

ON THE APPEARANCE OF THE DOMESTIC FOWL (*GALLUS GALLUS DOMESTICA*) IN BULGARIA AND BALKAN PENINSULA AND THE QUESTION OF DOMESTICATION OF JUNGLEFOWLS (GENUS *GALLUS* BRISSON, 1760) IN SOUTHEAST EUROPE

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THE DOMESTIC FOWL AND THE HYPOTHESES FOR ITS ORIGIN

The question of the origin of Domestic Fowls (genus *Gallus* Brisson, 1760) on the Balkans and Europe still remains unresolved. *G. gallus domestica*, considered a subspecies for convenience sake, as it is not the outcome of natural selection, has been of primary importance for the poultry farming throughout the world from deep antiquity to the present days. No other bird has combined so many favourable features for man — body mass, egg-laying capacity, a brief life cycle, an unpretentious feeding and breeding, etc. The present paper summarizes some scattered data published in the various less accessible sources in the East-European ornithological literature. It also reports on some new finds from Bulgaria.

The Darwin's view (Дарвин, 1987) that the domestic fowl originated from the bankivian Red Junglefowl of Hindustan generally has not been disputed to the 1960-ies. In his classical work (*The Origin of Species ...*), Darwin expresses his belief that all breeds of fowl in Great Britain originated from the wild Indian Fowl *Gallus bankiva* (i.e. the Red Junglefowl *Gallus gallus*).

The so-called "Bankivian Fowl" has been considered as a subspecies of the Red Junglefowl (*Gallus g. bankiva* Temminck, 1813), inhabiting the islands of Sumatra, Java and Bali alone (McGowan, 1994). Common for the Hindustan Peninsula from Kashmir to Assam and northward to Nepal is the other subspecies *G. gallus murghi* Robinson et Kloss, 1920 (Howard & Moore, 1980; Lever, 1987; McGowan, 1994). The nominant subspecies *G. g. gallus* (Linnaeus, 1758) according to the same authors is spread nowadays in Southern Indochina, Thailand and Sumatra. (McGowan (1994) excludes Sumatra of the range of that subspecies.)

On the other hand, Ванчев (1973) and Ванчев и др. (1989) cite incomplete data on the opinion of Charles Davenport, who believed that some of the large breeds of fowl in East Asia originate from another extinct Junglefowl (*G. giganteus*), known also as "azil". According to this author *G. giganteus* was spread in New Guinea and the Philippines and it was domesticated prior to 1000 B. C. In fact, there are no reliable data supporting the existence of that species, either as fossil or subfossil material so far: Brodkorb (1964), Greenway (1967), Day (1981), Olson (1985), Fuller (1988).

Wood-Gush (1959) and Lever (1987) report that the Red Junglefowl was probably bred in southeastern Asia in praehistoric times before 1400 B. C. The species was domesticated in the Indus valley by around 2000 B.C. (between 3000 and 2500 B.C.) and

had been introduced to Central and northwestern Europe by 1500 B.C. The main reason for its ancient distribution in Roman times probably were the cock-fights.

Stresemann (1924) and Gander (1953) (according to Уманская, (1972) deny the origin of Domestic Fowl from *G. g. bankiva*. They considered the other subspecies from India as its ancestor, which was domesticated in the Neolithic. As it was mentioned above, the only subspecies spread at present in Hindustan is *G. g. murghi*. Уманская (1972) cites Gander's data on Neolithic images of the Domestic Fowl from Mesopotamia as well.

SOME DATA ON DISTRIBUTION OF JUNGLEFOWLS IN EUROPE

The new paleo- and archaeo-ornithological data of present century, allow the acceptance of a new assumption for the ancient centres of domestication of junglefowls. Recently West & Ben-Xiong (1988) have summarized most data known so far and have given the formulation of the problem. They express the assumption that the Asian Domestic Fowl had not been spread in Europe in antiquity, but as early as the Iron Age, and was known in some ancient settlements from the time of the Bronze Age and even the Neolithic. In the same time, Mourer-Chauvire (1971, 1976) reports about *G. gallus* Neolithic finds from the Greek Island of Kitsos. "The abundance of *Gallus gallus* allows to accept, that this species was already domesticated." (Mourer-Chauvire, 1971; p. 732). In other paper the same author reports on "post-glacial" *G. gallus* finds from L'Hortus Cave (S. France) with cut marks on the bone surface. Morphologically that "Domestic Fowl" is very similar to *G. g. bankiva* (Mourer-Chauvire, 1972). Data is cited by West & Ben-Xiong (1988) about 90 sites of *G. gallus* material in Europe and Asia, 6 of them from the former U.S.S.R., 1 — from Greece (Rhodes Island), 3 — from continental Turkey and 5 — from Romania. It is noted that in the Yunan province of China climatic conditions over the past 10 000 years remained unchanged which allows an assessment of the environment in China at the time of domestication of the species in China. The authors suppose the existence of two distribution routes of the Domestic Fowl to Europe in ancient times from China: one westward from Turkestan, and the other — northward through Mongolia. Considering the territory of the former U.S.S.R. as a bridge of the spreading of the Domestic Fowl from South and East Asia towards Europe, West & Ben-Xiong (1988) state that "only archaeologist from the U.S.S.R. can provide the answer to this intriguing question." We should not exclude the existence in the past of a third route of direct transportation of Domestic Fowl in eastern parts of Balkan Peninsula from the Transcaucasian region by sea. Such route is suggested by Crawford (1984) also.

