

DIET AND RELIGIOUS PRACTICES: THE EXAMPLE OF TWO MONASTIC ORDERS IN ROME BETWEEN THE XVIth AND XVIIIth CENTURIES

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Summary

In two ecclesiastical buildings of Rome, the Certosa "Santa Maria degli Angeli" and the Convent of "Minimi di San Francesco di Paola" in Trinità dei Monti, animal remains have been rescued which can be related to some levels of life in the above monasteries. The "Rule" of the monastic communities involved evidently influenced the nature of the sample in a substantial manner. The excavations, made in the two unrelated contexts, dated between the XVIth and the XVIIIth century AD, have revealed a large quantity of fish remains, each one with peculiar characteristics. In the Certosa of Santa Maria degli Angeli many otter bones with visible butchering marks were recovered. On the other hand, the records of the Certosa, preserved in the Archivio di Stato at Rome, allowed us to obtain a detailed analysis of food consumed and of the system of food-supply. Furthermore, in the sample discovered in the Convent of "Minimi di San Francesco di Paola" in Trinità dei Monti turtles were found to have been used in alternatives to fish.

Résumé

Alimentation et pratiques religieuses : l'exemple de deux ordres monastiques à Rome aux XVI^e et XVIII^e siècles.

Des restes animaux en rapport avec la vie monastique ont été collectés dans deux constructions ecclésiastiques de Rome, la Chartreuse de "Sainte Marie des Anges" et le Couvent des "Minimes de Saint François de Paule" de la Trinité des Monts. La "Règle" des communautés monastiques concernées se manifeste très nettement dans la composition des assemblages fauniques. Les fouilles réalisées dans ces deux contextes, indépendants l'un de l'autre et datant respectivement des XVI^e et XVIII^e siècles, ont toutes deux livré une importante quantité de restes de poissons, les espèces en présence différant toutefois d'un assemblage à l'autre. De nombreux ossements de loutre portant des traces de découpe figuraient parmi les restes de la Chartreuse de "Sainte Marie des Anges". Les données textuelles préservées dans les Archives de l'État, à Rome, permettent par ailleurs de proposer une analyse détaillée des aliments consommés et du système d'approvisionnement en denrées. De plus, les restes issus du Couvent des "Minimes de Saint François de Paule" de la Trinité des Monts contenaient des restes de tortues, animaux consommés en place du poisson.

Key Words

Monastic economies, Monastic rule, Carthusians, Minimi, Otter, Turtle, Fish.

Mots clés

Économie monastique, Règle monastique, Chartreux, Minimes, Loutre, Tortues, Poissons.

Introduction

The archaeological excavations conducted in two ecclesiastical sites in Rome have resulted in the recovery of faunal remains attributable to levels of monastic life in which the "Rule" of the relevant order had a substantial influence on the nature of the sample.

The two contexts under discussion date from the second half of the XVIth century and the beginning of the XVIIIth century, one from an exploratory excavation carried out by the *Soprintendenza Archeologica di Roma*, in

aula VIII of the Baths of Diocletian and attributable to levels relating to the Carthusian monastery of S. Maria degli Angeli and the other from a dig conducted by the *Ecole Française de Rome* in the Gardens of Lucullo on the Pincio and attributable to a midden in the Monastery of the "Minimi di San Francesco di Paola".

While the two faunal samples share a scarcity of bone remains from domesticated animals (cattle, swine and caprovine) and the presence of a large number of remains of fish, they differ in several peculiar characteristics.

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The Carthusian monastery of Santa Maria degli Angeli

The sample taken from S. Maria degli Angeli, dating from the XVIIth to XVIIIth century, consists predominantly of remains of otter and fish (respectively 53% and 22%) and scarce remains of common domesticated animals (approximately 15%; tabs. 1 and 2) including several bones of cattle, sheep and pig.

Table 1: S. Maria degli Angeli: animal remains listed by species name. NISP, Number of identified specimens; MNI, Minimum number of individuals.

SPECIES	NISP	MNI
Mammals		
Cattle (<i>Bos taurus</i> L.)	12	2
Sheep/goat (<i>Ovis</i> or <i>Capra</i>)	19	4
Pig (<i>Sus scrofa dom.</i> L.)	1	1
Otter (<i>Lutra lutra</i> L.)	113	10
Total	145	17
Birds		
Chicken (<i>Gallus gallus</i> L.)	1	1
Domestic duck (<i>Anas domestica</i> L.)	1	1
Coot (<i>Fulica atra</i> L.)	1	1
Total	3	3
Reptiles		
Hermann's tortoise (<i>Testudo hermanni</i> Gml.)	11	6
Pond turtle (<i>Emys orbicularis</i> L.)	1	1
Total	12	7
Fishes		
Pike (<i>Esox lucius</i> L.)	1	1
Carp (<i>Cyprinus carpio</i> L.)	2	1
Bass (<i>Dicentrarchus labrax</i> L.)	1	1
Gilt-head bream (<i>Sparus auratus</i> L.)	1	1
Pandora (<i>Pagellus erythrinus</i> L.)	1	1
Ombre (<i>Umbrina cirrosa</i> L.)	14	1
Amberjack (<i>Seriola dumerili</i> Ris.)	3	1
Atlantic bonito (<i>Sarda sarda</i> Bloch)	3	1
Little tunny (<i>Euthynnus alleteratus</i> Raf.)	2	1
Tub gurnard (<i>Trigla lucerna</i> L.)	1	1
Chub mackerel (<i>Scomber japonicus colias</i> Gml.)	4	2
Indet. fishes (<i>Pisces</i> sp.)	15	–
Total	48	12
Shellfishes		
Wedge shell (<i>Donax trunculus</i> L.)	7	
Mediterranean limpet (<i>Patella caerulea</i> L.)	1	
Total	8	

The otter remains number slightly more than a 100 and are attributable to a minimum number of 10 individuals (9 adult and 1 subadult). An examination of the skeletal elements showed that the bones most widely represented in the sample were limb bones, even though remains of the vertebrae and the cranium (tab. 3) were not lacking. A large percentage of these osseous remains presented some sort of pathology (10%), above all in the articular surfaces of the limbs, which was observable in exostosis, often repeated both in the morphology and the position on the bones (fig. 1). This kind of pathology leads one to hypothesize that these animals were kept in captivity for a considerable length of time. The bones also present traces of butchering on several limb bones (humerus, femur and tibia) and some traces of flaying on the cranium and mandible.

The limited bird remains are those of chicken, domesticated duck and coot.

The fish remains include both freshwater fish (pike and carp) and sea fish such as sea bass, gilt-head bream, sea bream, amberjack, boulder, tunny, scorpion fish, spanish mackerel, and above all ombre. These remains often came from individuals of particularly large dimensions, as in the case of the ombre which is estimated to have weighed several kilos.

In the sample, there are also remains of the carapace and plastron of tortoises and pond turtles (6%) and the shells of marine molluscs (wedge shells and limpets; 4%).

The unique nature of the sample can be explained by the particular way of life of the religious community, subject to a "Rule" that forbade the consumption of meat unless vitally necessary, such as in the case of illness.⁽¹⁾

(1) The first to forbid the consumption of meat was Saint Benedict who in his "Rules" prescribed "*Carnium vero quadrupedum omnimodo ab omnibus abstineatur comestio*" (*Sancti Benedicti Regula Monasteriorum*, cap. XXXIX), and allowing its use only by the sick. "...*praeter omnino debiles aegrotos...*".

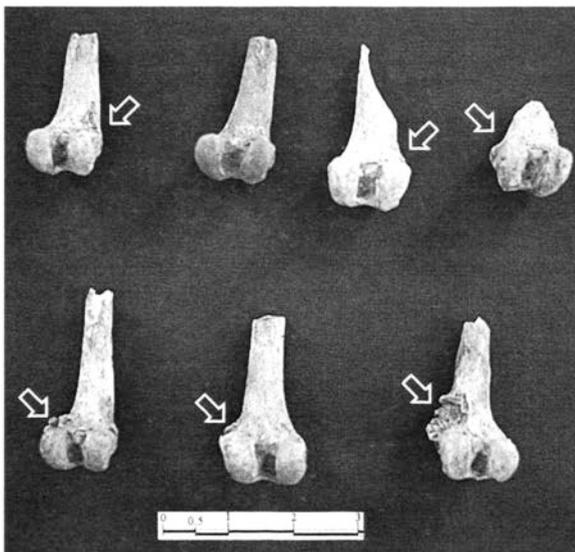
Table 2: S. Maria degli Angeli: list of animal remains divided according to food categories. NISP, see tab. 1.

Species	NISP	%
Land mammals	32	14.8
Aquatic mammals (otter)	113	52.3
Birds	3	1.3
Tortoises	11	5.1
Pond turtles	1	0.5
Fishes	48	22.2
Shellfishes	8	3.8
Total	216	100

Table 3: S. Maria degli Angeli – list of otter remains according to different anatomical elements. For abbreviations, see tab. 1.

