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H O L Z M A U S E N

MARJETA ŠAŠEL KOS

The Tauriscan Gold Mine

Remarks Concerning the Settlement of the Taurisci*

I. The gold deposit mentioned by Polybius/Strabo

When the Celtic Taurisci conquered the southeastern Alpine regions some time in the beginning of the 3rd century B.C. and settled in the territories inhabited more or less densely by the Hallstatt period population, they brought with them different cultures and a different way of life. Some of their dwellings were built in lowland areas, often along rivers and important roads. They were reputed as skilled craftsmen and long-distance merchants, their emporia making full use of the potential of the navigable rivers. As is indicated by the similarities and certain uniformity of the archaeological material, they would have most probably come from the area of western Hungary across the Pannonian plain¹. By the time Aquileia was founded in 181 B.C., and various tribes of the Taurisci had been settled in most of present-day Slovenia for several generations, they would have absorbed its former inhabitants to a large extent, and memories of the rich culture of their ancestors must have faded considerably. The huge grave mounds of the latter probably inspired awe among the Celts, and golden objects from some „princely“ grave may have occasionally come to light, proclaiming the wealth of the previous society. The country had been rich and it can hardly be doubted that the Taurisci were seeking precious metals, as also were the Italians, who had settled in northern Italy in the course of the late 3rd, and in the 2nd century B.C.

Their exploration must have often been successful, but rarely sensational. An extraordinary discovery of gold, however, occurred in the territory of the Taurisci during Polybius' lifetime, as he reported in his, mainly lost, 34th book. This book, which was based mainly on first-hand knowledge, contained a great deal of geographical data and must have been of special interest for Strabo's *Geography*, therefore it is not surprising that several fragments from the book were saved for posterity precisely by Strabo. This is true for Polybius' note about a gold mine found in the land of the Taurisci, which is unfortunately preserved without context. It has been referred to several times in scholarly literature², and was lately the subject of two

* I would very much like to thank Prof. Dr. Gernot Piccottini for his kind willingness to read the typescript and for his valuable opinion on these problems.

¹ D. Božič, *Keltska kultura u Jugoslaviji. Zapadna grupa* [The Celtic Culture in Yugoslavia. The Western Group], in: *Praistorija jugoslavenskih zemalja* 5 (Sarajevo 1987) 855–897; see also Božič, *I Taurisci*, in: *I Celti* (ed. S. Moscati, O. H. Frey, V. Kruta, B. Raftery, M. Szabó), Milano 1991, 471–477.

² See, e. g., O. Davies, *Roman Mines in Europe*, Oxford 1935, 175; G. Alföldy, *Noricum*, London, Boston 1974, 34, with earlier literature.

special studies in which Polybius' mention of the mine has been analyzed from different standpoints³. This short passage should be quoted *in extenso* both in Greek and in translation, because it is precise and clear, containing Strabo's own additional explanatory remarks in addition to Polybius' report, and it should be analyzed sentence by sentence.

Polyb. XXXIV 10, 10–14 (= Strabo IV 6, 12 C 208): "Ἐτι φησὶ Πολύβιος ἐφ' ἑαυτοῦ κατ' Ἀκυλῆϊαν μάλιστα ἐν τοῖς Ταυρίσκοις τοῖς Νορικοῖς εὐρεθῆναι χρυσεῖον οὕτως εὐφυὲς ὥστ' ἐπὶ δύο πόδας ἀποσύραντι τὴν ἐπιπολῆς γῆν εὐθὺς ὀρυκτὸν εὐρίσκεσθαι χρυσόν, τὸ δ' ὄρυγμα μὴ πλείονων ὑπάρχειν ἢ πεντεκαίδεκα ποδῶν, εἶναι δὲ τοῦ χρυσοῦ τὸν μὲν αὐτόθεν καθαρὸν, κυάμου μέγεθος ἢ θέρμου, τοῦ ὀγδόου μέρους μόνον ἀφεψηθέντος, τὸν δὲ δεῖσθαι μὲν χωνείας πλείονος, σφόδρα δὲ λυσιτελοῦς· συνεργασαμένων δὲ τοῖς βαρβάροις τῶν Ἰταλιωτῶν ἐν διμήνῳ, παραχρῆμα τὸ χρυσίον εὐωνότερον γενέσθαι τῷ τρίτῳ μέρει καθ' ὅλην τὴν Ἰταλίαν, αἰσθομένους δὲ τοὺς Ταυρίσκους μονοπωλεῖν ἐκβαλόντας τοὺς συνεργαζομένους. ἀλλὰ νῦν ἅπαντα τὰ χρυσεῖα ὑπὸ Ῥωμαίοις ἐστί. κάνταῦθα δ', ὥσπερ κατὰ τὴν Ἰβηρίαν, φέρουσιν οἱ ποταμοὶ χρυσοῦ ψῆγμα, πρὸς τῷ ὀρυκτῷ, οὐ μέντοι τοσοῦτον.

