

Fishing for Profit

P.Horden and N. Purcell *The Corrupting Sea. A study of Mediterranean History*, Oxford 2000, 190-197, 576-578

1. Fish in Mediterranean Eco-Systems

N.Purcell, Eating fish: the paradoxes of seafood, in J. Wilkins, D. Harvey and M. Dobson edd. *Food in Antiquity* Exeter 1995, 132-149

- stocks vary by depth, location and salinity within the Mediterranean
N.B. Mediterranean evaporation relative from riverine inflow, consequences for salinity, currents.
- fish more plentiful at major river mouths where nutrients wash out
- fish migrations especially important when
 - (a) into shallow waters e.g. Grey Mullett
 - (b) between Atlantic and Med./ Black Sea and Med.
- gluts and dearths in fish stocks

2. The Economics of Fishing

T.W. Gallant, *A Fisherman's Tale. An analysis of the potential productivity of fishing in the ancient world*, Ghent 1985

generally high in protein, vitamins, calcium and amino acid Lysine
a good supplement for carbohydrate rich diet like that of ancient world
especially small fry

BUT calorific content / unit weight poor relative to cereal
energy input required to produce 1 kg fish very high

=> often effectively a cash crop ie: fishermen sell their catch rather than eat it

- the big earners. Large fish, deep sea fish, rare fish.
- Tunny. Pliny NH 9.44 on tunny migrations, size etc.
- the Tyrant's Fish...from Athens to Domitian

Sea fishing versus riverine, lacustrine and lagoon fishing.

Purcell estimates managed lagoons / lakes might be 20 x as productive as open sea. cites:

1. Cayster Lakes part of revenues of Artemis of Ephesos. Strabo 14.1.45
2. Lake near Calydon controlled by Patrae Colony Strabo 10.2.21
3. Publically owned lakes near Nîmes Pliny HN 9.29 where dolphins heard mullett.

3. Techniques of Fishing

A. M. McCann, *The Roman Port and Fishery of Cosa*, Princeton 1987

Small boats.
Coastal / inshore fishing really important (unlike in Atlantic)
Small port facilities

No big fleets

4. Fish products and their manufacture

R.I.Curtis *Garum and Salsamenta. Production and Commerce in Materia Medica*,
Leiden 1991

J.C. Edmondson, *Two industries in Roman Lusitania. Mining and Garum Production*
BAR IS 362, 1987

M. Ponsich et M. Tarradell *Garum et industries de salaison dans la Mediterraneeé occidentale*. Paris 1965

Preserved Fish products

- SALSAMENTA
salt fish (or other meats) often whole fish or cuts of tunny
 - GARUM
primary product: others by products
Clear sauce made by fermenting innards and 'waste' parts.
Fermenting took place in open air cisterns (cetaria). Heating was rare.
Variety of special recipes. cf. Pliny Elder
 - ALLEX
residual deposit from garum production, fish paste?
 - LIQUAMEN, MURIA
vague terms which can come to mean same as garum
1. medicinal value: to flavour medicines, help digestion, constipation
 2. culinary uses: sauces for meats, ingredients in stews, a condiment

5. Main Centres of production

- salteries located close to fishing ports because of rapid putrefaction but also needed salt and fresh water (and ideally locally produced amphorae).
- widespread production but only some areas specialised in it for export

The Straits of Gibraltar

both sides, but esp. Spain (Baetica, Lusitania)
garum sociorum from Cartagena especially prized
some signs of Punic predecessors

Africa.

Morocco (Atlantic coast too) -> Cyrenaica

The Crimea

- 100 plus tanks found at Chersonnesus, with a total capacity of 2000 cubic metres.
- Note shallow, Russian rivers, wetlands, less salinity all helps to make this a major fish ground. Pliny believed difference in salinity was a motivation for migration at spawning time.

Brittany

a series of coastal villas with putrefaction tanks

Italy

Cosa (excavations), Veleia (Strabo)
Pompeii cf. Curtis pp. 89-96
salt works at Salinae Herculeae
local garum praised by Pliny HN 31.94
Umbricius Scaurus advertised his garum business on a mosaic pavement. 28 % local garum vessels have his name.
Also exported to Gaul and other places
Big house in regio VII and his son had a political career in the city
NB. local retailers sold imported Spanish garum

Transportation, Distribution, Marketing

- amphora evidence (for Spanish trade especially) including. Dr 7-13
- Terme del Nuoatatore, Ostia
- Praetorian Camp in Rome: Spanish amphorae dominate
- Rhenish finds
- negotiator allecarius dedicated at Colijnspaat
- choice 'brands' e.g. garum sociorum

Chronology

Product known C7th BC ->middle ages
most installations C1st or C2nd AD
compare to Olive Oil Boom?