During the 20th century the amount of paleontological information on the *Gallus* species increased substantially. From the Lower Pliocene (Pontian) to the Middle Holocene of Europe, the number of the known sites of genus *Gallus* is over forty. The most ancient European *Gallus* species is the Aesculapian fowl (*Gallus aesculapi* Gaundry), known from the Lower Pliocene at Pikermi (continental Greece; Brodkorb, 1964), the Middle Pliocene (Meotian) at Novo-Elizavetovka (Odessa region) (Алексеев, 1915), and Tiraspol (Ласкарев, 1908), Kuyalnitskyi Liman (Southern Russia) (Ласкарев, 1912) and the Upper Pliocene of Odessa (Тугаринов, 1940; Пидопличко, 1956; Молявко, 1963). The former species *G. bravardi* Gerais came from 2 sites from the Middle Pliocene of France (Arde; Fort-du-Sat-d'en Vocquer; Brodkorb, 1964). According to Mourer-Chauvire (1989) *G. bravardi* must be attributed to the *Pavo* genus. Additionally, a new junglefowl (*G. europaeus* Harrison, 1978) has been described from the Middle Pleistocene of North Norfolk in Great Britain (Harrison, 1978). Burchak-Abramovich has also described another new species of Pleistocene fowl from the Paleolithic of Transcaucasia — *G. karabachensis* sp. n. (in litt.).

The recent Red Junglefowl (*G. gallus* L.) is reported from 25 locations at least in Eastern Europe. Fourteen of them are in Romania, ranging from the Upper Pleistocene to the Bronze Age: Izbindis, Igrita, Potriva, Biharea, Pastaioasa, Vulturilor, Balnaca, Hodoala, Ungurului, Dealul Dumbravi II, Fugarilor, Parta, Dealul Padirelului and Duza Sowa (Jurcsak, Kessler, 1986). The remaining locations of the species are from the Mousterian (Kyik-Koba Cave; Тугаринов, 1937) and Late Ashelian of the Crimea (Воинственский, 1963), the Pleistocene of Podolie (Марисова, 1963), the "Holocene deposits" of a cave near the village Nizhneye Krivtche (Ternopol region), "Middle Holocene" at Kremets, Neporotovo and Raspopintsy (Tchernovitskaya region) (Марисова, 1962), the Late Paleolithic at Trinka cave and the Lower Holocene of Kolkotovaya balka (Tiraspol region) (Воинственский, 1967), and Brynzeny I Paleolithic cave (Ганя, Кетрару, 1964; Ганя, 1972) in Moldova. Уманская (1972) cites seven sites of "*Gallus domesticus*" from Neolithic to Iron Age in Ukraine (Khalepje, Gorodskoje, Frontovoje, Hersoness, Petoukhovka, Berezhan and Olviya), while Воинственский (1967) reports about Cimmerian finds from Kamenskoye (Zaporozhskaya region) in Ukraine.

G. g. domestica is established in Armenia from the early 2nd millenium B.C. (ancient town of Noemberyan, 4 bones) and the Uratian town of Argyshty-hinily (6th century B.C.) (Бурчак-Абрамович, Межлумян, 1986). The authors assume that some wild species of the *Gallus* genus were still survived during the beginning of the Holocene, and even — up to the Eneolithic period, when they were domesticated.

The finds from Transcaucasia (Noemberyan) in Northern Armenia and Mingechaur in Azerbaidzhan (Бурчак-Абрамович, 1987), are unjustified and determined as "*Gallus domestica*" also. We follow Sossinka (1982) who proposes for all domesticated birds to be referred to as "*forma domestica*", which however, has no status according to the International Zoological Code. Certainly, "the domestication is the most extensive biological experiment ever undertaken by man." (p. 373), but domestic birds should not be placed into the natural systematics.