„Polybius says that in his time a gold mine was discovered near Aquileia in the region of the Norican Taurisci which was so convenient to exploit that it was sufficient for the diggers to remove two feet of earth from the surface to find gold at once. The excavated trench was not deeper than fifteen feet. Part of this gold consisted of nuggets as big as a bean or a lupine, which in the course of smelting lost only one eighth of its weight; some of it required much more smelting, but was nonetheless very profitable. After the Italians had been working together with the natives for two months, the price of gold throughout Italy immediately dropped by one third. When the Taurisci heard of this, they expelled the other workers with the intention of establishing a monopoly. Now, however, all the gold mines are in possession of the Romans. In this region, too, as in Iberia, alluvial gold is being found in the rivers, in addition to the primary deposits of gold, but not in such quantities“.

Polybius supposedly wrote his 34th book between 144 and 129 B.C.⁴, although he most probably collected material for it in the course of his travels in Cisalpine Gaul and the Alps before 150 B.C.⁵. It would therefore seem very likely that the gold deposit had been found before this date; theoretically, however, Polybius could have added this information later, while he was writing the final version of the book, that is, in the second half of the 2nd century B.C. Quite certainly the discovery of gold occurred before 129 B.C., since neither Polybius nor Strabo referred in this context to the expedition of C. Sempronius Tuditanus that year against the Histri, Taurisci, and Iapodes. The nature and intentions of Tuditanus' military campaign are not at all

³ J. Šašel, *Miniera aurifera nelle Alpi Orientali*, Aquileia Nostra 45/46 (1974/75) 148–152 (= *Opera selecta*, 538–540); C. Eibner, *Keltisches Gold aus den Alpen*, in: *Lebendige Altertumswissenschaft. Festgabe zur Vollendung des 70. Lebensjahres von Hermann Vetters*, Wien 1985, 91–94.

⁴ K. Ziegler, Polybios, in: *RE XXI 2* (1952) 1488–1489.

⁵ P. Pédech, *La méthode historique de Polybe*, Paris 1964 (Coll. d'Études anciennes), 528–529, 564–565.

clear, especially because the Liburnian regions, too, must have been in some way involved in the course of it, since Tuditanus emphasized in the inscription on his statue that he had reached the Tityus River (the present-day Krka: *Tuditanus qui domuit Histros in statua sua ibi inscripsit: Ab Aquileia ad Tityum flumen stadia M<M>*, Pliny, *N. h.* III 129)⁶. Tuditanus' expedition seems to have been a rather vast undertaking, mainly directed along the coast, and certainly does not seem to have been provoked by the expulsion of the Italian gold-diggers and merchants by the Taurisci. Although the two events are not connected in the sources, J. Šašel nonetheless hypothesized that the hostile action of the Taurisci may have provoked a reaction from the Roman senate and prompted Tuditanus' military operation against the Taurisci and other peoples⁷. In reality, it seems more probable that this was just one of several hostile actions on the part of the Taurisci, which in general characterized their policy towards the Roman state. However, in the case that the gold deposit had been discovered before 150 B.C., there would be no grounds to connect the two events, if only for chronological reasons.

II. The Taurisci and the Norici

The Histri, Taurisci, and Iapodes were in general hostile to the Romans; after the submission of the Histri (in 177 B.C.), the Taurisci and Iapodes must have felt even more threatened than before by Roman expansion — whether disguised or undisguised. There must have been many greater or lesser offences perpetrated by them against the Romans. These were still two powerful confederations of tribes who endeavoured to gain control of the route across the Ocra pass (below present-day Mt. Nanos, at Razdrto), possibly in possession of the Carni (cf. Pliny, *N. h.* III 131: *in hoc situ interiere ... Carnis Segesta et Ocra*), which was a part of the important Amber Route and the most convenient transition area between the Balkan and Apennine peninsulas⁸. The geopolitical and strategic position of these transit regions was of enormous importance, and the Romans also entered the struggle for their supervision, if not possession. The key points on this section of the road were Tergeste, a village of the Carni, the Ocra pass below the mountain of the same name, probably also belonging to the Carni, the Tauriscan *emporium* at Nauportus, their pass at Atrans and their settlement at Celeia, and further to the northeast the region of Poetovio, likewise Tauriscan, but possibly under the strong influence of Regnum Noricum.

⁶ M. Gwyn Morgan, *Pliny, N. H. III 129. The Roman Use of Stades and the Elogium of C. Sempronius Tuditanus (cos. 129 B.C.)*, *Philologus* 117 (1973) 29–48; G. Bandelli, *Contributo all'interpretazione del cosiddetto elogium di C. Sempronio Tuditano*, in: *Aquileia repubblicana e imperiale*, Udine 1989 (Ant. Altoadr. 35), 111–131; M. Cerva, *Roma e „la sottomissione“ della Liburnia*, *Atti e Memorie della Società Istriana di Archeologia e Storia Patria* 96 (n. s. 44), (1996) 7–18.

⁷ Šašel (n. 3) 148 (= *Opera selecta*, 538). Thus also E. Swoboda, *Carnuntum. Seine Geschichte und seine Denkmäler*, Graz, Köln⁴ 1964, 227f.

