmae⁵³, “means that the 500 fish would be sold later for about 142 drachmae in total, generating a profit of about 92 drachmae for the office giving the loan” or a 184% return⁵⁴.

Outside of Lake Moeris evidence suggests that in the Ptolemaic period fishermen or large-scale rights-holders independent of the state managed the fisheries and fishing products and paid taxes to the state ranging from

51. The type of fish is unknown, and may not be the same as the contemporary *Clupadon thrissa*, or the Chinese gizzard shad which is indigenous to southeast Asia. The thrissa is mentioned in P.NYU Inv. # 93 (XIVb) published by B. NIELSEN – K.A. WÖRPER, *New Papyri from the New York University Collection: I*, in *ZPE* 133 (2000) 163-186, pp. 177-178.

52. C. PRÉAUX, *L'économie royale des Lagides*, Bruxelles, Fondation Égyptologique, 1939, p. 202.

53. P.Tebt. III/1 701.38-42 (Tebtynis, 235 BCE): [π]αρὰ Δωρίωνος Ἀρχιτίμοι. ἐμβαλοῦ Ἀλεξάνδρῳ θρίσας μυρίας εἰς ὁ' τῶν κ' (δρ.), (ὧν) ἡ (πρώτης) τὰ δύο μέρη, δευτέρα τὸ τρίτον, καὶ ἡ ἀλάβητας Ζ' εἰς ὁ' τῶν κ' (δρ.), τὴν δὲ ἡ τιμὴν λάβε καὶ τὸ δοκιμαστικόν, “From Dorion to Architimos: Embark for Alexandria with 10,000 *thrissae* at a rate of 70 for 20 drachmae, of which two parts are of first quality, and one third is of second quality, and 7,000 *alabètes*, at a rate of 70 for 20 drachmae. and receive the price and the assessment charge”. Similarly in ll. 229-230.

54. F.D. TROCHE, *Fishing in the Lake of Galilee and the Socio-Economic Context of Jesus' Movement*, in A. DESTRO – M. PESCE (eds.), *Texts, Practices, and Groups: Multidisciplinary Approaches to the History of Jesus' Followers in the First Two Centuries: First Annual Meeting of Bertinoro (2-5 October 2014)* (Judaïsme ancien et origines du christianisme, 10), Turnhout, Brepols, 2017, 81-107, p. 91. PRÉAUX (*L'économie royale* [n. 52], p. 205) comments: “Même en tenant compte des frais de transport, qu'il faudra défalquer du prix de vente, et des intérêts que doit produire l'argent prêté, on aperçoit l'un des aspects les plus défavorables de l'économie lagide: l'homme qui produit la richesse royale est exploité.... On se souvient de ce que des procédés analogues se rencontrent dans l'organisation du monopole de l'huile”.

one-quarter – the τετάρτη ἀλιέων tax⁵⁵ – to about 50%, the higher sum perhaps including other charges such as shipping⁵⁶.

Shore Fishermen

From the imperial period onward the references to the τετάρτη ἀλιέων disappear, but that of course hardly means that the state lost interest in revenue from fishing. During the Roman period it is unclear what the rate of taxation on fish was, but there are numerous references to the ἰχθυηρά, a tax on fish usually collected by officials called ἐπιτηρηταί, “supervisors” instead of the more usual πράκτορες⁵⁷.

An interesting subset of the tax documents from the area around Lake Moeris, especially in Soknopaiou Nesos, concerns fishermen who are designated ἀλιεῖς ἀπὸ ποδός. These are probably not fishermen who fish from boats, but shore fishermen who fished in shallower water with casting nets or who fished in the canals⁵⁸. These tax payments are not from individual fishermen, but from fishing guilds.

The particular tax that these shore fishermen paid seems not to have been based on the size of the catch but some other metric (although they may also have paid a portion of their catch). P.Louvre I 36 (Soknopaiou

55. For the τετάρτη ἀλιέων, see BGU VI 1312 (Thebes, 94 BCE); 1313 (Diospolis Magna, 84 BCE); 1314-1315 (Elephantine, 103/2 BCE); 1316 (Elephantine, 102 BCE); 1317-1318 (Elephantine, 99 BCE); O.Leid. 11 (Diospolis Magna, 175 BCE); O.Petrie Mus. 76 = O.Wilck 1347 (Thebes, 97 BCE); O.Wilck. 326 (Thebes, 100 BCE); 337 (Diospolis Magna, 153/142 BCE); 339 (Diospolis Magna, 153 BCE); 340 (Diospolis Magna, 152 BCE); 346 (Diospolis Magna, 85 BCE); 349 (Diospolis Magna, 130 BCE); 1029 (Thebes, 82 BCE); 1233 = C.Pap.Jud. I 107 (Thebes, 135 BCE); 1348 (Thebes, 96 BCE); 1522 (Thebes, 129 BCE); P.Rein II 125 (Hermonthis, 148-84 BCE); and UPZ II 225 = ChrWilck 167 (Thebes, 131 BCE); P.Petr. 3 58 C (Philoteris, Arsinoites, 236 BCE); P.Petr. 3 117.H(2) (Gurob, III BCE); P.Tebt. III/2 841 (Oxyrhyncha, Arsinoites, 114 BCE) and perhaps P.Tebt. III/2 872 (Tebtynis, late III BCE) refer to the τῆν τετάρτην τοῦ ταρίχους, a quarter tax on pickled fish. CPR XXVIII 11 (Herakleopolites, before 191 BCE) refers to the τετάρτη τῶν ναύλων collected by τελῶναι, evidently a boat tax on the value of the grain shipped.