In addition, numerous finds of wild fowls, determined as "*Gallus sp.*" have been established among the Paleolithic to the Iron Age archaeological material from:

1) Ukraine (Podolije, Ternopol Region, Odessa, the lower stretches of the rivers Dnepr and Dnestr, the Crimea (Марисова, 1963; Воинственский, 1959; 1963; 1967; Воинственский, Уманская, 1959; Татаринев, Марисова, 1962; Тугаринов, 1937).

2) Moldova (Trinka, Starye Duritori), Brinzeny (Ганя, 1965; Ганя, Кетрару, 1964).

3) The European part of Russia (Vladimir — Бурчак-Абрамович, Лакербай, 1980; Вурсзак-Абрамович, 1972).

4) Georgia:

Paleolithic: Gwardzghilas-Klde Cave (Бурчак-Абрамович, 1966; 1969) and Mgwimemi in Imeretia (Бурчак-Абрамович, Бендукидзе, 1971); Kudaro I Cave in South Ossetia (Бурчак-Абрамович, Любин, 1972; Бурчак-Абрамович, 1974; 1980; Вурсзак-Абрамович, 1972).

Neolithic—Eneolithic: Sagwardzhile Cave near Kutaisy (Бурчак-Абрамович, 1982; Бурчак-Абрамович, Лакербай, 1980).

5) Azerbaidzhan: Mingechaur (Бурчак-Абрамович, Алиев, 1981; Бурчак-Абрамович, 1987).

"The find of a right tibiotarsal bone of *Gallus sp.* has dimensions very close to these of recent domestic fowls. It was found together with the remains of the Cave Bear, Rhinoceros, Reindeer, etc. and is an indication of the ancient distribution of that bird on the territory of the Dnepr-Prut rivers region. It is difficult to believe that these remains

belong to Middle Paleolithic domesticated fowls. Most probably, the bone belongs to one of the wild species of junglefowls, which were widespread in Eurasia during the Neogene ..." (Г а н я, 1965, p. 31). Contemporaneously Б у р ч а к - А б р а м о в и ч (1966) writes that the finds of *Gallus* sp. of the Upper Paleolithic cave Gwardzhilas-Klde in Imeretia (Georgia) "... is a very important faunistical and zoogeographical discovery, which allows us to have doubts in the correctness of the monophylethic theory for the origin of all domestic fowls from the Southasian bankivian fowl, based by Charles Darwin. It is evidently that a wild Caucasian species of *Gallus* genus has survived in the mountain forests at the end of Pleistocene and the Lower Holocene." (p. 93).

These statements are only two examples of the whole series of similar evidences for the East-European Quaternary wild junglefowls, published in the soviet paleornithological and ornithoarchaeological literature. Some of the finds of these SE-European wild paleolithic fowls refer to several individuals. The finds from the Kudaro I cave in Caucasus, for example, are dated 44 000 B. C., consist of 5 whole bones and belong to 3 individuals at least (Б у р ч а к - А б р а м о в и ч, Л ю б и н, 1972).

THE BALKANS AND THE APPEARANCE OF DOMESTIC FOWL IN EUROPE

Most authors believe that the Domestic Fowl reached the Balkan Peninsula via two routes: 1) the Northern one (through China — Middle Asia — the Southern Russian steppes — the Ukraine and Dobrudzha Plain), and 2) the Southern one (through India — Persia — Asia Minor — Thrace Plain). Thus, westward the Black Sea, the Balkans are the first European lands, where *G. gallus* should have appeared on the continent. The possibility of Domestic Fowl, arriving on the Balkan Peninsula, along both routes simultaneously, cannot be ruled out, neither can we exclude the third route (by sea) directly from Transcaucasia. As the review of the archaeological data indicates, at least three different species (or subspecies) of wild fowl existed from the Paleolithic to the beginnings of the second millenium B.C. (Б у р ч а к - А б р а м о в и ч, 1974). Different views have been expressed on the spread of the Domestic Fowl in the remaining regions of Europe. In most cases they are based on data from ancient chronicles and authors or various archaeological finds (ancient coins, vases, mosaics etc.), which have preserved imprecisely dated images of cocks and hens.