Otter (<i>Lutra lutra</i> L.)					
Anatomical element	NISP	%	MNI	%	NISP pathological
Skull	11	9.7	4	40	–
Mandible & lower teeth	7	6.2	3	30	–
Atlas	2	1.8	3	30	–
Axis	1	0.9			–
Cervical vertebrae	6	5.3			–
Thoracic vertebrae	4	3.5			–
Lumbar vertebrae	3	2.6			–
Ribs	5	4.4	–	–	–
Scapula	1	0.9	1	10	–
Humerus	12	10.6	8	80	1
Radius	7	6.2	6	60	1
Ulna	9	8	5	50	1
Pelvis	6	5.3	4	40	1
Femur	16	14.1	10	100	4
Tibia	19	16.8	10	100	2
Metapodia	4	3.5	–	–	–
Total	113		10	10	

Fig. 1: S. Maria degli Angeli: otter femurs with pathologies (the arrows show the exostosis on the *supracondiloidea* tuberosity).



The Carthusians were allow to eat vegetables, cheese, eggs and fish in addition to bread and to drink wine at lunch or dinner: "...accontentiamoci del pane e dell'acqua e, se ci piace, del sale il secondo e il quarto e il sesto giorno; il terzo, il quinto e il sabato cuciniamo noi stessi legumi o qualcosa di simile, riceviamo dal cuoco vino e il quinto giorno, il formaggio o un altro cibo delicato. Dalle idi di settembre sino a Pasqua, fatta eccezione delle solennità, non mangiamo più di una volta al giorno; a Pasqua e sino al predetto termine, nei rimanenti giorni ci ristoriamo la seconda volta: a cena e a pranzo mangiamo, se possibile, erba cruda e frutta. Prendiamone una quantità necessaria al nostro sostentamento, né più né meno. Mangiamo il formaggio, pesce o uova una sola volta e restituiamo il superfluo; beviamo vino a pranzo, o a cena, sia reso per il sabato ciò che avanza di pane e di vino Quando ci riuniamo in refettorio aggiungiamo ai legumi e agli erbaggi formaggio o un'altra simile pietanza e per la cena, se è possibile, altri erbaggi, nell'Avvento non ci nutriamo nè di uova nè di formaggio" ("...may we be satisfied with bread and water and, if it so pleases us, salt on the second, fourth and sixth day of the week. The third and fifth day and Saturday, let us cook ourselves legumes or something similar, and receive from the cook wine, and on the fifth day cheese or some other delicate food. From the ides of September until Easter, except for the exceptional feast-day, we shall not eat more than once a day; at Easter and until the end of the

Table 4: S. Maria degli Angeli: list of fish remains and relative percentages. NISP, Number of identified specimens.

Species	NISP	%
Pike (<i>Esox lucius</i> L.)	1	3
Carp (<i>Cyprinus carpio</i> L.)	2	6.1
Bass (<i>Dicentrarchus labrax</i> L.)	1	3
Gilt-head bream (<i>Orata</i>) (<i>Sparus auratus</i> L.)	1	3
Pandora (<i>Pagellus erythrinus</i> L.)	1	3
Ombre (<i>Umbrina cirrosa</i> L.)	14	42.4
Amberjack (<i>Seriola dumerili</i> Ris.)	3	9.1
Atlantic bonito (<i>Sarda sarda</i> Bloch)	3	9.1
Little tunny (<i>Euthynnus alletteratus</i> Raf.)	2	6.1
Tub gurnard (<i>Trigla lucerna</i> L.)	1	3
Chub mackarel (<i>Scomber japonicus colias</i> Gml.)	4	12.1
Total	33	99.9

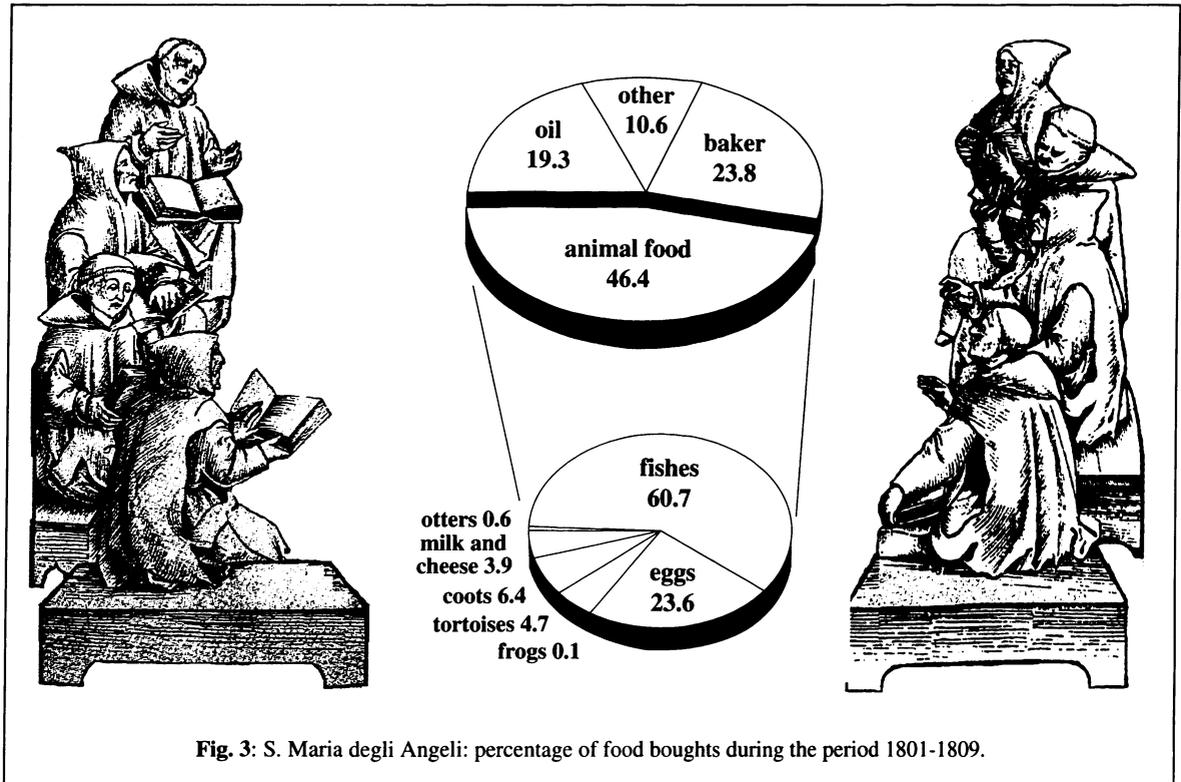


Fig. 3: S. Maria degli Angeli: percentage of food bought during the period 1801-1809.

The data resulting from faunal analysis were compared with documents from the Carthusian monastery of Santa Maria degli Angeli, which are still conserved in the National Archives in Rome near S. Ivo at La Sapienza.⁽⁴⁾ The accounts from the early years of the XIXth century were of great help (fig. 2) since they document in a systematic and rigorous way all the daily inflow and outflow of money, specifying the items purchased or sold, the relative quantity (tab. 5), the weight and the price⁽⁵⁾. Even without yet having data on the size of the communities, it was possible to reconstruct in an exhaustive way the economy and way of life.

In particular the years between 1801 and 1809 were analysed. These represent, most probably, the years immediately following the period when the faunal sample was formed. Historically, this is a period of the great political changes in Rome immediately after the First Republic of Rome, the restoration of the Papal State under Pius VII and the occupation by Napoleon Bonaparte.

From the bills examined, 46% of the spending for food was on animal products (fig. 3). The largest part of the spending went on fish (60%), eggs (23%) but also, in order of importance, coot (6%), tortoise (5%), milk and cheese (4%), otter (1%) and frog (0,1%).

An analysis of the accounts confirms that just one or at most two otters were bought at a time, and generally for three or four occasions each year. The weight of the animals varied from a minimum of 6.5 Roman pounds (about 2.2 kg), to a maximum of 33 Roman pounds (about 11.2 kg), with an average of 16 Roman pounds (about 5.4 kg). These animals were normally brought during winter, between November and March (fig. 4).

The lack of references in the accounts to the skinning and the selling of skins, or of indirect evidence coming from the purchase of materials used for this purpose, such as alum or tannin, supports the idea that the otter were not exploited for such a purpose. The recurrent presence of

⁽⁴⁾ *Archivio di Stato di Roma* (State Archives of Rome), *Certosini di S. Maria degli Angeli* (coll. *Sapienza*, T.B {1292-1300}, p. 1°, fila V). The same type of analysis has recently been done for the Spanish Charterhouse of S. Maria of El Paular (Bielza, 1996).

⁽⁵⁾ More than 4200 individual purchases of food were analysed and computerised including not only data on the invoices but also the amount and price of each item purchased.