56. Above, n. 19.

57. E.g., P.Tebt. II 359 (127 CE): a report of a ἐπιτηρητῷ ἰχθυηρᾶς δρυμῶν Τεβέτνυ who confirms the payment of 336 silver drachmae by 5 fishermen; P.Fay. 42a.v.1-5 (Theadelphia 229 or 168 or 200 CE): καὶ τῶν ᾽δε παρ' ἐπιτηρητῶν ἰχθυηρᾶς δρυμῶν Τεβέτνυ [±?] ἡ' (ἔτους) [±?] ἡ' διεγρ(άφησαν) ζ' (ἔτους) Παῦ[νι ±?] ἡ' \ ι' [±?], “... paid (?) for the fish tax on the canal of Tebetnu ... collected by the *epitērētai*, ... 8th year ... They paid: for 7th year, Pauni ... (5) 10 drachmae..”; BGU II 485.9-10 (Arsinoites II CE): ἰχθυηρᾶς Δρυμῶν Τεβε[τνυ καὶ Κερκή]λλσεως [...]. See C.A. NELSON, *Official Documents from the Berlin Museum: Report from Supervisors of Fishing*, in *Museum Philologum Londiniense* 2 (1977) 233-243 for a list of documents concerning the ἰχθυηρά and its collection by ἐπιτηρηταί.

58. S.L. WALLACE, *Taxation in Egypt from Augustus to Diocletian* (Princeton University Studies in Papyrology, 2), Princeton, NJ, Princeton University Press, 1938, p. 221. E.g., BGU I 220 (Arsinoites, 203 CE); BGU I 221 (Soknopaiou Nesos, 200 CE); BGU III 756 (Soknopaiou Nesos, 199 CE); and P.Louvre I 36 (Soknopaiou Nesos, 190 CE).

Nesos, 190 CE) reports that the tax payment for the shore fishermen for the 28th year of Commodus (188 CE) was 16 dr. 16 obols, exactly the same amount as that recorded for the next year⁵⁹. Since it is unlikely that exactly the same number of fish were caught in different years, the charge must be based elsewhere. A tax account also from the second century, also from the Arsinoite nome provides a clue⁶⁰. P.Tebt. II 347 includes (*inter alia*) a list of tax assessments for fishing (ἀλιευτικά) for three fishermen. The puzzling figures of 50, 75, and 25 appear in the register, first after the names of three owners (?) of fishing rights and then in conjunction with the three contractors who assumed those rights⁶¹. Zoilas' tax bill has the numeral 50, then 38 drachmae, which was then doubled to produce a total of 77 dr.; 75 appears beside Harthoōnis' name, then 69 drachmae, which is tripled to yield 207 dr., and finally, Nemesion had a single allotment of 25 for 78 drachmae. The aggregate allotment is correctly calculated as 150 as is the total payment of 362 drachmae. Grenfell and Hunt observed that the "figures of 50, 75, and 25 can hardly refer to boats, and the proportion of them to each other does not correspond to that of the several payments"⁶². Wallace had the correct intuition, that the figures correspond to the number of linear feet of canal that each leased, although he did not see that the figures of 38, 69 and 78 must refer to the charge *per 25 foot allotment*, that is $2 \times 25 + 3 \times 25 + 25$. This correctly yields the total footage of 150 feet, and the correct total paid, 362 drachmae. Accordingly, Nemesion's allotment was more costly per foot than the other two, presumably because it produced a higher volume of fish; but Harthoōnis' allotment was much larger and thus far more productive in aggregate. The other two, which differed in length, produced almost of the same volume of fish. This also suggests that the designation of the fishermen as ἀλιεῖς ἀπὸ ποδός likely means 'the fishermen (who are charged) by the foot'⁶³.

59. P.Louvre I 36 (Soknopaiu Nesos, 190 CE): ἔτους λ' Αὐρηλίου Κομμόδου Ἀντωνίνου | Καίσαρος τοῦ κυρίου, Παχὼν ιζ'. διεγρά(φησαν) νο(μάρχη) | Ἀρσι(νοίτου) δι(ὰ) Φλ. ο[] .. () βοη(θοῦ) διπλ(ώ)μα(τος) ἀλι(εύων) ἀπὸ ποδός Σοκνο[πα]ίου Νήσου ὑπὲρ || κη' L [δ]ραχ(μαί) δε(κ)αέξ ὀβολ(οῖ) δεκαέξ, γ(ίνονται) ις' (ὀβολοῖ) ις', καὶ | ὑπὲρ κθ' L ὁμο[(ῖως)] δραχ(μαί) δεκαέξ ὀβολ(οῖ) δεκαέξ, γ(ίνονται) (δρ.) ις' (ὀβολοῖ) ις', "Year 30 of Aurelius Commodus Antoninus Caesar the Lord, Pachons 17. Paid to the nomarch of Arsinoites through Phl.... assistant for diplomas of the fishermen-on-foot of Soknopaiou Nesos, for the 28th year, 16 dr. 16 obols, making 16 dr. 16 obols, and for year 29, likewise 16 drachmae and 16 obols".

60. P.Tebt. II 347.23-29 (Tebtynis, II CE).

61. This fishing allotment is perhaps known by the name of its original owner, C. (?) Trebrius Iustus, a centurion, who lived a century earlier (P.Ryl. II 141, Euhemeria, 37 CE).

62. Grenfell *et al.*, *P.Tebt.* II 181.

63. The disparity between the payments of 80 dr. in March of 199 CE (BGU III 756) and those of the September 200 CE which use the identical payment formulae and total 163 dr. (BGU I 221) is perhaps explicable either because they are the payments of two different contractors (neither receipt provides the name of the payee), or because the charge for shore access was higher in September, just after the inundation had receded.

Boat Taxes

A second method of taxation that occurs in the imperial period was to apply a charge to the fishing boats. The town of Soknopaiou Nesos in the late second century named two supervisors (ἐπιτηρηταί) assigned specifically to the taxing of fishing boats⁶⁴. Earlier in that century an account of tax payments to the nomarch lists refers to the fixed rent (tax?) (ἀποτάκτον) paid on fishing boats that have been marked (τῶν ἐναποσημεν[ομένων]ων ἀλιευτικῶν | π[λ]οίων), evidently some sort of seal or medallion or impress that marked them as authorized to be fishing⁶⁵. The same account refers to the *dekanikon*, apparently a tax support to support the δέκανοι, who policed the waters, inspecting fishing boats to determine whether they were authorized to fish⁶⁶.