THE DATA FROM GREECE

Б о г о л ю б с к и й (1959) points out that the Domestic Fowls appeared in Greece between the end of the 2nd millenium and the 1st millenium B.C., and throughout the 7th—3rd centuries B.C. vases and coins were frequently decorated with images of cocks and hens of various graceful breeds. According to him the oldest written sources on this species belong to Theognis and Aristophanes (5th—4th century B. C.). At the time of Pythagorus (580—500 B.C.) in the neighbouring Greece the sloughter of cocks was forbidden, as the cock was sacred bird (П е т р о в, 1986). An opinion prevails in the Bulgarian and in the foreign literature that the fowl appeared in Europe (and first in Greece) during the second half of the 1st millenium B. C., in particular in the period between the 8th and the 1st century B.C.: 8th century B.C. (И о ц о в, Д и м и т р о в, 1966; Д и м и т р о в, Ц о н е в, 1974), 7th century B.C. (С м е т н е в, 1984, who points out that in Greece the first images of fowls were found on coins and vases dated 7th century B. C.: В а н ч е в, 1973), 6th century B. C. (К е л л э р, 1913; У м а н с к а я, 1972), 5th century B. C. (Д о б р о х о т о в, 1949) 5th—4th century B.C. (Б о г д а н о в, 1913; Н а н с л и а н, 1925), 3rd century B. C. (К у м а н о в, 1956). Б о г о л ю б с к и й (1940) attributes its



Fig. 1. Fighting cocks. Roman mosaic from Oescus, North Bulgaria (3rd century A. D.)
(after И в а н о в, 1957)

appearance towards the beginnings of the 1st century A. D., while P e t t e r (1973) believes that the Domestic Fowl spread in Asia Minor and the Mediterranean about 750 B. C. He also notes the cause of the transformation of the cock into a sacred bird — because of the high egg-laying capacity of hens, cock were declared sacred, and were sacrificed at altars of the fertility deity. An interesting relief with a figure of a cock combined with the sculpture of a phalos, from the island of Delos, was dated from the 3rd century B. C. (Т а х о - Г о д и, 1989) (fig. 2). Н и к и т и н (1948) believes that Greece was the first main centre of the spread of the Domestic Fowl in Europe, which had been introduced from Persia in 330 B.C. У м а н с к а я (1972) points out that domesticated fowl has been known in Middle Europe since 8th century B.C., while in Western Europe it has appeared in 10th — 6th century B.C.

W e s t and B e n - X i o n g (1988) cite a total of 4 archeological sites in South Greece, where the bone finds of Domestic Fowl were found: Trapeza Cave (in Lasithi Plain) — 4000—1800 B.C., Kommos (near Phaestos) — 1230—1100 B.C., Ayios Stephanos (Laconia) — 1230—1100 B.C., and Lerne (The Argolid) — 3000—2000 B.C. These data unequivocally reject all assumptions cited above, that the *Gallus* species appeared in Balkans and Europe only during the 1st millenium B.C. G r a w f o r d (1984) writes that the chickens entered in Greece and Italy in the 8th to 6th century B.C. and they were wide spread there in the 5th century B.C.

THE DATA FROM BULGARIA

The suggestions of the earliest spread of the domestic fowl in the Bulgarian lands refer to the end of the Bronze Age. П е т р о в (1986) believes that "... it is natural to suppose, that the Domestic Fowl appeared in the Bulgarian lands about the end of the Bronze Age (1200 B.C.), when the Thracian civilization was at its height." (p. 231). He points out that "It is possible to make valid statements with the discovery of the image of ancient monuments of art. No finds of that type are known in the Bulgarian lands up to the 1st century A.D.". On the other hand, Nikolay Boev reported discoveries of "small statuettes of a cock at the Burgas Museum", dating from the Hellenistic period (pers. comm.), i.e. much before the 1st century A.D. П е т р о в (1986) justifies his assumption that the Domestic Fowl was known to the Thracians, which is evidenced through the images of cocks on the mosaics of the temple of Fortuna at Oescus, at the mouth of the



Fig. 2. A relief of a cock on a monument in honour of Dionysius from the island of Delos, Greece (3rd century B. C.) (after Т а х о - Г о д н, 1989)

Iskar River (off Gigen) (p. 231). Such an image exist indeed (Fig. 1), however with a clear mistake, as Oescus was a Roman town, not a Thracian one, and Oescus was in existence for about 600 years from the end of 1st century B. C. to the 6th century A.D. Thus the mosaic of Oescus may prove that the Domestic Fowl was already present in the Bulgarian lands by the end of the 1st millenium B.C.