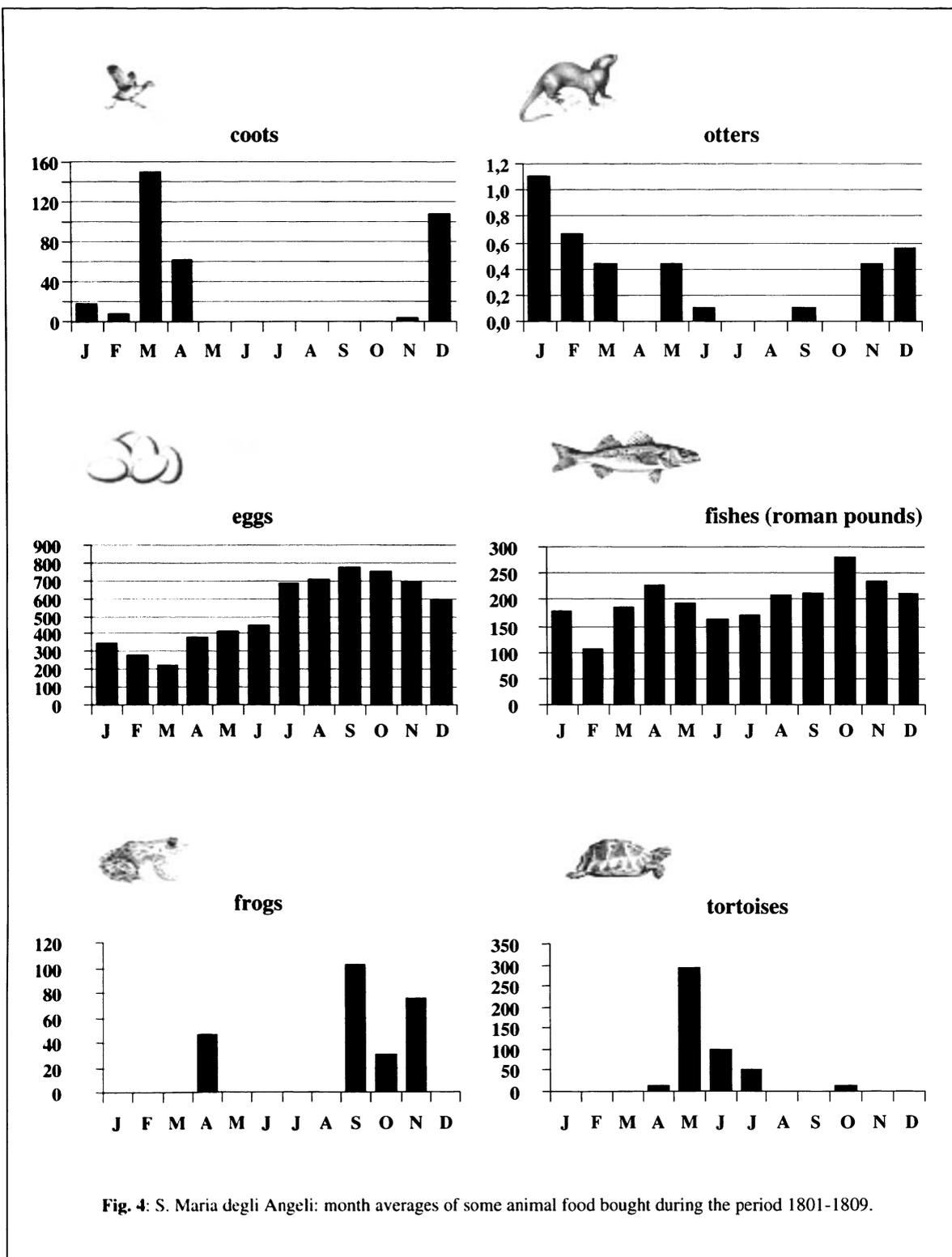


Fig. 4: S. Maria degli Angeli: month averages of some animal food bought during the period 1801-1809.

pathologies of the joints, as we have already seen, might hence indicate breeding by the same merchant.

As late as the XIXth century otters were held in captivity. In the 1865 edition of the *Enciclopedia Popolare Italiana* we read that the otter could be "... addimesticare e addestrare alla caccia dei pesci. A tale effetto si pigliano giovani e si cominciano a nutrire con pesciolini e con acqua. Vi si alternano quindi pane e latte, la cui proporzione si fa crescere gradatamente, a segno che finalmente più non conoscano altro cibo che questo. Ammaestransi quindi ad afferrare e a portare, a quella guisa che si addestrano i cani, e quando hanno imparato a ciò fare, si getta loro nell'acqua un pesce di cuojo ripieno di lana, che s'addestrano a pigliare. Vengono quindi esercitate con pesce morto e castigate se mai cercassero di stracciarlo. Finalmente si mandano in acqua alla caccia del pesce vivo. [...] La lontra si prende per mezzo di trappole tese in vicinanza dei luoghi da essa abitati [...] La trappola ch'è simile a quella delle faine, deve essere aescata con del pesce e non con altra carne" (... "domesticated and trained for fishing. For such a purpose they must be captured when young and fed with small fishes and water. Later this diet is alternated with bread and milk, which is gradually increased until the animal knows only this food. Then [the otters] are trained to catch and retrieve, just in the same way dogs are trained to do. When they have learned to do so, a fish made of leather stuffed with wool is thrown in the water, so that the animal can be trained to catch it. Then they are trained with a dead fish, and punished if they ever try to gnaw at it. At this point they are at last taken to the water to hunt for live fish. [...] The otter is caught using traps set near its den. [...] The trap, which looks similar to that for the stone-marten, should be filled with fish and never with other kinds of meats").

Nevertheless, the use of the otter by the religious community was limited to alimentary purposes, also due to the aquatic nature of this animal, for the otter was considered to be a sort of a "fish". The use of the otter as food by the Carthusian Fathers is also confirmed by Trino Bottani (1811: 212), in his "Essay on the history of Caorle": "... *Lodre (16): animale anfibio: se ne pigliano molte nelle nostre lacune coll'arcobugio, e con i ferri detti da lodre. Se ne prendono anche di quelle, che hanno il peso di lib. 12. in 14., la carne è saporitissima, e si usava molto da' Padri Certosini: formava essa l'essenziale delle loro vivande, e si*

preparavano con essa le Salsiccie, o così detti Salami, che decantano saporitissimi..." ("...Otter (16): Amphibious animal: many can be caught in our lagoons with our harquebus, or with special traps. Also those weighting 12 or 14 pounds can be found. Their meat is very tasty, and was used extensively by the Carthusian Fathers. Actually it was their main dish, and they used it to make sausages or salami, that the people judge to be excellent").

The fact that otter meat had a peculiar taste, quite agreeable to the palate, is confirmed by the *Nuova Enciclopedia Popolare Italiana* of 1865, where we read: "*Come cibo, la carne di lontra è assai gustosa, purchè le si tolga l'odor di pesce per mezzo di droghe e di aromi, e la Chiesa permette che si mangi ai giorni di magro*" ("As food, otter meat is quite tasty, provided its fish taste is taken away using spices or other aromas. The Church allows this meat to be eaten on the days when meat is forbidden").

In the same way, the coot was defined even at the end of the XIXth century as a "fish-bird", as we may read in the recipes by Artusi⁽⁶⁾. Coot was consumed in large quantities; in the year 1806 alone the Carthusians bought 845 of these birds. They were generally bought during winter, from November to April (fig. 4), and most often in December and March, perhaps at Christmas and Easter.

Eggs were also consumed in great amounts. Sometimes they were purchased in enormous quantities as on 3 June 1806 when 1000 eggs were bought. There is also proof in the house ledgers of the Carthusians of Padula of a expensive consumption of eggs, and during the visit of Charles V to the monastery, a legendary omelette of 1000 eggs was prepared (Tamajo Contarini, 1985: 84 ff.). Annual consumption showed a marked decrease in the early months, especially around Lent, and greater consumption in summer and autumn. Probably the eggs were not only bought but also produced by the monks. This is supported by the bill for 80 *paoli* on 7 December 1802 for the purchase of "... *due pollanche per rimpiazzare le morte...*" ("two pullets to replace those that died"). The hens were also often sold outside the monastery. From time to time in the accounts there is mention of purchases of capons and chickens that were then given as presents to the Secretary of the Bishop for particular holidays.

The fish consumed by the Carthusians was characterised by a great variety of species: in fact, the accountins show purchases of anchovies and sardines, rays, smooth-

⁽⁶⁾ Artusi (1891) writes in his recipe for boiled coot: "...*La folaga (Fulica atra) si potrebbe chiamare uccello-pesce, visto che la Chiesa permette di cibarsene ne' giorni magri senza infrangere il precetto...*" ("the coot (*Fulica atra*) can be called a fish-bird since the Church allows its consumption on lean days without it being an infringement of the precept").

hound, fresh and dried cod⁽⁷⁾ and sparids and sciaenids, tunny and mackerel, various small fish to fry, fresh water fish and in lesser quantities, crustaceans and molluscs.