⁸ See for the Amber Route: *Lungo la via dell'Ambra. Apporti altoadriatici alla romanizzazione dei territori del Medio Danubio (I sec. a. C. — I sec. d. C.)*. Atti del Convegno di Studio, Udine – Aquileia 16–17 settembre 1994, ed. M. Buora, Udine 1996.

The Norican kingdom, which must have developed as a decisive political power at the latest in the very beginning of the 2nd century B.C., no doubt played the most important role in the eastern Alps⁹; a *hospitium publicum* with the Romans is attested in 113 B.C., when the Cimbri invaded Noricum, but it is very likely that it existed at a much earlier date¹⁰. In contrast, the Taurisci were in general openly hostile to the Roman state¹¹; there are several indications that the confederacy of the Tauriscan tribes, most probably identical with the *Alpini populi* in Livy (XLIII 5, 2, when reporting about the illegal expedition of the consul C. Cassius Longinus in 171 B.C. from Cisalpine Gaul to Macedonia; cf. Steph. Byz., cit. *infra*), then dependent on the Norican king, attempted to create a hegemony in the southeastern Alpine regions. They wanted to shake off any dependence on the Norican kingdom, which in turn strived to extend its authority over the Tauriscan regions¹². G. Alföldy who, following common opinions, located the gold mine in the centre of the Norican kingdom, identifying it with the so-called „Tauerngold“, consequently regarded Tuditanus' expedition as having no connection with the expulsion of the Italian gold-seekers and merchants¹³. However, both events are related to the Taurisci in the contemporary sources. Since the gold deposit mentioned by Polybius and Strabo has often recently been located in the Norican kingdom, it seems worthwhile to reexamine the possibilities offered by the sources for its location.

Strabo claimed that the gold mine was discovered during the lifetime of Polybius in the country of the Norican Taurisci, not far from Aquileia. Contrary to how it may seem at first glance, the expression κατ' Ἀκυλῆϊαν is geographically not precise; it obviously indicated merely the more or less broad „Hinterland“ of the city, which, as the northeasternmost colony in Cisalpine Gaul in the course of the 2nd century B.C., may have served the readers of Polybius' *History* as a geographical reference for regions outside the limits of Cisalpina. These regions may well have extended relatively far from Aquileia, as in Polybius' time no toponym existed east and north of the city with which the contemporary Greek and Roman readers would have been familiar in terms of geographical orientation.

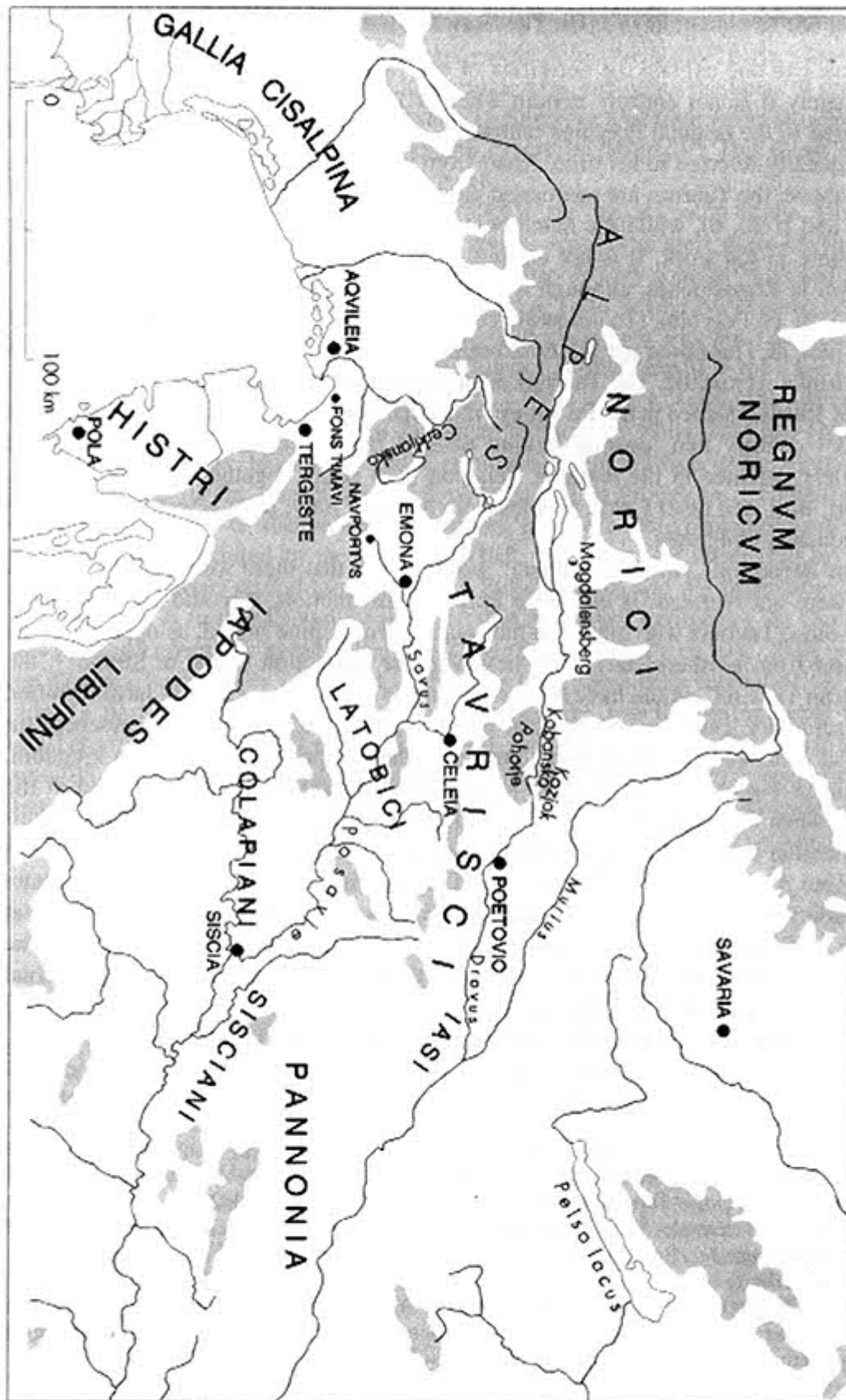
⁹ See among others, G. Winkler, *Noricum und Rom*, in: ANRW II 6 (1977) 183ff.; G. Dobesch, *Die Kelten in Österreich nach den ältesten Berichten der Antike*, Wien, Köln, Graz 1980; G. Piccottini, *Die Römer in Kärnten*, Klagenfurt 1989, 5ff.