Т о т е в (1958) indicates that domestic fowl in Bulgaria were known as early as the 4th century B.C. from the Greek town of Seuthopolis, at the village of Koprinka (Kazanluk), today at the bottom of the Koprinka Dam. However he does not mention whether bone remains of the of the species or the images of fowl were found.

As it is evident from above, the hypotheses and facts on the introduction of the Domestic Fowl on the Balkans and in Europe cover an extended period of about 1300 years (1200 B.C. to the 1st century A.D.). Two ancient finds in Bulgaria are interesting in the light of these data, which considerably shorten the period of possible appearance of *G. gallus* on the Balkan Peninsula. They deny most of the assumptions cited on p. 40—41 and confirm the opinion for the earlier appearance of the Domestic Fowl.

The first find is a very well preserved black-figured kylix (wine bowl) from Sozopol, from the 3rd quarter of the 6th century B.C. with two cocks, facing one another, and a

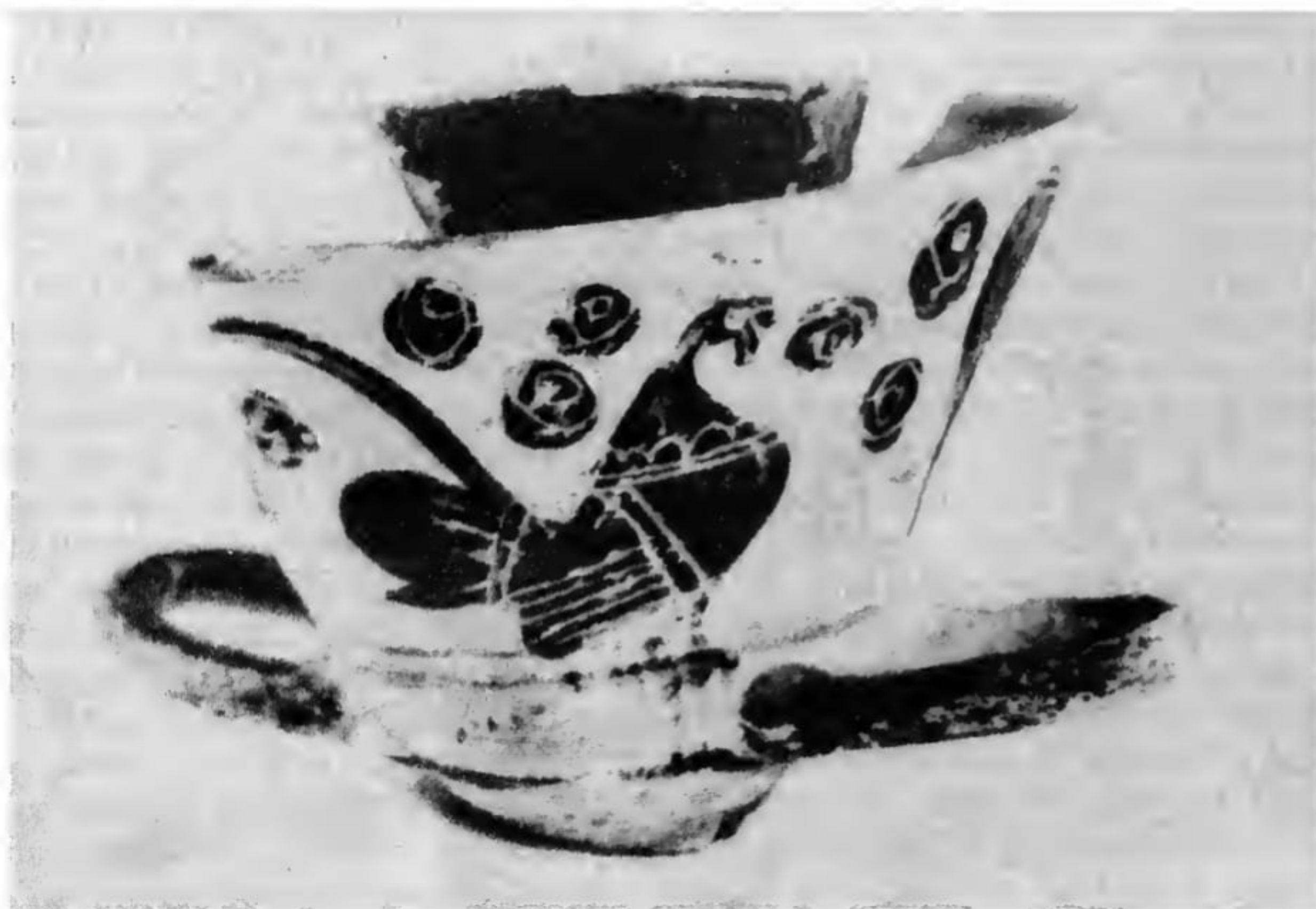


Fig. 3. A kylix from Sozopol, East Bulgaria (6th century B. C.) (after Г о р о в и др., 1967)