By the weights reported in Roman pounds, which correspond to about 339 grams,⁽⁸⁾ it was possible to calculate that annual consumption of fish in the years 1801-1809 was about 735 kilos. The analysis of the varieties (tab. 6) and the costs of fish has shown how the expenditure was mainly directed towards less-expensive kinds of fish such as dried cod, blue fish and small fish for deep frying. The frying could be of different quality, simple, or high quality (*capata*). In the latter case, the price was slightly higher by an average of 2 *paoli*. Higher quality fish such as white bream, gilt-head bream or sea bass were eaten less frequently and sometimes were purchased only for guests and for the sick.

From the quantities of fish bought monthly, we can detect a decrease in the months of February and March, probably due to the stricter abstinence from food during Lent (fig. 4). It is also possible to see that the purchase of some fish was mainly during specific months (fig. 5). Among the river fish, eel and green tench were predominantly purchased between April and August and especially in July when their consumption almost doubled compared to the previous months. The consumption of hake on the contrary had an opposite trend, between April and August its purchase noticeably decreased compared with the other months. Red mullet was bought almost exclusively in late summer and early autumn while the consumption of cuttlefish, was more or less constant between November and May (with a peak in the month of April) to completely cease during the summer months. Smooth-hound and mackerel were purchased from

⁽⁷⁾ Both *baccalà* (dried cod) and stockfish were purchased, although mainly the former. The difference, as is well known, consists in the different methods of conserving the fish: *baccalà* is obtained from cod which is dried and salted. Stockfish is cod which is only dried.

⁽⁸⁾ One Roman pound = 12 ounces = 339.07185 grams, in Martini (1883).

Table 6: List of fishes and other seafood bought between the years 1801 - 1809. (* turbot, flounders, sturgeons, gobies, stargazers and crabs are also sporadically quoted). 1) Italian name: The common names of fish and other sea animals are often written in the registers with incorrect spelling (for instance *friturra* instead of *frittura*) and sometimes using dialect. For example, the eel (*anguilla*) appears with the names "*anguella, ciriola, ceriola and fumarola*". This sometimes creates problems for the correct interpretation of the kind of fish. The most dubious cases are the tables using quotation marks; 2) Sarda: For this we intend both fresh and salted fish; 3) Tonno: It refers to both fish that is fresh and under oil, the latter sometimes called "*tarantello*"; 4) "Reggina": At Lago di Bolsena, the fisherman use the name "*reggine*" for both carp (*Cyprinus carpio*), especially the variety "*a specchi*" (mirrored), that the rainbow trout or "*trota iridea*" (*Salmo gairdneri*) which are wrongly called "*trota eritrea*" or Eritrean trout. Nevertheless, since it is the last fish of American origins recently introduced in Italy, most certainly this name was used in the accounting records of the Carthusian monks to indicate carp. In truth a small *labridae* is known in the Neapolitan dialect as "*pesce regina*" but this type of fish is not particularly common in fish markets and usually makes up part of what is generally sold under the generic title "fish for soup or deep-frying." According to Chiappini (1945) it is a fish of which the eggs are used to make roe; 5) "Laccia": Called at times "*alacci, alacce, alucci, alazzi, laccie, lacci*"; According to Chiappini (1945) it refers to "*cheppia*" (allice shad) or "*alosa*" (shad) which when it is dried takes the name of "*saracca or salacca*"; 6) "Tonnina": For Chiappini (1945) the "*tonnina*" is a blue fish, and could refer to the part of the tuna which is cut into small piece and conserved under oil. This is confirmed by an idiomatic phrase in the Roman dialect in which ("*fà tonnina*" which means "to do or make a tonnina" means cut, break or reduce in very minute pieces (Vaccaro, 1969). Another example is the sonnet n. 814 by the vernacular Roman poet G. G. Belli who wrote, in the early XIXth century, more than 2200 descriptive sonnets in Roman dialect depicting the Roman populace grumbling humorously at social conditions and at the mismanagements of the pontifical administration: "*Chi sa quante città, quanti nimmichi, Averà fatto diventà tonnina Chi portava quell'ermo a tempi antichi!*" ("Who knows how many cities, how many enemies, Would have made a mash of tuna Who brought this helmet in ancient times"); 7) "Linguattola": Today a particular kind of flounder (*Citaurus linguatola*) is called "*linguattola*" but in the Roman dialect the same name was used for more kinds of soles (*Solea* sp.); 8) "Lasca": Probably this name was not used to indicate the true "*lasca*" (*Chondrostoma genei*) or rudd which is not distributed in Central Italy but instead was used for the "*scardola*" (*Scardinius erythrophthalmus*) or the "*roverella*" (*Rutilus rubilio*), that today are called in this way by the fishermen of Lago di Bolsena (VT) near Rome (Casaccia, 1986). Il Chiappini (1945) retained that it was synonymous with "*laccia*"; 9) "Salacca": In the accounts, they are indicated under the term "*sarache*", bought usually by the number and not by weight. *Saraca* or *saracca* is the name in dialect for "*salacca*", a name which is given to a number of varieties of fish such as the sardine or the allice shad, which are similar to herring and which even though having a mediocre meat was used either smoked or conserved under salt (Alloro, 1993; Posa Andreoli, 1993).

Italian name	Latin name	Food	Weight
Frittura		Fishes for deep frying	3178.3
Sarda	<i>Sardina pilchardus</i>	Pilchard	1937.5
Merluzzo	<i>Merluccius merluccius</i>	Hake	1618.4
Baccalà	(<i>Gadus morhua</i>)	Baccalà (cod)	1474.5
Cefalo	<i>Mugil</i> sp.	Mullet	1321.1
Tinca	<i>Tinca tinca</i>	Green tench	689.2
Arzilla o razza	<i>Raja</i> sp.	Rays	642.5
Triglia	<i>Mullus</i> sp.	Red mullet	635.5
Tonno	<i>Thunnus</i> sp.	Tuna	589.1
Palombo	<i>Mustelus mustelus</i>	Smooth-hound	586.5
Pastinaca	<i>Dasyatis pastinaca</i>	Sting ray	543
"Reggina"	<i>Cyprinus carpio</i>	Carp	563.1
Anguilla	<i>Anguilla anguilla</i>	Eel	507
Squadro	<i>Squatina squatina</i>	Monkfish	435
Seppia	<i>Sepia officinalis</i>	Common cuttlefish	428
Alice	<i>Engraulis encrasicolus</i>	Anchovy	323.9
Barbo	<i>Barbus barbus</i>	Barbel	265.2
Sgombro	<i>Scomber</i> sp.	Mackerel	257.4
Tonnetto	<i>Euthynnus</i> sp.	Little tunny	173.5
Orata	<i>Sparus auratus</i>	Gilt-head bream	226
"Laccia"	<i>Alosa fallax</i>	Twaite shad	208
Fragolino	<i>Pagellus erythrinus</i>	Pandora	193
Stoccafisso	(<i>Gadus morhua</i>)	Stockfish (cod)	191
Luccio	<i>Esox lucius</i>	Pike	106.2
Cappone	<i>Trigla</i> sp.	Gurnard	101
Latterino	<i>Atherina</i> sp.	Sand smelt	90.5
"Tonnina"		(tuna)	80
Corvina	<i>Sciaena umbra</i>	Corb	75
Spigola	<i>Dicentrarchus</i> sp.	Bass	69.4
Sugarello	<i>Trachurus</i> sp.	Scads	69
Palamita	<i>Sarda sarda</i>	Pelamid	67
"Carpionato"	?	?	50
Rana pescatrice	<i>Lophius</i> sp.	Angler fish	49.3
Polpo	<i>Octopus</i> sp.	Common octopus	49
"Linguattola"	<i>Citharus</i> or <i>Solea</i> spp.	Flounder or sole	46.5
Occhialone	<i>Pagellus bogaraveo</i>	Red sea bream	43
Telline	<i>Donax trunculus</i>	Wedge shell	35
"Lasca"	<i>Scardinius erythrophthalmus</i>	Rudd	23
Gronco	<i>Conger conger</i>	Conger eel	22.5
Salmone	<i>Salmo salar</i>	Salmon	22.5
Salpa	<i>Boops salpa</i>	Salema	20
Trota	<i>Salmo trutta</i>	Trout	19
Murena	<i>Muraena helena</i>	Moray	17.5
Aquila di mare	<i>Myliobatis aquila</i>	Eagle ray	15
Aringa	<i>Clupea harengus</i>	Herring	14
Pesce violino	<i>Rhinobatus rhinobatus</i>	Guitarfish	14
Cernia	<i>Epinephelus</i> sp.	Grouper	12.5
Ombрина	<i>Umbrina cirrosa</i>	Ombre	11
Gamberetto		Shrimp	10
Verdesca	<i>Prionace glauca</i>	Blue shark	10
Aragosta	<i>Palinurus vulgaris</i>	Spiny lobster	9
Rondinella di mare	<i>Danichthys</i> or <i>Cypselurus</i> spp.	Dark winged flying-fish	7
Marmora	<i>Litognathus mormyrus</i>	Striped bream	6.5
Gattuccio	<i>Scyliorhinus</i> sp.	Large spotted dogfish	6
Caviale		Caviar	2
Calamaro	<i>Loligo vulgaris</i>	Long-finned squid	1.5
"Salacca"			1
subtotal			18161.7
Indistinct fishes *			3530.5
Total			21692.2