¹⁰ G. Dobesch, *Zum hospitium publicum zwischen Rom und dem Regnum Noricum*, *Römisches Österreich* 4 (1976) 17–37.

¹¹ M. Šašel Kos, *The End of the Norican Kingdom and the Formation of the Provinces of Noricum and Pannonia*, in: Akten des IV. intern. Koll. über Probleme des provinzialröm. Kunstschaffens / Akti IV. mednarod. kol. o problemih rim. provincialne umet, Celje 8.–12. Mai / maj 1995, ed. B. Djurić, I. Lazar, Ljubljana 1997 (Situla 36), 21–42, with the relevant earlier bibliography.

¹² Their expansionistic policy is also reflected in the distribution and overstriking of the so-called eastern and western Norican coinage, i. e. the Tauriscan and Norican coins, see P. Kos, *Keltski novci Slovenije / Keltische Münzen Sloweniens*, Ljubljana 1977 (Situla 18); R. Göbl, *Die Hexadrachmenprägung der Gross-Boier. Ablauf, Chronologie und historische Relevanz für Noricum und Nachbargebiete*, Wien 1994.

¹³ Alföldy (n. 2) 34.



III. The Norican Taurisci

How can one explain the definition of the Taurisci as the Norican Taurisci? Unfortunately it is not entirely certain whether the adjective „Norican“ had already appeared in the original Polybius' narrative, or whether it was added by Strabo, and consequently referred to his time. Apart from the passage referring to the gold mine, cited above, the Taurisci are mentioned altogether three times in Polybius (II 15, 8; II 28, 4 and II 30, 6), while the name Noricum or that of the Norici does not appear elsewhere in his work. It is not entirely clear how to interpret the mention of the *Teriskoi* in Eratosthenes, although it is preserved by Stephanus Byzantius under the *Tauriskoi* of Polybius (Ταυρίσκοι, ἔθνος περὶ τὰ Ἀλπεῖα ὄρη, λέγονται καὶ Ταυρίνοι, ὡς Πολύβιος τρίτῳ. Ἐρατοσθένης Τερίσκους αὐτοὺς φησι διὰ τοῦ ἔ, οἱ καὶ Ταῦροι λέγονται). The Taurisci mentioned in the three passages in his 2nd book are the Taurisci settled in the Po valley who came into conflict with the Romans in the late 3rd century and, despite having offered brave resistance, were eventually definitely defeated in the battle at Telamon (225 B.C.), together with the Gaesati, Insubri, Boii, and other Celtic peoples from northern Italy, from where some of them consequently emigrated.

The definition „Norican Taurisci“ would imply that there were certain Taurisci who were not Norican; if this were Polybius' distinction, it would most probably mean those Taurisci who inhabited the southeastern Alpine region, as opposed to the Taurisci from northern Italy¹⁴. If, however, the distinction is that of Strabo¹⁵, the „Norican Taurisci“ would have referred to Strabo's own time, and may have signified Taurisci under some kind of Norican political influence, as opposed to independent Taurisci who were (at some point) not under the authority of the Norican kingdom. This latter possibility would seem to me more probable, since Strabo lived in the period when the name of the Taurisci practically disappears from the sources (their last mention is related to their defeat during the Illyrian wars of Octavian in 35–33 B.C. [see Appian, *Illyr.* 16; Dio IL 34, 2], and during the Augustan conquest under the leadership of Tiberius and Drusus [Strabo IV 6, 9 C 206]), and is replaced by that of the Noricans. He may have felt that they needed an additional qualification. The widespread opinion has formerly prevailed that the Taurisci had been the original inhabitants of the Norican kingdom, their name having been derived from, or related to, the Tauern Mts., Teurnia (St. Peter in Holz), Taurinum (Torino) and even to Taurunum (Zemun near Beograd)¹⁶. This thesis, mainly based on linguistic aspects and often questioned, has in part also been accepted by G. Alföldy¹⁷. Several scholars

¹⁴ Thus G. Zippel, *Die römische Herrschaft in Illyrien bis auf Augustus*, Leipzig 1877, 118; P. Petru, *Die ostalpinen Taurisker und Latobiker*, ANRW II 6 (1977) 482.