“lotus blossom between them” (Г о р о в и др., 1967). Kept in the Burgas Historical Museum so far it has not drawn the attention of zoologists (fig. 3). The decoration of this cup may suggest that the domestic fowl appeared on the Balkans at least as early as 6th century B.C., i.e. prior to about 2600 years when it played a major role in the religious rites regardless of whether it originated in — ancient Sozopol or it was imported from other regions of Greece. At that time Sozopol was a Hellenic town. Another cup of the same age (6 century B.C.) from a more southern Hellenic region (the town of Corinth; П и к а р, 1970) was decorated with an image of a cock. Thus, the 1300 year period of the probable spread of the species on the Balkans is effectively shortened by about 700 years, as the finds prove the inconsistency of the hypothesis of the appearance of the Domestic Fowl within the 5th century B.C. to the 1st century A. D.

The second Bulgarian find is older, dating from the 7th century B.C. found in the Thracian shrine of Kybela at Zaichi Vruh (Thaushan-Tepe), 7 km northeast of Yambol, on the site of the ancient town of Kabyle (1st millennium B.C. — 6th century A.D.). It consists of three well preserved bones — one tarsometatarsus of an adult female and two humeri of an adult specimen of *G. gallus* (Б о е в, Р и б а р о в, 1993). The material is kept in the osteological collection of the Historical Museum of Yambol (SE Bulgaria). These bone remains remove even more the lower terminus of the appearance of the Domestic Fowl on the Balkans, which shows that it probably fell prior to the 7th century B.C. The species was introduced in the Balkans, originally in some towns along the Black Sea coast and later reached the interior of the peninsula. Kabyle, situated on a bend of the Tundzha River, east of Yambol was one of these towns (fig. 4). The catchment area at that time was not probably deforested as it is today, and the river was much larger. The navigation along the river was of considerable importance for the inhabitants of Kabyle as a communication with the Ancient World of the entire southeastern part of the Balkan Peninsula. The active ties of Ancient Kabyle with the Aegean region at that period have been proved through archaeozoological material by conchiological finds by Р и б а р о в (1990).