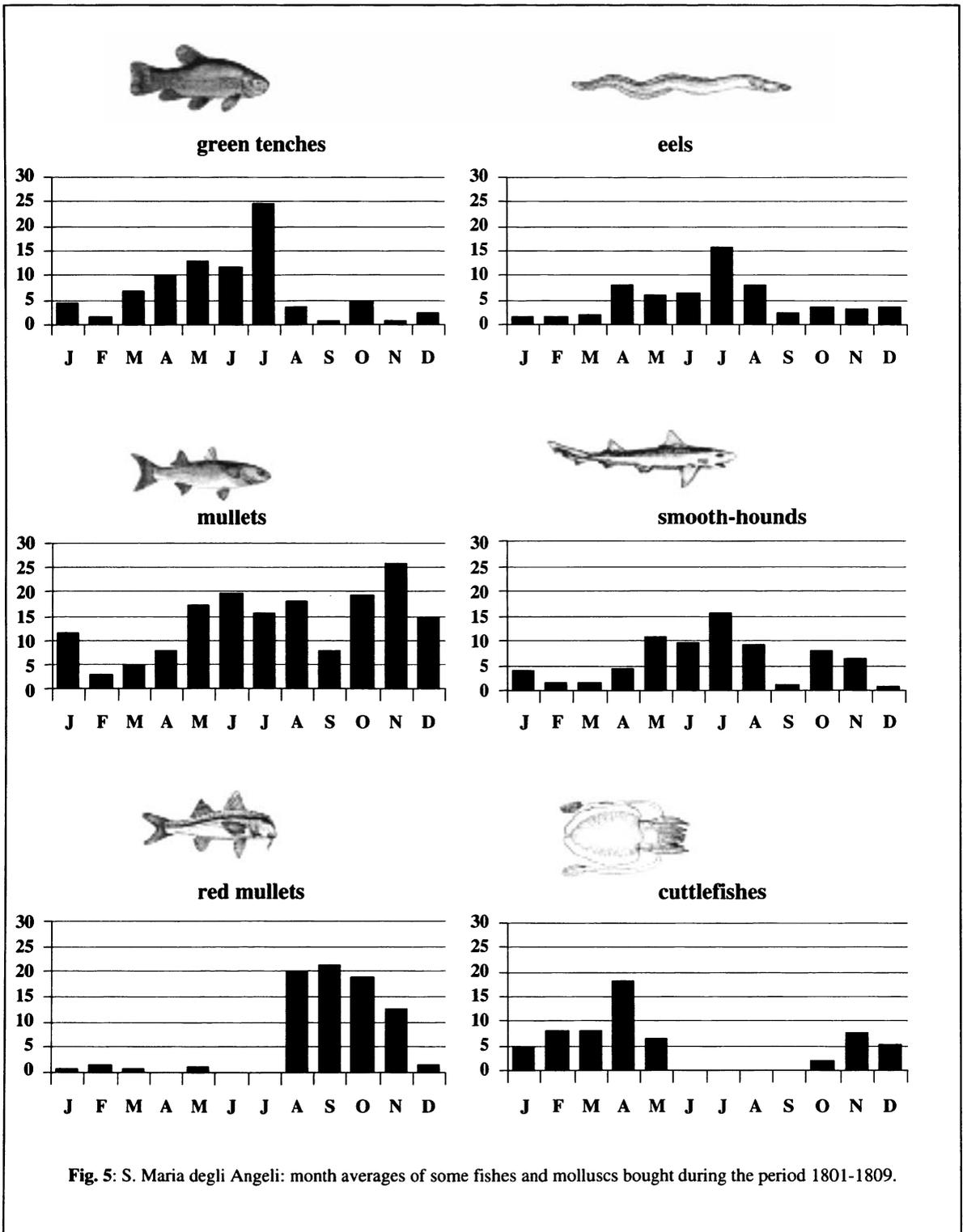


Fig. 5: S. Maria degli Angeli: month averages of some fishes and molluscs bought during the period 1801-1809.

May to August, while we notice a constant consumption of grey mullet from May to January.

The fishing techniques of the time influenced the availability of fish on the market, hence its consumption by the religious community. The fishing of cuttlefish takes place from February to June when they come closer to the coast to lay their eggs. During this period, the larger individuals were mostly caught (Palombi and Santarelli, 1953). As a matter of fact, the smooth-hound and the grey mullet were fished throughout the year, even if the former was fished mostly during the summer season and the second during spring and fall. The fishing of mackerel from May to September is easier because the large schools come to the surface not far from the coast. Red mullet are fished throughout the year but the young individuals are mostly caught between May and August near the coast. The religious community, by purchasing them mostly in the fall, apparently followed the idea that they were tastier in September and October (Artusi, 1891).⁽⁹⁾

The sporadic purchase of frog and more frequently of tortoise completes the nutritional picture of the Carthusians (fig. 4). The frogs were mostly purchased in the fall, from September to November. The tortoises were bought in hundreds, mostly during late spring or early summer⁽¹⁰⁾. The yearly average number was around 400 tortoises, even if in some years - as in 1808- twice as many were purchased.

The consumption of tortoise - especially the pond turtle (*Emys orbicularis* and *Mauremis caspica leprosa*) is also documented in Spain in several monasteries between the XVth and XVIth century. Both the Carthusians of Seville (Roselló Izquierdo *et al.*, 1994) and those of the monastery of S. Maria of El Paular (Bielza, 1996), located under the Sierra Guadarrama, used to breed these reptiles in the monastery's pond for their consumption. As a matter of fact, their *sopa de galapagos* (turtle soup), has been much appreciated over time, and is still well known.

The price analysis (fig. 6) carried out for the years 1802-1809⁽¹¹⁾ has shown that some less usual alimentary

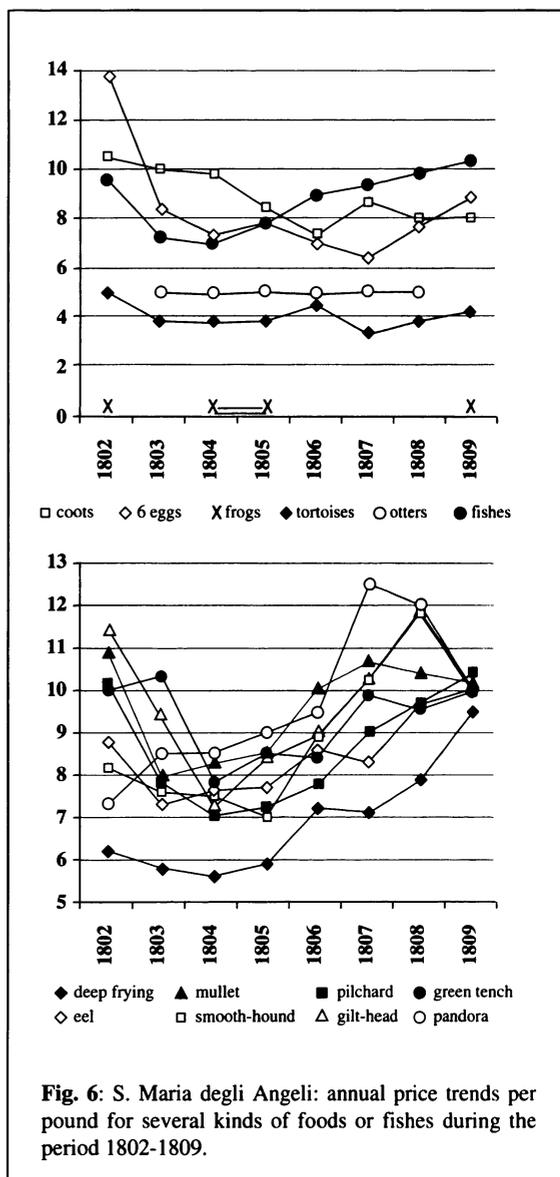


Fig. 6: S. Maria degli Angeli: annual price trends per pound for several kinds of foods or fishes during the period 1802-1809.

⁽⁹⁾ Artusi writes (1891): "Le stagioni per gli altri pesci più conosciuti sono: pel nasello, l'anguilla e i totani, tutto l'anno; ma l'anguilla è più adatta l'inverno e i totani sono migliori l'estate. Pel muggine grosso di mare, il luglio e l'agosto; pel muggine piccolo (cefalo), l'ottobre e il novembre, ed anche tutto l'inverno. Pei ghiozzi, frittura e seppie, il marzo, l'aprile e il maggio. Pei polpi, l'ottobre. Per le sarde e le acciughe, tutto l'inverno fino all'aprile. Per le triglie (barboni), il settembre e l'ottobre. Pel tonno, dal marzo all'ottobre. Per lo sgombero, la primavera, specialmente il maggio..." ("The seasons for the other most well known fish are: hake, eel and squid, all year; but eel is more suitable in winter and squid are better in summer. Large sea mullet (*muggine*) is best in July and August, while small grey mullet is best in October and November and even all winter long. For goby, fish for deep-frying and cuttlefish, March, April and May are the best months, for octopus October. Sardines and anchovies are good all winter until the end of April while red mullet are best in September and October. The best months for tuna are from March to October, while mackerel is best in spring, especially in May").