A remarkable report from the Hermopolite nome in the second century CE offers a list of tax assessments, village-by-village, listing the fishermen who were believed to be active there, the size of their assessments, and whether or not those assessments had been paid. P.Sijp. 30 is a register of at least 108 lines, naming the fishermen in each village, many of whom are identified as working with partners (μέτοχοι) or family members or as members of a guild (κοινόν) of fishermen. The register lists the assessed tax, followed by a repeated formula, either οἱ τελ(ώναι) σημαίνουσι νυνεὶ τελ(εῖσθαι), “the *telōnai* attest that it has been paid” or οἱ τελῶναι σημαίνουσι μηδ(έν) τελ(εῖσθαι), “the *telōnai* attest that nothing has been paid”, adding an explanation.

In most cases the explanation is a rather elliptical phrase, διὰ τὸ μὴ ὑπάρχ(ειν). Two interpretations are possible: because the register once adds δι(ὰ) τὸ μὴ ὑπ(άρχειν) τὰ πλοῖα (l. 74), “because they do not own the boats” we might assume that the shorter phrase simply abbreviates the longer phrase. For whatever reason, the fishermen are no longer possession of taxable boats. Alternatively, the shorter phrase might indicate that

64. BGU I 10.14-16 (Soknopaiou Nesos, Arsinoites, 192-193 ce): πλοίων ἀλιευτικῶν· ἢ Ἀρπαγάθης Στοτοήτεως. | Καλαχῆς Στρατωνίτης.

65. Stud.Pap XXII 183.35-39 (Soknaiporaiou Nesos, 138 CE): καὶ εἰς τὸν τῆς νο[μαρχ]ῆς [λογόν] ὑπὲρ ἀποτάκτου | τῶν ἐναποσημεν[ομένων]ων ἀλιευτικῶν | π[λ]οίων (δρ.) χκε' (ὀβολός) αΕ | ὑπὲρ δεκανικοῦ τ[ῶ]ν [προκειμένων] πλοίων (δρ.) ξ' | (γίνονται) (δρ.) χπε' ΙΕ, “and (paid) to the account of the nomarch for the fixed rent on the fishing boats that bear a seal, 625 drachmae 1 obol; for the *dekanikon*, for the above-mentioned boats: 60 drachmae, making 685 drachmae 1 obol”. Ἐναποσημαίνω is a *hapax legomenon* but related to ἄση(μος), “without distinguishing marks” that appears frequently to indicate a person who bears no distinguishing marks or scars: BGU I 54 (Karanis, 161 CE); BGU I 76.8 (Soknopaiou Nesos, II/III CE); I 97 (Soknopaiou Nesos, 144 CE); I 90 (Soknopaiou Nesos, 161 CE); and *passim*.

66. Thus WALLACE, *Taxation* (n. 58), p. 219. See also BGU I 337.27-27 (Diospolis Magna, 153/142 BCE): καὶ εἰς τὸν τῆς νομαρχίας λόγον [ὑπὲρ τῶν] προκειμένων ἀλιευτικῶν πλ[οίων] | χκε' ΙΕ | δεκανικοῦ ὁμοίως τῶν αὐτῶν πλοίων | ξ', “paid to the nomarch's account for the above mentioned tax on fishing boats, 625 dr. 1 obol; for the *dekanikon*, likewise on the same boats, 60 dr.”.

the *telōnai* are reporting that the non-paying fishermen are entirely without resources⁶⁷.

A few other explanations for non-payment are given: two fisherman is said to have decamped (*ἀπαράστατος, ἀπ[όντ]ος*, l. 32, 62) and a fishermen's guild relocated (*μεταβεβηκέναι*) to another village (ll. 56-57). Interestingly in many of the instances in which a fisherman is said not to have paid, an addendum indicates that at least some of the tax was paid either by villagers⁶⁸ or the local fishermen's association⁶⁹.

The account is silent as the reasons why some have moved and others no longer have boats (or any resources). It is known that fishing declined in Tebtynis in the second century CE owing to the draining of a nearby marsh⁷⁰; but that could not account for a decline in Hermopolis, which was on the Nile⁷¹. In the very late second century the *κωμογραμματεὺς* of the village of Thmouis in the Delta reports that of the 31 fishermen who had been in the village, some had died and others had been killed by insurgents, leaving only five (P.Thmouis I 116). The names of the deceased, accordingly, were removed from the tax rolls⁷². But no such cause is hinted at by P.Sijp. 30.

In spite of the puzzles that remain with P.Sijp. 30, it tells us a good deal about fishing along the Nile. At least three types of fishermen are identified, *ἀμφιβολεῖς* (cast net fishermen, ll. 40, 75), a *σαγηνευτής* (seine-net fisherman, l. 45) and others who are simply called *ἀλιεῖς* (ll. 41, 52, 55, 60, 64). The account seems to be organized around the tax on boats, some of which are said to be owned by the fishermen and others, presumably, rented or leased. The tax on boats is not consistent, but ranges between 32 dr. and 160 dr., perhaps reflecting the size of the boat. The fishermen's guilds, however, are assessed at much higher rates (300, 500 dr.) probably because they collectively represented more boats.

Despite the large number of entries in the account that indicate non-payment of the tax, the editors point out that tallying up the three columns that are legible indicates that 73% of the assessed tax was eventually paid⁷³, the arrears being made up by a combination of payments from

67. J. RUDHARDT – P. SCHUBERT, *Registre de pêche*, in A.J.B. SIRKS – K.A. WORP (eds.), *Papyri in Memory of P.J. Sijpesteijn (P. Sijp.)* (American Studies in Papyrology, 40), Oakville, CT, American Society of Papyrologists, 2007, 200-210, p. 201.