¹⁵ Thus, for example, W. Schmid, *Römische Forschung in Österreich 1912–1924. Die südlichen Ostalpenländer*, Ber. Röm. Germ. Komm. 15 (1923/24) 197, n. 67.

¹⁶ See among others, A. Holder, *Alt-celtischer Sprachschatz* II, Leipzig 1904 (repr. Graz 1962), 1767–1769; M. Fluss, Taurisci, in: RE V A 1 (1934) 1–14; Zippel (n. 14); A. Graf, *Übersicht der antiken Geographie von Pannonien* (Diss. Pann. ser. I, 5), 1936, *passim*; H. Müller-Karpe, *Zeugnisse der Taurisker in Kärnten*, Carinthia I 141 (1951) 594–677.

¹⁷ G. Alföldy, *Taurisci und Norici*, Historia 15 (1966) 224–241; cf. idem, *Noricum* (n. 2) 25–27.

have, on the other hand, based their analyses on careful examination of the ancient literary sources, mainly historical and geographical, in which the Taurisci are either *expressis verbis* located south of the Karavanke Alps, including the areas of present-day northwestern Croatia and southwestern Hungary, or else their name is noted in a general way, such that their precise location cannot be defined¹⁸. This thesis is also well supported by the archaeological evidence¹⁹.

The evidence that the Taurisci were settled in the regions south of the Alps, occupying most of present-day Slovenia, is double scaled, as their presence there is confirmed both by the data in the Greek and Roman literary sources²⁰, as well as by the archaeological material, identified as the La Tène period Mokronog cultural group²¹. Nauportus is the only identified toponym connected with the Taurisci in the ancient literary or epigraphic sources (the Taurisci are mentioned in the *elogium* for C. Sempronius Tuditanus from Aquileia, *CIL* V 8270 = *Inscr. Aquil.* 28). Otherwise, an unidentified Noreia is located in Tauriscan territory by Pliny the Elder (*N. h.* III 131). Aquileia, as we have seen above, is only noted in relation to the Taurisci by Polybius/Strabo for the sake of their readers, to give them a rough geographical orientation for the story of the gold-mine. Strabo, however, noted unequivocally that Nauportus was inhabited by the Taurisci (VII 5, 2 C 314); it is implied in his statement that they were settled throughout the Emona Basin and the broader area surrounding it. It is further known from Strabo that the transit territory of the Ocra pass was the border territory between the Carni and the Iapodes (IV 6, 10 C 207); clearly, the Taurisci were vitally interested in the pass area, since they controlled the trade along a part of the Amber Route, and handled the goods coming from Aquileia/Tergeste to their *emporium* at Nauportus, and from there further down to Segesta/Siscia and the Danube. It is evident that the Ocra pass would have been disputed between the three tribes, and that the Tauriscan settlement actually extended westwards well in the direction of Ocra. They are attested in the vicinity of Cerknica Lake,

¹⁸ R. Egger, *Ricerche di storia sul Friuli preromano e romano*, Atti dell'Accademia di Scienze, Lettere e Arti di Udine 13 (1954–1957) 385–388; H. Vetters, *Zur ältesten Geschichte der Ostalpenländer*, JÖAI 46 (1961–1963) 201–228; J. Šašel, *Lineamenti dell'espansione romana nelle Alpi Orientali e nei Balcani occidentali*, in: *Aquileia e l'arco alpino orientale*, Udine 1976 (Antichità Altoadr. 9), 78–81 (= *Opera selecta*, 415–422); Petru (n. 14) 473–499; see also P. W. Haider, *Zu den „norischen Tauriskern“*. Eine quellen- und literaturkritische Studie, in: *Hochalpine Altstrassen im Raum Badgastein – Mallnitz*, Wien 1993 (Böcksteiner Montana 10), 219–271, where earlier literature is cited and much material is admirably collected (some of the philological interpretations of Greek and Roman passages, however, perhaps lack adequate precision); Šašel Kos (n. 11); cf. lastly M. Guštin, *Taurisci. Verknüpfung der historischen und archäologischen Interpretation*, in: E. Jerem, A. Krenn-Leeb, J.-W. Neugebauer, O. U. Urban (edd.), *Die Kelten in den Alpen und an der Donau. Akten des Internationalen Symposiums St. Pölten, 14.–18. Oktober 1992*, Budapest, Wien 1996, 433–440 (the historical explanation is imprecise).

¹⁹ Božič (n. 1).

²⁰ Šašel Kos (n. 11).

²¹ Božič (n. 1).

as is corroborated by the archaeological material²². Towards the east and northeast, the Taurisci were settled in the Celeia and Poetovio regions, and reached even further to the northeast, extending almost up to Lake Balaton²³.