⁽¹⁰⁾ In the treatise by V. Corrado, *Il Cuoco galante* from 1778, the author affirms that the season for "land tortoise" is "from June through October" while for Marine turtle it is "from February to October."

⁽¹¹⁾ 1801 was not considered because, as already said, we have no precise data from the accounts concerning the items purchased. In fact, often there was only the general heading "shopping for seven days."

goods, such as the otter, the frog and the tortoise, largely maintain the same prices over the time-span taken into consideration. Other food products of animal origin (coot, eggs and fish) underwent more significant price changes. The price of coot suffered a slight decrease after 1804. The price changes of eggs and fish were much more complex and some relation to each other. The price of eggs fell drastically from a very high level in 1802 (14 *bajocchi* for a half dozen) to less than half that (6.5 *bajocchi*) in 1807 while two years later they had a slight increase in price. The average price of fish reached its lowest level (less than 8 *bajocchi* a pound) in 1805, and then began slowly to climb in the following years. In the last year studied it seems that the Carthusians made an agreement with the fish vendors for a flat price of 10 *bajocchi*, at least for a number of the less prized varieties. This can also be noted in the graph of fig. 6 (at the bottom) in which the price trends per pound of a number of species of fish are compared. The fish listed were chosen from among the most popular, less expensive varieties (fish for deep frying, sardines and grey mullet), several among those that were of higher quality (pandora, smooth-hound and gilt-head bream)

and several fresh water varieties (cel and green tench). This graph shows how certain varieties of fish such as pandora and smooth-hound underwent very sensitive oscillations in price. It also shows that in some years (1804-5) there was a general stagnation of prices while in others there was noticeable differentiation of prices as in the two-year periods 1802-3 and 1807-8.

The Monastery of the “Minimi di San Francesco di Paola” in Trinità dei Monti

The fauna of the monastery of *Trinità dei Monti*, recovered from layers directly adjacent to a midden located near the kitchen that can be dated to the second half of the XVIth century. The sample is characterised especially by the presence of numerous remains of tortoise, fish and molluscs (respectively 38.4%, 17.2% and 42.3%) and by scarce remains of domestic animals and birds (respectively 0.8% and 0.4%; tabs. 7 and 8).

The remains of tortoise come predominantly from the species of Hermann's tortoise (*Testudo hermanni*) and the pond turtle (*Emys orbicularis*), although there are also

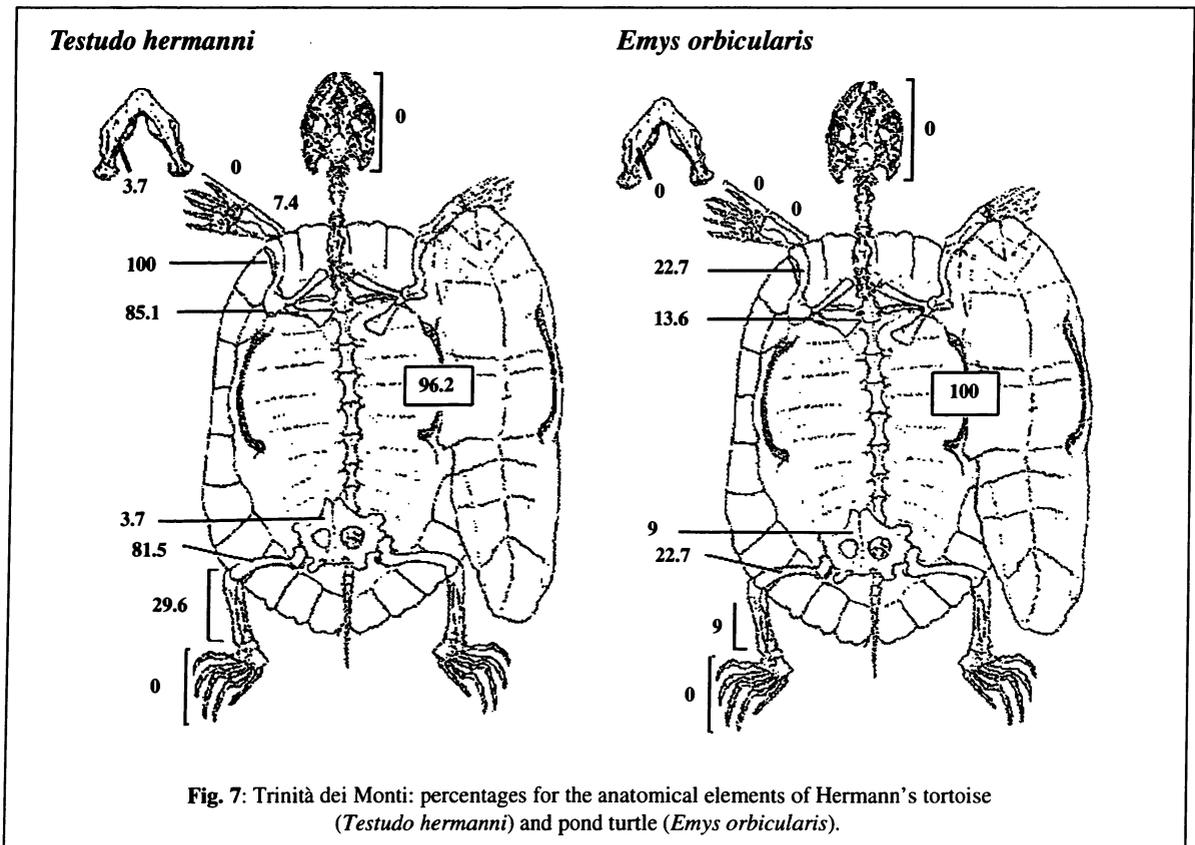


Fig. 7: Trinità dei Monti: percentages for the anatomical elements of Hermann's tortoise (*Testudo hermanni*) and pond turtle (*Emys orbicularis*).

Table 7: Trinità dei Monti: animal remains listed by species name.
NISP = Number of identified specimens; MNI = Minimum number of individuals.

Species	NISP	MNI	Species	NISP	MNI
Mammals			Piper (<i>Trigla lyra</i> L.)	3	1
Cattle (<i>Bos taurus</i> L.)	2	2	Tub-gurnard (<i>Trigla lucerna</i> L.)	12	5
Sheep/Goat (<i>Ovis</i> or <i>Capra</i>)	4	2	Turbot (<i>Psetta maxima</i> L.)	1	1
Pig (<i>Sus scrofa dom.</i> L.)	4	2	Gilt-head bream (<i>Sparus aurata</i> L.)	15	4
Fox (<i>Vulpes vulpes</i> L.) 1 1			Bogue (<i>Boops boops</i> L.)	3	1
Dolphin (<i>Delphinus delphis</i> L.)	2	2	Indet. fishes (<i>Pisces</i> sp.)	15	–
Total	13	9	Total	214	51
Birds			Shellfish		
Chicken (<i>Gallus gallus</i> L.)	3	1	Limpet		
Kestrel (<i>Falco</i> sp. cfr. <i>tinnunculus</i>)	1	1	(<i>Patella caerulea</i> L.)	1	1
Indet. Bird			China limpet	1	1
(<i>Aves</i> sp.)	1	1	(<i>Patella ulyssiponensis</i> Gmelin in L.)		
Total	5	3	Spinous murex (<i>Bolinus brandaris</i> L.)	1	1
Reptiles			Thorny oyster (<i>Spondylus gaederopus</i> L.)	1	1
Hermann's tortoise (<i>Testudo hermanni</i> Gml.)	316	27	Cockle (<i>Cerastoderma</i> sp.)	112	49
Pond turtle (<i>Emys orbicularis</i> L.)	160	22	Striped venus (<i>Chamelea gallina gallina</i> L.)	1	1
Sea-turtle (<i>Chelonidae</i> sp. L.)	3	2	Rayed trough shell (<i>Macrura stultorum</i> L.)	3	2
Total	479	51	Wedge shell (<i>Donax trunculus</i> L.)	321	160
Fishes			Common cuttlefish (<i>Sepia officinalis</i> L.)	2	1
Eel (<i>Anguilla anguilla</i> L.)	2	1	Total	443	217
Pike (<i>Esox lucius</i> L.)	75	11	Land snail		
Green tench (<i>Tinca tinca</i> L.)	22	4	<i>Viviparus</i> sp.	11	11
Barbel (<i>Barbus barbus</i> L.)	5	2	<i>Helix</i> sp.	74	74
Mullet (<i>Mugil</i> sp.)	18	6	Total	85	85
Amberjack (<i>Seriola dumerilii</i> Ris.)	5	1	Sea-urchin		
Ombre (<i>Umbrina cirrosa</i> L.)	16	7	Sea-urchin	7	1
Bass (<i>Dicentrarchus labrax</i> L.)	10	3	(<i>Psammechinus microtuberculatus</i> Blainv.)		
Atlantic bonito (<i>Sarda sarda</i> Bloch)	1	1	Total	7	1
Blue-fin tuna (<i>Thunnus thynnus</i> L.)	10	2			
Little tunny (<i>Euthynnus alletteratus</i> Raf.)	1	1			

remains of fragments of carapace and vertebrae of sea turtle (*Chelonidae* sp.), which can be referred to two individuals.