68. Ll. 33-34 ὑπὸ τ[ών ὄντ]ων ἐν τῇ κώμῃ; l. 102: ὑπὸ τῶν πρεσβ(υτέρων) τῆς κώμης.

69. L. 40: ὑπὸ ἀμφιβολέων; l. 42: ὑπὸ ἀλιέων τ[ῆς κώμ]ης; l. 51: ὑπὸ μεταβόλ(ων) καὶ παντοπώλ(ων); l. 56-57: ὑπὸ μεταβόλ(ων) τῆς κώμης; l. 75: ὑπὸ ἀμφιβολέων.

70. H. MELAERTS, *Pêche et pêcheurs à Tebtynis à l'époque romaine*, in L. CRISCUOLO – G. GERACI (eds.), *Egitto e storia antica dall'ellenismo all'età araba: Bilancio di un confronto. Atti del colloquio internazionale, Bologna, 31 agosto-2 settembre 1987*, Bologna, Clueb, 1989, 559-564.

71. Thus RUDHARDT – SCHUBERT, *Registre de pêche* (n. 67), p. 202.

72. P.Thmouis I 116 (Thmouis, 180-192 CE).

73. RUDHARDT – SCHUBERT, *Registre de pêche* (n. 67), p. 202.

retailers (παντοπώλαι, ll. 31, 51, 121), villagers (ll. 33-34), fishing associations (ll. 40, 42, 51, 75) and a pickled fish merchant (l. 121). Crucially for our purposes, the account also makes clear that the state exercised a good deal of surveillance of fishermen: the account presupposes that the names and expected taxes payable by each had been generated from the previous years' tax rolls. Hence the names of those who were no longer active in the industry had to be noted and explained. The same conclusion can be drawn from the report of the κωμογραμματεὺς in P.Thmouis I 116: he had a complete list of fishermen from the village and so could report on both the names of the deceased and the survivors. It was critical for the state to know who was authorized to fish, who was active, who could be expected to pay taxes, and who could not.

Lease of Fishing Rights

From the Imperial period several leases of fishing rights are extant, the earliest of which is P.Oxy XLVI 3267 (37-41 CE). The lease stipulates that the lessor and the lessee will receive half-shares (κατὰ τὸ ἥμισυ) of the catch, provided that the lessee supply all of the fishermen needed. This presupposes that the lessee is himself a contractor who has either partners or hired works that he can call upon to fulfil his part of the contract⁷⁴. Another lease, P.Oxy XLVI 3269 (III CE), also on the basis of shares, required that the lessor provide the nets, boats and fishermen (!). Perhaps because of this rather unusual condition, the lessor was to receive three-quarters of the catch as well as an unspecified cash rent that was to be paid as soon as the lease was validated.

Just as common are leases that involved a cash payment by the lessee⁷⁵. Typical is a lease from Oxyrhynchus in 161 CE. P.Turner 25 records the lease of fishing rights by three fishermen who lease the rights to "all the fish" that are in the reservoirs belonging to the lessor for one year for a rent of 172 drachmae plus eight drachmae for *opsologion*. The rent was paid in advance and the lease stipulated that the lessor was still required to pay the public charges on his land. The reference to the *opsologion* is rather puzzling, normally referring to a one-twelfth tax on pickled fish that was imported into a city⁷⁶. But the figure of eight drachmae, as the first editor notes, does not correspond to any "manageable fraction of the

74. The *editio princeps* (*The Oxyrhynchus Papyri*, vol. XLVI [London, 1978], 2) restores ll. 6-9 as ἐργατείας καὶ τῆς ἰ [±12] σ' πάσης ἐκάτερον [μεταδο]ῦναι καὶ παντὸς τοῦ πελ[ριγινόμε]νου ἰχθύος, "that each of them shares the supply of fishing tackle 9?) and all....", taking ἐργατείας to mean 'tackle'.

75. P.Oxy XLVI 3268 (II CE): fixed rent of 200 dr. and a jar....; P.Oxy XLVI 3270 (309 CE) a cash payment of 14 talents, 3000 dr., obliging the lessees to supply the fishermen and nets; P.Wisc. 16 (Oxyrhynchus, 210/11 CE): cash payment and two jars of *thrissae* and six jars of *garum*.

76. WALLACE, *Taxation* (n. 58), pp. 270-271.

172 dr. (2/43) nor the 180 dr. (2/45) and it is therefore unlikely to be a charge on the value of the lease”⁷⁷. The charge seems rather to be a small tax that was payable by the owners of fishing rights, who then passed the tax along to the lessees.

A typical provision of a lease is the stipulation that once the lease has been ratified neither party is able to change or abandon its provisions⁷⁸. The fragmentary lease (mentioned above), P.Oxy XLVI 3267.12-15 (37-41 CE), has the beginning of the formula:

μηδενὶ δὲ τῶν
[ὁμολογ]οῦντων ἐξόντος πα-
[ραβαίνειν] τι τῶν ὁμολ[ογηθέν-]
15 [των] [.] [.] [±10]

None of parties to the agreement is able to any transgress any of the provisions that have been agreed to...

In a second century lease of fishing rights from Karanis, the lessee confirms that he has agreed to the terms of the lease and the one-quarter share of fish that it provides for, adding the declaration,

[ο]ὐ[κ ο]ὔσης μοι ἐξουσίας
20 [προλείπ]ειν τὴν μίσθω[σι]ν, ἀλλ’ οὐδὲ ὑμ[ε]ῖς ἴν
[ἐκβάλλε]ι[ν] με [ἐξ] αὐ[τ]ῆς δι[α] τὸ ἐκ προτροπῆς ὑμῶν
[προσελεῖ]ν τῇ [μι]σθώσει ἐφ’ ᾧ ε[.] [.] τῆς ὁπότε ἐάν
[±14] ἐπιβαλλ[.....] [.] [.] αἰμα
[±10]τ. μετὰ τῆς δοθείσης υφῆ (P.Oxf. 12 Karanis, 153-154 CE)

I will not have the right (20) to abandon the lease, nor will you expel me from the lease because of your inducement to apply myself to the lease on the condition ... whenever ... expel ...