Strabo, basing his information on Posidonius, mentioned them several times together with the Boii and the Scordisci; their territories were invaded by the Cimbri (VII 2, 2 C 293; see also VII 3, 2 C 296). Later, they were attacked by the Dacians under Burebista (VII 3, 11 C 304; VII 5, 2 C 313). The rather widespread settlement of the Taurisci in the eastern direction is also confirmed by Pliny (*N. h.* III 148: ... *Mons Claudius, cuius in fronte Scordisci, in tergo Taurisci*). The league of the Tauriscan tribes, including the more or less Celticized Hallstatt period population, also inhabited present-day Lower Carniola, extending to the region of the Colapiani (a people under strong Iapodian influences, who may or may not have been included in their league), and Segesta/Siscia and the lands of the Segestani, which is well confirmed by Strabo who says that goods from Nauportus were transported to Segestica, „the cargoes reaching the Pannonians and the Taurisci“ (IV 6, 10 C 207)²⁴. These Taurisci, known during the Principate under the name of the Latobici, seem to have always remained outside the sphere of the Norican kingdom, mainly because they were located too far from its centre, and also because they must have successfully resisted the expansionistic policies of the Norican kingdom. This does not mean that during certain phases they could not have had a cooperative policy towards the Norican kingdom, such as possibly around 170 B.C., when the brother of Cincibilus (who was most probably the Norican king, although vaguely termed as *rex Gallorum* in Livy XLIII 5, 1) intervened on behalf of the *Alpini populi* (see above) — if these have correctly been identified with the Tauriscan tribes²⁵. As was already emphasized, the Taurisci may have been involved in some kind of antagonism with the Noricans; certainly, however, they led in general a hostile policy towards the Roman state.

²² See partly on this theme J. Horvat, *Ausbreitung römischer Einflüsse auf das Südostalpengebiet in voraugusteischer Zeit*, in: *Provinzialrömische Forschungen. Festschrift für Günter Ulbert zum 65. Geburtstag*, Espelkamp 1995, 25–40.

²³ Božič (n. 1); D. Pirkmajer, *Kelti na Celjskem. Arheološka razstava Pokrajinskega muzeja Celje (Die Kelten in der Region Celje)*, Celje 1991; D. Božič, *O latenskih najdbah na območju Ptuja (Concerning the La Tène Finds in the Ptuj Area)*, in: *Ptujski arheološki zbornik*, Ptuj 1993, 189–204; M. Tomanič-Jevremov, M. Guštin, *Keltska lončarska peč s Spodnje Hajdine pri Ptujju (A Celtic pottery kiln from Spodnja Hajdina near Ptuj)*, *Arh. vest.* 47 (1996) 267–278.

²⁴ The order of the peoples noted by Strabo should rather be inverted: the Taurisci, settled along the Sava valley and in the valleys of the Krka (= Corcoras) and the Kolpa/Kupa (= Colapis, the later Colapiani), and the Pannonians east of Segesta. This passage may be seen as contradicting his statement in VII 5, 2 C 314, where he claims that Nauportus was a settlement of the Taurisci. The two passages taken together would equal the statement that „the Taurisci traded as far as Segesta with the Pannonians and the Taurisci“. Rather than necessarily postulating two chronologically different sources I see two possible explanations. Either Strabo neglected to say „with the other Taurisci“, or else he erroneously noted the Taurisci in place of the Scordisci.

²⁵ Šašel Kos (n. 11).

As is well illustrated by the sources, Regnum Noricum, a loose (con)federation of small principalities, wanted to gain as much neighbouring territory as possible, or at least extend its authority over the neighbouring areas; during certain periods it may have gained more political influence within the Tauriscan lands, during others the latter may have been politically independent. It may have happened that as early as perhaps in the course of the first half of the 2nd century B.C., the Norican kingdom gained some influence over the Celeia and Poetovio regions — those nearest the kingdom — and those Taurisci would thus have properly been termed the Norican Taurisci either by Polybius or by Strabo. Political allegiances and degrees of dependence may have varied from period to period; in the second half of the 2nd century and in the beginning of the 1st, these Taurisci may have enjoyed independence, but in the course of the 1st century B.C. they (again) became dependent on the Norican kingdom. The Norican conquest of these regions is also very well reflected in the coin finds. Western Norican tetradrachms were circulating mainly in Carinthia, while eastern Norican coinage was predominant in Slovenia, western Norican coins having been over stamped with the eastern Norican type in the earlier phase of their circulation. In the later phase, the western Norican coins circulating south of the Karavanke Alps were no longer over stamped; no doubt some time in the course of the 1st century B.C. the Norici (again) extended their rule over the Tauriscan regions south of the Karavanke Alps²⁶. It is not clear from the sources to what extent and where exactly this had occurred earlier. It should perhaps not be excluded that Pliny the Elder was referring to the Taurisci of the Celeia and Poetovio regions when he stated that those who had once been known as Taurisci, were in his time known as Norici (*N. h.* III 133: *quondam Taurisci appellati, nunc Norici*). These must have undoubtedly been two of the most important Tauriscan centres; in the early Principate, both became parts of the province of Noricum; Celeia was one of the province's most important administrative centres, whereas Poetovio (known as πόλις Νορικῶν in the late Roman period) was for military-administrative reasons separated from Noricum and subordinated to the province of Illyricum, the later Pannonia. Pliny's statement is well in accordance with that of Strabo, who noted that the Taurisci were a part of the Noricans (IV 6, 9 C 206: ... τῶν δὲ Νορικῶν εἰσι καὶ οἱ Ταυρίσκοι).