The analysis of the remains of the skeletons has shown the presence in similar amounts of more or less complete fragments of carapax and plastron, and of bones from the limbs, while remains of the skull and jaw are practically absent (tab. 9, fig.7).

The fish (tab. 10) are represented by both sea and freshwater species. The remains of pike are numerically important even if the freshwater fish (pike, green tench, eel

and barbel) are heavily represented in the sample (around 48.4%). Among the more prized sea fish, we find, in order of importance, the grey mullet, ombre, gilt-head bream, tub gurnard, sea bass, tuna, amberjack, bogue, piper, turbot, Atlantic bonito and the little tunny. The fish were generally of good quality and of fair size, especially in the case of the ombre, which was estimated to weigh several kilos.

The estimates of size were more precise for several species of fish: pike, green tench and gilt-head bream⁽¹²⁾. The dimensions of 19 pike were reconstructed and they

⁽¹²⁾ The reconstruction of the total length (TL) and the weight of the pike was done using regression equations (linear and exponential) of a number of bones from a sample of actual pike (Frezza, 1997; De Grossi Mazzorin and Frezza, in press); for the size of the green tench, Libois' coefficients (Libois and Hallet-Libois, 1988) were applied to the thickness of the anterior branch of the pharyngeal arch while for the gilt-head bream it was possible to simulate the standard length (SL) and weight using the coefficients proposed by Desse and Desse-Berset (1996).

Table 8: Trinità dei Monti: animal remains organized according to main food categories (see also tab. 7).

Species	Number of identified specimens (NISP)	%
Land mammals (excluding fox)	10	0.8
Sea mammals (dolphin)	2	0.1
Birds	5	0.4
Fishes	214	17.2
Shellfishes (excluding cuttlefish)	441	35.4
Land snails	85	6.8
Cuttlefishes	2	0.1
Tortoises	316	25.4
Pond turtles	160	12.8
Sea turtles	3	0.2
Sea-urchin	7	0.5
Total	1245	

Table 9: Trinità dei Monti: turtle remains divided by anatomical element with relative minimal number of individuals and percentages (NISP, MNI, see tab. 7).

Anatomical element	<i>Testudo hermanni</i>				<i>Emys orbicularis</i>				<i>Chelonidae</i> sp.			
	NISP	%	MNI	%	NISP	%	MNI	%	NISP	%	MNI	%
Mandible	1	0.3	1	3.7	–	–	–	–	–	–	–	–
Scapula and coracoids	40	12.6	23	85.1	4	2.5	3	13.6	–	–	–	–
Humerus	53	16.8	27	100	6	3.7	5	22.7	–	–	–	–
Radius and ulna	3	0.9	2	7.4	–	–	–	–	–	–	–	–
Pelvis	19	6	10	37	2	1.2	2	9	–	–	–	–
Femur	39	12.3	22	81.5	7	4.4	5	22.7	–	–	–	–
Tibia and fibula	9	2.9	8	29.6	3	1.9	2	9	–	–	–	–
Plastron	47	14.9	26	96.2	47	29.4	22	100	–	–	–	–
Carapace	105	33.2	–	–	91	56.9	–	–	2	66.6	2	100
Vertebrae	–	–	–	–	–	–	–	–	1	33.3	1	50
Total	316	100	27		160	100	22		3	100	2	

showed lengths and weights which varied from a minimum of 36 cm and 304 gr to a maximum of 114 cm and 12.200 gr, with an average of 75 cm and 4.419 gr. The three green tench that it was possible to reconstruct varied from a minimum of 47 cm and 1.150 gr to a maximum of 56.7 cm and 1.950 gr with an average of 51.8 cm and 1.533 gr. The seven gilt-head bream varied from a minimum of 40 cm and 1.786 gr to a maximum of 56 cm and 4.428 gr with respective averages of 47.7 cm and 2.919 gr.

From these estimates it can be noted that these fish were of more or less large dimensions. This would be in agreement with the food consumption of a fairly numerous community of monks that would make the purchase of large fish more advantageous.

Table 10: Trinità dei Monti: number of fish bones and relative percentages (see also tab. 7).

Species	Number of identified specimens (NISP)	%
Eel (<i>Anguilla anguilla</i> L.)	2	0.9
Pike (<i>Esox lucius</i> L.)	75	35
Green tench (<i>Tinca tinca</i> L.)	22	10.2
Barbel (<i>Barbus barbus</i> L.)	5	2.3
Mullet (<i>Mugil</i> sp.)	18	8.4
Amberjack (<i>Seriola dumerilii</i> Ris.)	5	2.3
Ombre (<i>Umbrina cirrosa</i> L.)	16	7.5
Bass (<i>Dicentrarchus labrax</i> L.)	10	4.7
Atlantic bonito (<i>Sarda sarda</i> Bloch)	1	0.5
Blue-fin tuna (<i>Thunnus thynnus</i> L.)	10	4.7
Little tunny (<i>Euthynnus alletteratus</i> Raf.)	1	0.5
Piper (<i>Trigla lyra</i> L.)	3	1.4
Tub-gurnard (fish) (<i>Trigla lucerna</i> L.)	12	5.6
Turbot (<i>Psetta maxima</i> L.)	1	0.5
Gilt-head bream (<i>Sparus aurata</i> L.)	15	7
Bogue (<i>Boops boops</i> L.)	3	1.4
Indet. fishes (<i>Pisces</i> sp.)	15	7
Total	214	

In considering the quality of fish consumed one must take into account the fact that present-day tastes are not always the same as those of the past. For example today, the grey mullet is considered a less-prized fish in comparison with others such as the white bream or the gilt-head bream. Its habits, which take it frequently to ports and river with serious pollution levels, give its meat a much less pleasant taste than fish that live in the open sea. Its lower quality translates to a market price that is lower than those of other fish. This was clearly not so in past centuries when the water was not polluted by industrial waste and boat fuel. Proof of this is found on a stone tablet from 1681 outside the City Hall of Civitavecchia which lists the prices of fish; grey mullet was sold at "bajocchi 4 la libra" (4 bajoc-

PREZZI DE PESCI				
B 5 LA LIBRA	B 4 LA LIBRA	B 3 LA LIBRA	B 2 LA LIBRA	B 2 LA LIBRA
SPIGOLA	CEFALO	OCCHIALE	OCCHIALONE	SCORFANO
ORATA	SARAGO	SARDE	TORDO	MORENA
OMBRINA	PALAMITA	LATTARINI DI PORTO	BOCCACCIE	POLPO
LECCIOIA	MACCARELLO DRITTO	BIANCHETTI	GRONCO	GATTVCCIO
DENTALE	CALLAMARO	PALOMBO	CORVO	LEONE
ANGVILLA	AGVGLIA	ARZILLA DRITTA	MOSTELLA	FRITTVRA ORDINARIA
TRIGLIA DI SCOGLIO	TOTANO	ARGENTINI	PESCATRICE	ALICI DI SCIABICA
TONNO	CAPPONE DI SCOGLIO	SEPIETTE	SARPA	PESCE BESTINO
SOTTO LIBRA	TAGLIERE	FRAVOLINO	SEPIE	IN GENERE
IL DETTO	LI SVDDETTI	TRIGLIA DI FANGO	CASTARDELLA	
PESCE B 4	SOTTO LIBRA B 3	ALICI DI SPEDONE	FRITTVRA SCIELTA	
LENGVATTOLA		CAPPONE DI TARTANA	LVCERNA	
E ROMBO B 5		O SIA COCCIO	TRACINA	
LA LIBRA		MERLVZZO	RAGVSTE	
			PESCE S. PIETRO	
			SVGARELLO	

PORTANDOSI A VENDERE ALTRA SORTA DI PESCE SOPRA DESCRITTO NON POSSA VENDERSI SE PRIMA NON E' STATO POLIZATO DALLI SIGNORI GRASSIERI NEI GIORNI DI VENERDI, SABBATO E VIGGILIE COMMANDATE. CRESCANO LI SVDDETTI PREZZI A MEZZO BAIOCCHO PER LIBRA IN TEMPO DI QVARESIMA TVTTO IL PESCE VALVTATO BAI 5 E BAI 4 LA LIB. DOVRA' AVGVMENTARSI VN BAIOCCHO PER CIASCHEDVNA LIBRA. RISPETTO POI ALL'ALTRO PESCE VALVTATO BAI 3 E BAI 2 LA LIBRA SI POTRA' VENDERE MEZZO BAIOCCHO PIV' LA LIBRA. CHI TRASGREDIRA' DALLI PREZZI SVDDETTI DOVRA' PAGARE DI PENA SCVDI DIECI ET ALTRE AD ARBITRIO SECONDO LE LEGGI.