The issue of whether the lessor or the lessee was responsible for paying the tax on fish remains rather unresolved. P.Turner 25 (above) suggests that the lessee was likely not responsible for the payment of public charges on the land or canal or shore that was being leased, but the same lease implies that the lessor had passed on to the tenant a small charge to which he might otherwise be subject. This leaves the question of whether in the

77. A. BÜLOW-JACOBSEN, in P.J. PARSON – J.R. REA (eds.), *Papyri: Greek & Egyptian Edited by Various Hands in Honour of Eric Gardner Turner on the Occasion of His Seventieth Birthday* (P.Turner) (Graeco-Roman Memoirs, 68), London, Egypt Exploration Society, 1981, p. 126.

78. See the analogous provisions of agricultural leases, which prohibit the abandoning of the objects of lease within the period of the lease: μὴ ἐξεῖναι τῷ μεμισθωμένῳ ἐντὸς τοῦ χρόνου ἐγλιπεῖν (προλιπεῖν, καταλιπεῖν) τὴν μισθώσιν, “the lessee shall not be permitted to abandon the lease within the lease period”: BGU IV 1119.27 (6/5 BCE); 1121.28 (5 BCE); 1122.21 (13 BCE); CPR I 244.19 (II/III CE); P.Col. VII 179.16 (300 CE); P.Mert I 10.15 (21 CE); P.Oxy. IV 729.20 (137 CE); P.RossGeorg II 19.45 (141 CE); P.Soter. 1.17-18 (69 CE); P.Soter. 2.15-16 (71 CE); SB 14.11279.29-30 (44 CE).

case of contracts that included the lessor and lessee sharing the catch, who would be responsible for the tax payment – would they be split in proportion to the lease sharing agreement – and in the case of leases that provided for a cash rent to be paid to the lessor, whether the lessee was responsible for the payment of all charges on the catch.

That the latter was the case is suggested by P.Oxy XLVI 3268 (II CE), in which a lessee declared to the local ἐπιτηρηταί of Oxyrhynchus that he had assumed the lease on the fishing rights of a canal for a rent of 200 dr. and the payment of a jar perhaps of pickled fish or garum (the text breaks off here). The same conclusion is suggested by a tax receipt issued by the inspector of fishing taxes in the marshes (ἐπιτηρητῷ ἰχθυ<η>ρας δρυμῶν Τεβέτνυ) in Tebtynis, P.Tebt. II 359 (126 CE) to five or six fishermen for a monthly payment of 336 drachmae⁷⁹. Parenthetically, on the assumption that the fishing tax amounted to about one half of the catch (see below), the receipt implies that the total receipts for the fish caught in Mesore (August) was over 650 drachmae or over 100 drachmae per fisherman per month⁸⁰.

Fishing offers a special challenge to tax collection. In the case of cereal, olive, and grape crops, the crop could be evaluated for taxation purposes as it neared the harvest season. For fishing, however, since fish are perishable once caught, they had to be removed to market or to those who produced pickled fish or garum immediately upon being caught. This in turn meant that the size of each catch had to be evaluated for purposes of taxation daily, and this meant the presence of ἐπιτηρηταί.

A remarkable papyrus is extant from the early second century representing either the book of an ἐπιτηρητής observing a fisherman or perhaps a fisherman's record of the daily catch. P.Oxy XLIX 3495, consisting of seven well-preserved columns, lists receipts and payments for 21 days from Paophi 11 to Hathyr 1 (Oct 8/9-28/29). Each day is divided into a number of 'casts' (βόλοι), ranging from three to eleven per day, and a monetary amount is assigned to the value of each 'cast'. The individual casts vary from 1 drachma 1 obol to a high of 80 drachmae, and the daily totals range even more dramatically from a low of about 27 drachmae to over 350 in one day, the higher figures all appeared in the last three days of Phaophi. For the 21 day period income of about 1700 drachmae is reported.

Each day contains deductions, in particular one introduced with the phrase ἀφ' ὧν θεαγῶ, (from which a payment to the *theagos* is deducted).

79. The editors (P.Tebt. II 195) take the phrase εἰς ἀρίθ(μην) τ]οῦ αὐτοῦ | μην[ός in ll. 3-4 to mean that this is the payment of an instalment on the tax account.

80. That the lessee was responsible for payment of the fish tax is also suggested by P.Fay. 42a.v.1-5 (Theadelphia, 229 or 168 or 200 CE) and BGU II 485 (Arsinoites II CE), a tax account including a notation, παρὰ μισθωταῖς ὄντων | ἰχθυηρᾶς Δρυμῶν Τεβε[τν]ὺ καὶ Κερκή]]||σεως [...], "fish tax from the lessees of the marshes of Tebetnu and Kerkesis".

The amount of the daily deduction, ranging from 1 dr. 1 obol to 24 drachmae, bears no recognizable relation to the daily totals, and may, in the opinion of the editor relate to some service or perhaps boat rentals. *Opso-logia* are listed for Paophi 11-15. If the document is a report of the ἐπιτηρηταί it records additional tax income, but only for the first five days of a 21 day period and there are three entries for Paophi 13; if it is a fisherman's log it might record some sort of income, for example from the sale of pickled fish⁸¹. Moreover, for Paophi 21 and 24-27 unspecified values of the catch are designated as εἰς ταριχία, "for pickling", which perhaps implies that whatever was so designated is not subject to a fishing tax, since that tax would be paid by the fish processors.

Facundo Troche has described the scene implied by P.Oxy XLIX 3495:

To produce these kind accounts on a day to day basis, we must imagine that the government supervisors or tax-farmers were standing on the shore counting the catch as it is brought in, recording the value of each catch. Since the results of every catch are expressed in currency and fresh fish is highly perishable, it is highly likely that the fish was being sold immediately, probably as wholesale, and the supervisor was able to record the exact amount of money produced, or at least evaluate the catch and establish its price on the spot. In addition to the supervisor posted on the harbour, there would likely have been others controlling different areas of the shore to prevent the fishermen from unloading their ships in unauthorized places in order to avoid the payment of the taxes or the state/temple shares⁸².