When Polybius/Strabo claimed that gold was discovered in the land of the Taurisci, be it the Norican Taurisci or not — and as we have seen, it is not possible to determine with certainty whether the explanatory adjective was added by Polybius, or, rather, by Strabo — the various regions, whose extent has been sketched above come into consideration. In the ancient sources, the Taurisci are never located in the Norican kingdom. However, there are no known gold deposits in Slovenia, while on the other hand, gold extraction is well attested in Austria (the so-called „Tauerngold“)²⁷. The gold-mining region situated nearest Aquileia is located south of the Hohe Tauern, well accessible from Aquileia along the valley of Tagliamento (Tilment), across the Pontebba pass and the valley of Kanal (Kanaltal, Kanalska

²⁶ Kos (n. 12); idem, *The Monetary Circulation in the Southeastern Alpine Region ca. 300 B.C. — A.D. 1000*, Ljubljana 1986 (Situla 24), 20–24.

²⁷ Davies (n. 2); U. Täckholm, *Studien über den Bergbau der römischen Kaiserzeit*, Diss. Uppsala 1937, 26.

dolina), *i. e.* in upper Carinthia, in the Teurnia region, the centre of the Alpine gold-field and also the centre of the Norican kingdom. It is therefore not surprising that Polybius' gold mine has been located by several scholars somewhere in these regions²⁸. Alluvial gold is further mentioned by Strabo in the neighbourhood of Noreia (V 1, 8 C 214). Noreia has not been identified to date, but again it is not entirely certain — despite the name of the town — whether it should be located in the Norican kingdom, or, rather in the lands of the Taurisci, since Pliny the Elder mentioned a Tauriscan Noreia (*N. h.* III 131). Noreia seems to be a pre-Celtic name²⁹, it was a toponym and the name of a deity³⁰; these may have been names older than the Celtic invasion, and may have given the (prestigious) name to a Celtic kingdom, which certainly also comprised a strong, more or less Celtic influenced, Hallstatt period population. A Celtic kingdom that could call itself Norican, would have been able to claim predominance over the other Celtic, and/or Celticized, principalities in the broad area, and a leading role in the eastern Alps. Strabo's data concerning Noreia are unfortunately incorrect and cannot be improved by philological methods. When describing Aquileia as an *emporium* for the inhabitants of the Illyrian regions, he claimed that a navigable river connected Aquileia with Noreia (at a distance of 1200 stades, ca. 222 km; however, such a river does not exist), and that this was where Cn. Papirius Carbo was defeated by the Cimbri, adding that near Noreia alluvial gold was being found in large quantities and an iron industry was developed. Noreia has most often been located north of the Karavanke Alps, and even identified with the settlement at Magdalensberg (Štalenski vrh)³¹, but there are several indications that would also permit locating it in the southeastern Alpine region³². However, this problem deserves a special analysis and lies outside the scope of the present article.

IV. Gold in Slovenia?

Gold deposits discovered in Carinthia or north of it could hardly have been referred to in the ancient sources as having been found among the Taurisci. These regions were the core of Regnum Noricum and there is no reason why they should not have

²⁸ Davies (n. 2); his opinion has in general been accepted subsequently, thus for example by H. Quiring, *Geschichte — Vorgeschichte, Altertum und Mittelalter*, in: F. Friedensburg, *Gold*, Stuttgart ²1953 (Die metallischen Rohstoffe 3), 41–42; see also Alföldy (n. 2) 34, who cited earlier opinions concerning the location of the mine, also p. 293, n. 41; Eibner (n. 3).

²⁹ Despite the fact that it is listed by Holder among Celtic names, see *Alt-celtischer Sprachschatz* II (n. 16) 760–761, citing the opinion of Zeuß.

³⁰ For the problem of Noreia, see Alföldy (n. 2) 47–51; a smaller road-station named Noreia is also documented between Matucaium and Ad Pontem in St. Margarethen am Silberberg.

³¹ Alföldy (n. 2) 35ff., but the discussion has since continued. The problem will be dealt with elsewhere. The settlement at the Magdalensberg was called Virunum, see G. Dobesch, *Zu Virunum als Namen der Stadt auf dem Magdalensberg und zu einer Sage der kontinentalen Kelten*, Carinthia I 187 (1997) 107–128.