RESTAVRATA L'ANNO MDCCLXXI

Fig. 8: Stone tablet from Civitavecchia (Rome) which lists the prices of fishes in the 1681 (B, bajocchi).

chi per pound), the same price as white bream and an even higher price than smooth hound or lobster, which today are much more expensive (fig. 8). A further confirmation of the quality of its meat is found in the accounts of the Carthusian monastery of S. Maria degli Angeli, where even at the beginning of the XIXth century, the price of grey mullet was fairly high in relation to other types of fish (fig. 6).

In addition to the fish, other foods of marine origin were added, such as dolphin, sea urchin, and molluscs such as cuttlefish, a number of species of marine conchifers and land snails.

In this case as well, the composition of the samples finds an explanation in the way of life of the Minimi. Their dietary rules were even more rigid than those of the Carthusian Fathers in that they forbade the eating not only of meat but also of eggs, cheese, butter, milk and other milk products at all times. The only food of animal origin permitted was fish. The sick were allowed to consume meat only in particularly serious cases (Galuzzi, 1967).

The particular conditions of poverty of the monks drove them to adopt substitutes for fish in the form of other food of animal origin "similar" to fish. This explains the abundant presence of molluscs (land and sea varieties) and

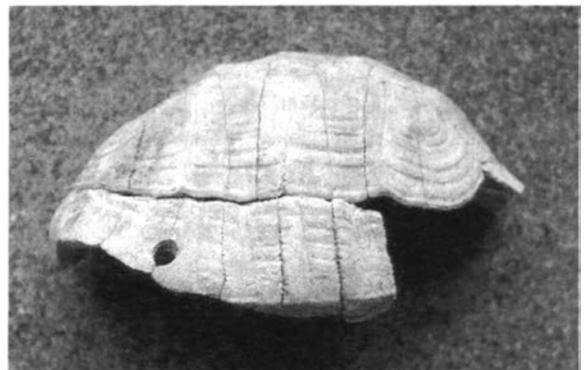


Fig. 9: Trinità dei Monti: carapace of Hermann's tortoise (*Testudo hermanni*) with a hole on posterior margin.

above all tortoise both of which are extremely well documented in the faunal remains of the sample.

Initially it was hypothesised that the tortoise were kept as animal companions, a view encouraged by the fact that the area from which the sample was taken is still today called "The Garden of the Tortoises" and by the presence of a hole discovered on the posterior margin of the cara-

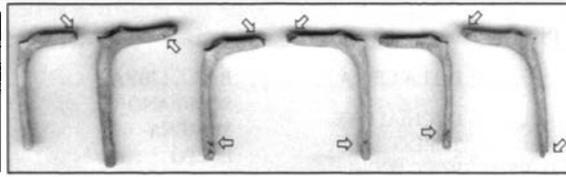


Fig. 10: Trinità dei Monti: traces of cuts on scapulae carapace of Hermann's tortoise (*Testudo hermanni*).

pace⁽¹³⁾ of one of these, which led to the presumption that the animals were kept tied (fig. 9). Nevertheless a deeper analysis of the skeletal elements has led to the discovery of frequent traces of cuts on the joints, especially on the scapula but also on other bones and this led in turn to the hypothesis that they were used as food (fig. 10).

Even the absence of cranial remains of tortoise could be linked directly to culinary practice; the animals were probably decapitated before being cooked. Several recipes reported the cooking treatise "*Il Cuoco Galante*", written by Vincenzo Corrado (1778), describe how to cook turtle. In the recipe for *boiled turtle*, the animal was extracted from its shell and boiled with butter, salt and other spices, while for *turtle in "saporiglia"* it was cut in to small pieces and sauted in oil with other spices. It was also possible to make a sort of ragù sauce from tortoise, seasoned with various types of vegetables or egg; from the innards, blood pancakes, omelettes and blood-pudding or sausages were made. Turtle broth was listed among the so-called *thin soups*. None of these recipes, however, clarify whether or not the head was taken off. However, Domenico Romoli (1560, Ch. CLXVI.), nicknamed *il Panunto*, in his cook book "*La singular dottrina*" (*The Singular Doctrine*) writes about sea turtles "...*Pigliasi la tartaruga e tagliase la testa e cavisi con destrezza la carne dalla scorza...*". ("clean the turtle, cut off the head and extract delicately the meat from the shell..."). It is probable that other types of tortoise were also prepared in the same way.

The consumption of turtle by the monks is also confirmed by several documented sources. It is well known

that Pope Hadrian VI (1522-1523) *vivae vocis oraculo* allowed the use of this animal as food without it breaking the rules of Lenten abstinence (De Peyrinis, 1668: 354, tab. 1; Bonnard, 1933). Furthermore, in a note written shortly before the French Revolution, the monks opposed the construction of a building by the south wall of the Church, the religious brothers maintaining that such a construction would have implied the sacrifice "...*del giardino nel quale si tengono le tartarughe e di tutto il viale che vi conduce. Le tartarughe sono un sollievo per i giorni in cui il pesce manca. Si deve dunque custodirlo e conservarlo.*" ("...of the garden in which the tortoises were kept together with the avenue that leads to it. The tortoises are a pleasure for those days in which there is no fish. So it must be kept and preserved")⁽¹⁴⁾. From all this we may see that the brothers were used to breeding tortoises in the monastery garden, although probably some part of them were bought, as we have already seen in the case of the Carthusian monastery of S. Maria degli Angeli. The selling of these animals by itinerant merchants must have been quite common in Rome at least from the XVIth century. Such merchants are depicted in numerous prints from the mid XVIth century⁽¹⁵⁾, of which the best known versions are those by Nicolaus van Aelst⁽¹⁶⁾ and by Giovanni Antonio Remondini⁽¹⁷⁾. These are representations of the so-called "*mercanti ambulanti di Roma*" ("ambulant merchants of Rome"), characters which no longer exist today and which are typical of a vanished city, that "*vanno vendendo per via*" ("used to sell on the road"), with their cries to describe their goods in a never-ending rhyme to attract the citizens attention. Particularly, the sample by Remondini (fig. 11) shows 198 sellers, set in seven vignettes with the typical cry of each ambulant, articulated in two refined verses in rhyme, used to describe their goods. That of the turtle seller, picture 8, reads:

*"Tartarughe di bosco e d'acqua porto,
conciate bene danno ogni conforto".*
("Turtles of the woods and water I take, well prepared every pleasure make").

⁽¹³⁾ Another turtle that presented a hole on the carapace was reported in the Roman-Byzantine city of Nicopolis ad Istrum in Bulgaria (Beech, 1997, fig. 6).

⁽¹⁴⁾ Archives of S. Luigi dei Francesi in Rome, fasc. 240, n. 12.

⁽¹⁵⁾ See the work of A. A. Cavarra (1993). The oldest of these prints, printed in 1580 by Ambrogio Brambilla for Claudio Duchet, has been lost.

⁽¹⁶⁾ Nicholas van Aelst *Ritratto di tutti quelli che vanno vendendo per Roma*, printed between 1583 and 1613.

⁽¹⁷⁾ G. A. Remondini, *Nuovo et ultimo ritratto di tutte l'arti che vanno vendendo per la città di Roma*, printed in Bassano between 1640 and 1712.



Fig. 11: The turtle seller in Remondini's print.

Also the dolphin was compared to the fish. Its presence at Trinità dei Monti should not surprise anyone since already in the XVth century this species was easy to find at the fish market in Rome, as it is documented by the same text of the *Statuta pescivendolorum Urbis* (*Code of City fish-sellers*) (*Rubrica*, 36) in which the dolphin was mentioned as an example of a large fish together with the sturgeon, ombre and amberjack: "...*pisces grossos videlicet storiones, ombrinas, leccias, [.alfinos et alios quoscumque incisione egentes...*" (Lanconelli, 1985).

Conclusions

The comparison of the percentages of the two samples analysed with the data coming from the expenditures of the Carthusian monastery of Rome does not allow a quantitative assessment, since the values cannot be compared. We know that in the time-span that we have taken into consideration, approximately 22,000 Roman pounds of fish were purchased but we do not know exactly how many fish were involved. On the other hand we know that 3,822 tortoises were bought but we do not know their total weight. Never-

theless, it is possible to make some deductions from a qualitative point of view. The purchase of otters present in the sample of S. Maria degli Angeli is well documented also in the account-books, while the consumption of tortoise by religious communities is confirmed and well documented by the remains of bones at Trinità dei Monti. Furthermore, both samples show a vast number of remains of fish belonging to several species, providing proof of their great consumption. This is also confirmed by the documents in the archives, by the percentage of money spent on their consumption and by the large quantities bought by weight.

The sporadic presence of some remains of some domestic animals is explained by the fact that these animals, like the horse and ox, were necessary for transportation, for agriculture or other secondary activities, as for example in some charterhouses of today, such as that of Farnetta near Lucca, where a pig is kept to process the kitchen waste.

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