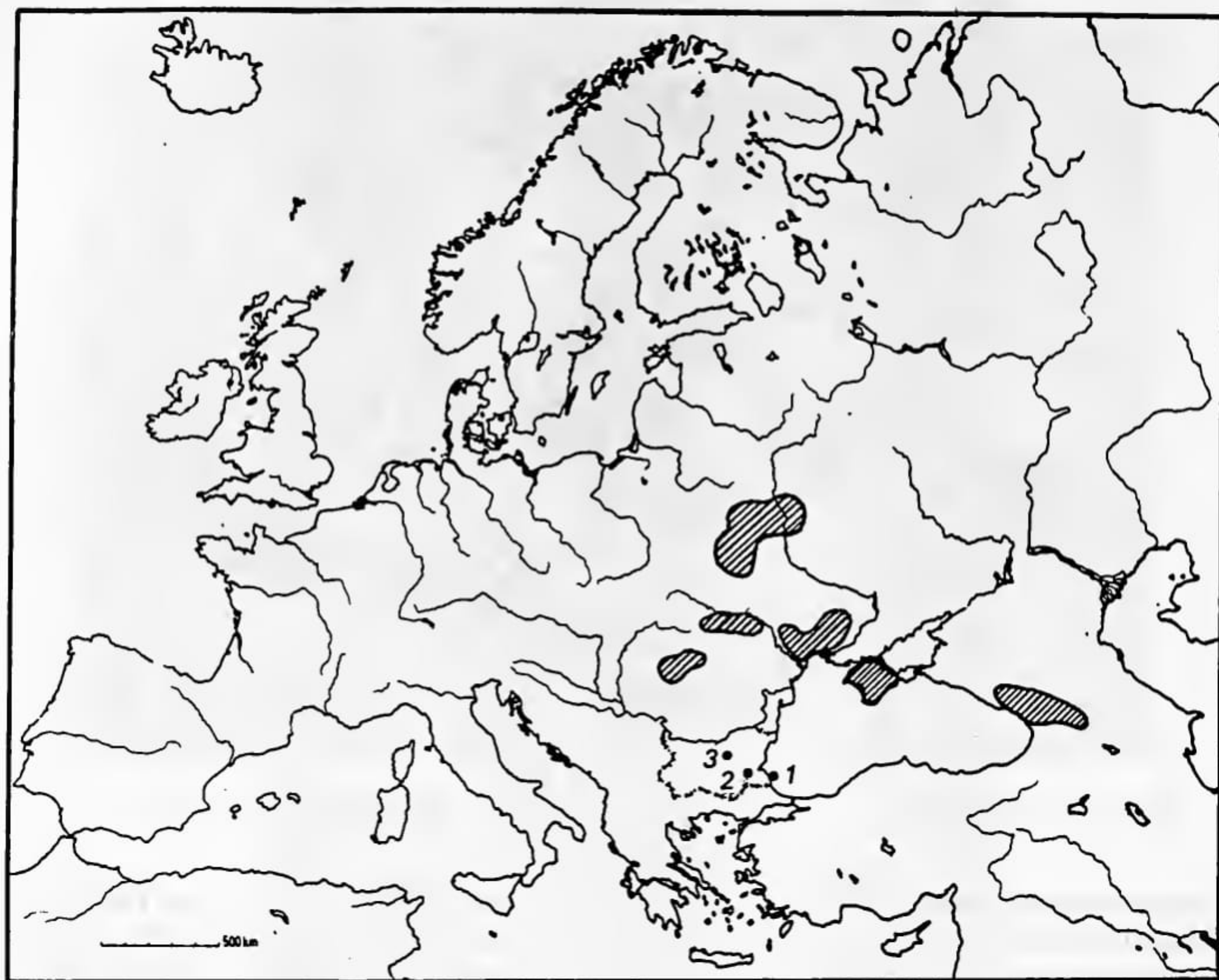


Fig. 4. Supposed distribution (hatched) of *Gallus* species (wild and domesticated) in SE Europe (Paleolithic to Iron Age) according to archaeological evidences from Ukraine, Byelorussia, Moldova, Romania and Georgia. The location of the three finds from Bulgaria

1 — kylix from Sozopol; 2 — Junglefowl bones from Kabyle; 3 — furcula from the Bacho Kiro Cave

The bone finds from Kabyle are the oldest dated bone finds of Domestic Fowl in Bulgaria and confirm once again that *G. gallus* was introduced on the Balkans (or existed at that time) before the second half (at least in the 7th century B.C.) of the 1st millenium B.C. We must mention a bone (furcula) of *G. gallus* reported from the Paleolithic cave Bacho Kiro in Northern Bulgaria by Bochen ski (1982), but the find is not dated exactly: "Similarly, the discovery in Bacho Kiro (in the top part of the deposits) of bones belonging to the domestic hen should be seen as an example of a bird kept by man." (p. 33).

MONOPHYLETIC OR POLYPHYLETIC ORIGIN OF DOMESTIC FOWL?

As it was already mentioned, some authors have expressed the assumption that other species of wild fowls, later domesticated, existed in the Paleolithic of Southeastern Europe, while the wild population became extinct because of the overhunting. Harrison (1978) express similar assumption and consider that Pleistocene finds of the *Gallus* species "... indicate the presence of a phasianid species, not necessarily *G. gallus*, which is still extant and had occurred over a wider range at an earlier period, or that a now extinct species osteologically similar to *G. gallus* had occurred in the area at that time." (p. 374).

The Late Pleistocene finds of *Gallus* sp. on the Caucasus (Imeretia — Gwardzhilas-Klde Cave after Б у р ч а к - А б р а м о в и ч (1966) and Yugo-Ossetia — Kudaro I Cave after Б у р ч а к - А б р а м о в и ч (1980) note also that "The discovery of wild fowl in the Upper Paleolithic of the Caucasus casts doubts on the prevailing theory of the monophyletic origin of Domestic Fowl coming from the Bankivian fowl from Southeastern Asia." (Б у р ч а к - А б р а м о в и ч, 1966, p. 99). Similar assumptions have been put forth in connection with the finds of the fowl from the Upper Pleistocene and the Lower Holocene in southern Ukraine much earlier: "... the composition of the Pliocene and possibly of Pleistocene fauna of Europe probably included a certain fowl, very close to the Asiatic *Gallus gallus* L., which evidently became the ancestor of the European Domestic Fowl." (В о и н с т в е н с к и й, У м а н с к а я, 1959, p. 330). These finds and also the newly described *G. karabachensis* leave smaller chances for the "monophyletic" origin of Domestic Fowl in particular in Southeastern Europe. These data coincide to the W e s t & B e n - X i o n g's (1988) statement, that the wild junglefowl has not been spread in north Europe and Asia during the Late Pleistocene and the Holocene. "Only domesticated fowl brought from the south and sheltered by man could have survived the freezing winter temperatures and lack of vegetative ground cover of northern China during this period." (p. 525). It seems, however, that such statement may be correct for the wild *Gallus* species only for northern regions of Eurasia, while in southern Ukraine, Transcaucasia, etc., the wild junglefowl survived till the end of the Pleistocene.