The continuous monitoring of the fishing industry corresponds to the fact that the ἐπιτηρηταί were required to render accounts of their assessments daily and in five days blocks. Hence, a series of papyri from Theadelphia in the mid-second century from the supervisors of fishing take the form⁸³,

λόγος τῶν
[περιγεγ]ονότων ἀπὸ τῆς προκιμένης
[ἐπιτηρή]σεως ἀπὸ θήρας ἰχθ(ύας) τῶν ἀπὸ
[κς ξω]ς λ' τοῦ Φαμεν[ω]θ [μη]νὸς τοῦ
15 [ἐνεστ]ῶτος ιβ' L Ἀντωνίνου Καίσαρος τοῦ κυ-
[ρίου.] ἔστι δὲ·
κς' [(δρ.) κ]δ' (ὀβολοὶ) κς' κς' [(δρ.) λς'] (ὀβολὸς) α'
κη' [(δρ.) λ]ς' (ὀβολοὶ) ιγ' κθ' [(δρ.) κη'] (ὀβολοὶ) ιβ'

81. This is the suggestion of the editors, A. BÜLOW-JACOBSEN – J.E.G. WHITEHORNE, *The Oxyrhynchus Papyri, Volume XLIX* (Graeco-Roman Memoirs, 69), London, Egypt Exploration Society, 1983, p. 218.

82. TROCHE, *Il sistema della pesca* (n. 30), p. 104.

83. See P.Oslo III 89 (Paophi 21-26, 138 CE); P.Oslo III 90 (Paophi 26-30, 138 CE); P.Oslo III 91 = PSI III 160 (Paophi 26-30, 149 CE); PSI VII 735 (Hathyr 21-25, 138 CE). P.Oslo III 92 (120 CE) is a fragmentary report to the nomarch from one ἐπιτηρητής for the entire monthly tax income from Hathyr 6 to Choiach 6.

[λ' (δρ.) κη'] (ὀβολοὶ) κα', γ(ίνονται) [τῆς πενθ(ημερίας) (δρ.) ρ]ξ' (ὀβολοὶ) ιδ',

Account of income from fishing from the aforementioned supervision of the fishing tax from the 26th until the 30th of the month of Phamenoth (March) of the current 12th year of Antoninus Caesar the Lord. This is as follows: 26th: 24 drachmae 26 obols; 27th: 36 drachmae 1 obol; 28th: 36 drachmae 13 obols; 29th: 28 drachmae 12 obols; 30th: 28 drachmae 21 obols, making for the five day period, 160 drachmae 14 obols. (P.Oslo III 91 = PSI III 160, Theadelphia, 27 March 149 CE)⁸⁴.

The reports are typically filed not by one ἐπιτηρητής but by no fewer than four plus their 'partners' (μέτοχοι) and point to the intensive surveillance of the fish tax by local administrators. The account continues:

20 [ἐξ ὧν ἄλγεῖσι ὑπὲρ μισθῶν (δρ.) π' (ὀβολοὶ) ζ', λοιπ(ὸν)]
[(δρ.) π' (ὀβολοὶ) ζ'.] Π[τολεμαῖος Διοδώρου ἐπιδέδωκα.]

of which 80 drachmae 7 obols went to the fishermen as wages; remaining: 80 drachmae 7 obols. Ptolemaios son of Diodoros has submitted this.

This account does not indicate the number of fishermen who produced this income, but the incomes are comparable to the day-totals of lower yields from P.Oxy XLIX 3495. If one were to suppose that five fishermen were involved, this would imply 80-100 drachmae per month income.

FISHING IN ROMAN PALESTINE

I have lingered over these details because they help to underscore the strong social, administrative, economic, and legal ties that fishermen had. Fishermen were firmly anchored in a network of suppliers of materials – boats, linen, nets, sinkers, pottery, baskets, hooks and net tools. If they operated seine or drag nets, they had to have access to a larger labour force in order to bring in the catch. They were bound in economic relationships to local administrators who kept track of the fishermen in their area and expected yearly payment of boat taxes. While they were fishing they were surveilled by the tax supervisors or the lessor's agents who had an interest

84. Firenze, Biblioteca Medicea Laurenziana, BML inv. 13791. A.C. JOHNSON, *Roman Egypt to the Reign of Diocletian*, vol. 2 of T. FRANK (ed.), *An Economic Survey of Ancient Rome*, Baltimore, MD, Johns Hopkins University Press, 1936, p. 378, no. 224. T. KRUSE, *Der königliche Schreiber und die Gauverwaltung: Untersuchungen zur Verwaltungsgeschichte Ägyptens in der Zeit von Augustus bis Philippus Arabs (30 v.Chr. – 245 n.Chr.)* (Archiv, Beiheft 11), München – Leipzig, Saur, 2002, pp. 625-626, n. 1758, p. 982; F. REITER, *Die Nomarchen des Arsinoites: Ein Beitrag zum Steuerwesen im römischen Ägypten (Pap.Col. XXXI)*, Paderborn, Schöningh, 2004, p. 194, n. 63, 64, pp. 195-197. The drachma here is equivalent to 7 obols.

in taking note of the size of daily catches. And their leases bound them in legal relationships to lessors that prohibited them from abandoning their fishing lease before its prescribed termination.