In spite of the fact that the bone remains of fowl have not yet been found in the Pleistocene and Early Holocene of Bulgaria (we do not include the finds from antiquity and the controversial furcula from Bacho Kiro Cave), most probably paleolithic fowls from south Ukraine and Transcaucasia were domesticated and later spread in the ancient settlements along the Black Sea, including the Balkan coasts. Evidently, the Southern Ukraine and Transcaucasia as refugiums, represented two of the last refuges of heatloving species of the Pleistocene genus *Gallus* in Eastern Europe, and possibly — in Europe at all. Subsequently owing to certain climatic and anthropogenetic causes, the range of the *Gallus* genus was gradually reduced to its present boundaries.

THE "NEW" OLD QUESTIONS

It is interesting that W e s t and B e n - X i o n g (1988) prove that the junglefowl were not domesticated first in the Ind Valley 9200 B.C.), but in Southeastern Asia (6000 B.C.) and "... taken north to become established in China, possibly spreading to European Celts via tribes of the Russian steppe." (p. 517). In this way, the authors hope that the archaeologists of the former U.S.S.R. can decide this knotty question. They try to gather some data also from more recent unpublished studies, and data from "journals of limited availability in order to illustrate the spread of chickens from Asia to Europe. Unfortunately, repeated attempts to obtain information from archaeologists in the U.S.S.R. have failed." (p. 517). The main part of the works referred in the present paper concern archaeozoological data about Domestic Fowl in Southwest regions of the former U.S.S.R. (Moldova, Ukraine, Russia, Crimea, Georgia and Armenia) and Roumania, omitted by W e s t and B e n - X i o n g (1988). They enrich the information on the Early Holocene distribution of fowl in Southeastern Europe (fig. 4).

In conclusion, it is clear, that no one, but three questions at least remain unresolved:

- 1) Did all domestic fowl originate from *G. gallus* species?
- 2) Did European domestic fowls originate from a native wild SE-European *Gallus* species, different from Asian domestic fowls, originated from *G. gallus*?
- 3) Did the Caucasian, Ukrainian-Moldovian and Crimean domestic fowls originate from the wild native Caucasian, Ukrainian-Moldovian and Crimean *Gallus* species respectively?

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ЗА ПОЯВАТА НА ДОМАШНАТА КОКОШКА (*GALLUS GALLUS DOMESTICA*) В БЪЛГАРИЯ И НА БАЛКАНСКИЯ ПОЛУОСТРОВ И ПО ВЪПРОСА ЗА ОДОМАШНЯВАНЕТО НА КОКОШКИТЕ (РОД *GALLUS* BRISSON, 1760) В ЮГОИЗТОЧНА ЕВРОПА

ЗЛАТОЗАР БОЕВ

(Резюме)

Становището на Ч. Дарвин за монофилетичния произход на домашната кокошка от южно-азиатския вид (*Gallus gallus*) през последните 40 години е подложено на сериозни възражения. Направен е преглед на многобройните палео-орнитологични и архео-орнитологични находки на различни представители на рода *Gallus* от плиоцен-холоцен в Югоизточна Европа — България, Гърция, Румъния, Украйна, Молдова, Белорусия, Грузия, Армения, Азербайджан и югозападните райони на Русия. Според по-разпространените схващания в

литературата най-ранната поява на домашната кокошка на Балканите се отнася към периода 1200 г.пр.н.е. — I в. от н.е. Две находки от България (кости от *Gallus gallus* от тракийското светилище при Кабиле от VII в. пр.н.е. и чаша за вино от гр. Созопол от VI в. пр.н.е. с изображение на петли) са указание за възможното проникване на домашната кокошка в България и на Балканите не по-късно от VII — VI в. пр.н.е. Допусканията на палео-орнитолозите от страните в Югоизточна Европа, че домашните кокошки произлизат от одомашнени диви представители на род *Gallus*, твърде близки до *Gallus gallus*, които са просъществували до късния палеолит в Закавказието и Южна Украйна, изглеждат съвсем обосновани и напълно правдоподобни.