Were Galilean fishermen like those we know from Egypt? Probably not in all respects. But it would seem rather unlikely that the fishing industry in the Galilee was entirely unregulated and free from the kinds of legal and administrative surveillance that was characteristic of Egypt and richly evidenced in contemporary documentary papyri. At a minimum we have to assume that fishing rights were owned either by Herod Antipas and Herod Philip or by large landowners, and then leased to fishermen, in particular in the northern area of the Kinneret from Taricheae and Gergesa and especially around Heptapegon and the shelf in front of Bethsaida, which are the most productive parts of the lake⁸⁵. Access to these parts of the lake was likely granted through the control of the various moles whose positions were mapped when the Kinneret dropped below –211.5 metres⁸⁶. The lessors of these rights naturally had an interest in monitoring the size of the daily catches so as to ensure that the lessor received the value of the catch stipulated by the lease – probably not much less than one-half of the catch, and perhaps as much as three-quarters⁸⁷. It is also a priori likely that local administrators had likewise an interest in the tax revenue that was generated by fishing. Whether Galilee had adopted the regime of reporting the catch every five days is unknown, but that either the fishermen themselves, or an administrative agent would produce a daily log of casts similar to that of P.Oxy XLIX 3495 is entirely plausible, especially given the perishable nature of fish.

Evidence also suggests that fishing on the Kinneret was at least as important a part of the Galilean economy as was Lake Moeris in the Fayûm. Strabo (*Geog.* 16.2.45) comments that “at the place called Taricheae the lake supplies excellent fish for pickling (ἡ λίμνη μὲν ταραχέας ἰχθύων ἀστείας παρέχει); the appropriateness of this remark is underscored by the fact that the name of town was changed from its older Israelite name, Migdal/Magdala to Taricheae, literally, the place of *tari-chos*, pickled fish. Excavations at Migdal have uncovered several plastered, rectangular pools that may have been used for holding fish⁸⁸.

85. MASTERMAN, *The Fisheries of Galilee* (n. 30); NUN, *Sea of Galilee and Its Fishermen* (n. 39), p. 14.

86. See M. NUN, *Sea of Galilee: Newly Discovered Harbours from New Testament Days*, Revised edition, Kibbutz Ein Gev, Kinnereth Sailing Co, 1989. Mapping was possible when the lake level dropped in the 1970s to –211.5 metres below sea level (in 2001 it hit –215 metres).

87. Contrast the view of HAKOLA, *Production and Trade of Fish* (n. 42), p. 124 “...it is probable that fishermen, Jews as well as non-Jews, from different administrative areas were able to practice their profession on the lake without the intrusion of patrolling officials. It is not likely that any kind of central authority would have issued fishing licenses and then tried to control where Galilean fishermen from various cities or towns around the lake laid their nets”.

88. The excavator Marcela Zapata Meza has informed me (per litt. 29.08.2017) that analysis of the plaster failed to produce any evidence of the manufacture of *garum* or *tari-chos*.

It has been pointed out that fish bones have been found at many archaeological sites – not only around the lake – and that the demand for fish appears to have increased in the Roman period⁸⁹. So high was the demand, it would seem, that local fisheries (both in the Kinneret and on the coast) could not keep up with the demand, with the result that salt water fish bones are found in Tel Heshban located far from the coast on the Madaba plateau, and that freshwater species from the Kinneret and Jordan were being transported there⁹⁰. Fradkin notes that in Sepphoris bone assemblages indicate that fish was imported both from the Mediterranean coast and from the Jordan river system⁹¹. This material evidence suggests that the fishing industry around the Kinneret was thriving, and that accordingly, fishermen were also thriving.

The sparse evidence we have also suggests that fishermen on the Kinneret were likely organized collectively as they were in Egypt and elsewhere in the Mediterranean⁹², either into family-based operations or forming occupational guilds. Mark 1,16-20 suggests the former, identifying Simon and Andrew as brothers, and James, John and their father as a family group; Luke's reference to the Zebedees and Simon being partners (μέτοχοι, κοινωνοί, Luke 5,7.10) suggests that Luke imagined them to function as an occupational guild⁹³.

If Egyptian evidence provides any guide, it does not seem that fishermen were the impoverished lot that some scholars suggest, but instead that they enjoyed a modest income, certainly above the level of agricultural workers who were hired on a daily basis. The income levels of Egyptian fishermen of P.Oslo III 91 are 160 drachmae for a five day period. If we reduce this by half to take into account the tax on fish, one is still left with 80 drachmae, divided between several partners, which over a 30 day

89. J. LEV-TOV, "Upon what meat doth this our Caesar feed..?" *A Dietary Perspective on Hellenistic and Roman Influence in Palestine*, in S. ALKIER – J. ZANGENBERG (eds.), *Zeichen aus Text und Stein: Studien auf dem Weg zu einer Archäologie des Neuen Testaments* (TANZ, 42), Tübingen, Francke, 2003, 420-446, p. 436.

90. A. VON DEN DRIESCH – J. BOESSNECK, *Final Report on the Zooarchaeological Investigation of Animal Bone Finds from Tell Hesban, Jordan*, in Ø.S. LA BANCA – A. VON DEN DRIESCH (eds.), *Faunal Remains: Taphonomical and Zooarchaeological Studies of the Animal Remains from Tell Hesban and Vicinity* (Hesban, 13), Berrien Springs, MI, Andrews University Press, 1995, 98-99.

91. A. FRADKIN, *Long-Distance Trade in the Lower Galilee: New Evidence from Sepphoris*, in D.R. EDWARDS – C.T. MCCOLLOUGH (eds.), *Archaeology and the Galilee: Texts and Contexts in the Graeco-Roman and Byzantine Periods* (South Florida Studies in the History of Judaism, 143), Atlanta, GA, Scholars, 1997, 107-116.

92. MARZANO, *Harvesting the Sea* (n. 33), pp. 37-50, 73-79.

93. Note the use of μέτοχοι in the references to fishermen guilds in IMT Kyz Kapu Dağ 1539 (Parion, I BCE); O.Wilck. 326 (Thebes, 100 BCE); P.Sijp. 30.49 (Hermopolis, II CE): Φατρῆς καὶ οἱ [μετό]χοι.

period will amount to income well in excess of the 15-20 denarii per month that a day labourer might receive⁹⁴.

More than fifty years ago George Wesley Buchanan, commenting on 2 Cor 6,9, “Jesus though he was rich, yet for your sakes he became poor, so that by his poverty you might become rich” suggested that Jesus in fact oriented his teachings to what he called the “upper class”, referring to the evidently wealthy centurion in Luke 7,1-10, the wealthy first citizens (πρῶτοι who appear repetitively in Matt 18-25, Luke’s ἄρχων τῆς συναγωγῆς (8,41), the chief tax collector in Luke 19, Mark’s tax collector Levi in Mark 2,13-14 and Joseph of Arimathea, who Matthew describes as ἄνθρωπος πλούσιος (27,57) and a disciple⁹⁵. This characterization on the one hand neglects the editorial tendencies of both Matthew and Luke, to which Frans Neirynck was so attentive, and their propensities to shift the social and cultural registers of Jesus and his immediate entourage upwards. And it naively imagines ancient society as divided horizontally in to upper and lower classes, reflecting conceptual misrepresentations of ancient society that have influenced scholarship of Christian origins since the time of Kautsky and Deissmann⁹⁶. More recent scholarship has contested this binary model of ancient society, pointing out that below the 1-3% of ancient society that comprised the curial sectors there was a wide range of economic registers from those at the subsistence level to others to enjoy perhaps ten times subsistence⁹⁷.

In spite of the mischaracterization of the ancient economy, Buchanan does have a point. We should imagine fishermen as belonging to the “above-subsistence level”, though certainly not “upper class”. And it is worth pondering that many of Jesus’ parables feature persons of at least moderate wealth, and sayings such as the “measure for measure” saying (Q 6,38; Mark 4,24) make less sense if we imagine them as directed at

94. It is often supposed that one denarius per day was usual in the first century, but this is largely based on Matt 20,1-16. Known wages range widely from about one-half a denarius to 1 denarius per day. See KLOPPENBORG, *Tenants* (n. 17), p. 573.

95. G.W. BUCHANAN, *Jesus and the Upper Class*, in *NovT* 7 (1964) 195-209, pp. 205-206.

96. K. KAUTSKY, *Der Ursprung des Christentums, eine historische Untersuchung* (Internationale Bibliothek, 45), Stuttgart, Dietz, 1908; A. DEISSMANN, *Das Urchristentum und die unteren Schichten*, Göttingen, Vandenhoeck & Ruprecht, 1908; ID., *Licht vom Osten: Das Neue Testament und die neuentdeckten Texte der hellenistisch-romischen Welt*, Tübingen, Mohr, 1908.

97. E.g., R.P. DUNCAN-JONES, *The Structure and Scale of the Roman Economy*, Cambridge, Cambridge University Press, 1990; A. WALLACE-HADRILL, *Houses and Society in Pompeii and Herculaneum*, Princeton, NJ, Princeton University Press, 1994; G. KRON, *Anthropometry, Physical Anthropology, and the Reconstruction of Ancient Health, Nutrition, and Living Standards*, in *Historia* 54 (2005) 68-83; W.M. JONGMAN, *The Early Roman Empire: Consumption*, in W. SCHEIDEL – I. MORRIS – R.P. SALLER (eds.), *The Cambridge Economic History of the Greco-Roman World*, Cambridge – New York, Cambridge University Press, 2007, 592-618; W. SCHEIDEL – S.J. FRIESEN, *The Size of the Economy and the Distribution of Income in the Roman Empire*, in *JRS* 99 (2009) 61-91.

the abjectly poor than if we suppose that they have in mind those with at least some resources over which they have discretionary use. Fishermen might imaginably belong to such a social and economic register.

Finally, it is worth pointing out that the ways in which the fishing industry was structured and the very character of fishing meant that fishermen were necessarily and continuously entangled with other productive networks of net makers, and suppliers of essential tools, with lessors, and with officials who represented local governments with interests in tax extraction. In contrast to the production of cereal and fruit crops (including olive and grapes), where the product of the industry was simply harvested in a few weeks and needed monitoring only at harvest time, fishing required constant and continuous interaction with agents of the lessor and local administrators.

One might be tempted to regard the high degree of network connectivity as a profound disadvantage of the industry. However, this characteristic of fishing also meant that it generated around itself an active *network* of groups and persons connected to the industry. In addition, as Rodney Stark and others have shown, elective cults travel through networks, because they disseminated not anonymously, but through face-to-face contacts⁹⁸. They “jump” from one local network to another precisely through the kinds of network intersections that were created by the necessity of fishermen engaging with tax collectors, or with the manufacturers of nets or net weights or agents of the lessors. It is perhaps because of the instrumental role that fishermen, tax supervisors, and their network connectivity played in the dissemination of the early Christ cult that of the early named members of Jesus’ entourage, it is only fishermen and tax collectors who are identified specifically in relation to their trade.

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ABSTRACT. — Comparison of the Galilean fishing industry with that of the Graeco-Egyptian industry as it is reflected in numerous documentary papyri offers several important conclusions about the organization and profitability of fishing and the degree to which fishermen were embedded in other economic networks.

98. R. STARK – W.S. BAINBRIDGE, *Networks of Faith: Interpersonal Bonds and Recruitment to Cults and Sects*, in *American Journal of Sociology* 85 (1980) 1376-1395; R. STARK, *The Rise of Christianity: A Sociologist Reconsiders History*, Princeton, NJ, Princeton University Press, 1996. More recently, COLLAR, *Religious Networks* (n. 4); C.W. CONCANNON, *Assembling Early Christianity: Trade, Networks, and the Letters of Dionysios of Corinth*, Cambridge, Cambridge University Press, 2017.

First, the requirements of fishing meant that fishermen were necessarily connected with multiple “upstream” suppliers of materials essential to fishing and also to intensive supervision and surveillance of landlords and tax officials. Second, some data suggest that fishermen likely enjoyed a level of income well above subsistence. Third, the fishing industry had multiplex connections with other social and economic sectors. It is perhaps because of the instrumental role that fishermen, tax supervisors, and their network connectivity played in the dissemination of the early Christ cult that of the early named members of Jesus’ entourage, it is only fishermen and tax collectors who are identified specifically in relation to their trade.