³² See, *e. g.*, M. Schilcher, *Noreia, der Ort der Kimbernschlacht*, in: *Frühgeschichte und Sprachwissenschaft*, Wien 1948 (Arbeiten aus dem Institut für allgemeine und vergleichende Sprachwissenschaft, Graz, ed. W. Brandenstein, Heft 1), 9–38, cf. also R. Pittioni, *Urzeit. Von etwa 80 000 bis 15 v. Chr. Geb.* (Geschichte Österreichs I, 1–2), Wien 1980, 194–197.

been called Norican. As shown above, the Taurisci were never located in Carinthia by any Greek or Roman writer, or on the evidence of any inscription. R. Egger and H. Vetters, two of the most illustrious Austrian scholars of the past generation researching Norican history, located the Taurisci south of the Karavanke Alps³³, and so did J. Šašel³⁴. However, no one has made any serious attempt to date to locate the problematic gold deposit more precisely within Slovenia. In terms of the geological structure of the country, the Pohorje Mts., Kozjak, and the Kobansko region (the broad area of Poetovio), consisting of metamorphic rocks, the oldest ore bearing beds in Slovenia, would have potentially been the most suitable area where gold deposits could theoretically have been expected³⁵. From the geological point of view, certain areas, such as the Julian and Karnik Alps, the Bled and Bohinj regions, should be excluded even as potential areas where gold could be discovered. Copper has been discovered in the Cerkljansko region in the hinterland of Idrija, and some deposits of lead and zinc (and even copper and mercury) are known in several sections of the Sava River regions, between Polhov Gradec, the Trbovlje region, and Čatež³⁶. However, no traces of gold have been discovered anywhere in these regions.

Polybius' description of the gold found by the Taurisci (in the form of rather large grains, big as beans or lupines) leaves no doubt that this was an ancient alluvial deposit, found in a geological stratum that had once been a river-bed, and where gold could have gathered in the course of time. Such terraces could even lie several hundred metres above a present-day river-bed, giving the impression that the gold found in them would have been a primary deposit of gold³⁷. Strabo's sentence, which he added to Polybius' report, is misleading in so far as it suggests the idea that the discovered gold would have been a primary deposit of gold, since he concluded that in the country of the Taurisci alluvial gold was also being extracted from the rivers.

Once it is established beyond any doubt that it is not the discovery of primary gold we are looking for, the possibilities of locating a site where alluvial gold had been found narrow down to the valleys of the gold-bearing rivers. In Slovenia, the only such rivers are the Drava (Drave) and Mura (Mur); no river with its source in Slovenia can carry gold. Certain regions along the middle course of the Drava, and also the Mura, were settled by the Taurisci; thus, historically considered, Polybius' mine could well be located in these regions. They are situated rather far from

³³ R. Egger, *Teurnia. Die römischen und frühchristlichen Altertümer Oberkärntens*, Klagenfurt 1963, 10; Vetters (n. 19) 209f., 228, suggesting that the mine would have been located in the land of the Taurisci in the border region of Carnia.

³⁴ Šašel (Miniera, cit. in n. 3), and in: *Lineamenti* (n. 18).

³⁵ For information on geological structures and the possibilities of gold deposits in Slovenia I am most grateful to Ing. Milan Bidovec and Prof. Dr. Matija Drovenik.

³⁶ M. Drovenik, M. Pleničar, F. Drovenik, *Nastanek rudišč v SR Sloveniji (The origin of Slovenian ore deposits)*, Geologija 23/1, 1980, *passim*, and the map.

³⁷ Thus already Täckholm (n. 27) 26, and Eibner (n. 1) 92. This opinion has definitely been confirmed by Ing. Milan Bidovec and Dr. L. Placer (The Institute for Geology, Geotechnics, and Geophysics), for which I would also like to thank them here. The passage in Strabo was erroneously considered as referring to the gold from the Tauern Mts. and taken at face value by F. Hofmann, *Gold, seine Lagerstätten und seine Gewinnung*, in: *Gold der Helvetier — Keltische Kostbarkeiten aus der Schweiz*, Zürich 1991 (Schweizerisches Landesmuseum), 37.

Aquileia, but if it is presumed that the gold would have been extracted under the control of the Taurisci from the Nauportus-Emona region or from Celeia, where their important settlements and centres of power were situated, Aquileia as a point of geographical orientation is not too distant.

The discovery of the gold mine was sensational and unexpected, thus *a priori* it should not be sought in a region where gold deposits would have been expected. It must have been unique in the broader area of discovery, was probably soon exploited and left no traces. Seemingly, it was found by Italic gold diggers; this information is implied in Polybius' report, since otherwise it would be difficult to explain why the Italians would have been collaborating with the Tauriscan workers from the very start³⁸. The Celts were known to have been good miners and expert metal workers, the Noricans were famous iron producers, manufacturing excellent iron products which were almost like steel. It is known from elsewhere in the Roman empire that the Romans were in general not innovative in the sphere of metallurgy, leaving mining to the local workers³⁹. Hence there would have been no need to import foreign mining engineers. The joint undertaking of the Taurisci and Italians can best be explained by the fact that the latter would have been on the spot, because they had discovered the mine and claimed rights of sharing the profit. The proximity of Aquileia could well explain their presence there.

To return to Polybius' text and his description of the technique of extracting pure gold. It is not entirely clear from his account how the actual metallurgical process should correctly be explained. He speaks of one eighth having been lost during the process of smelting, but it is not certain what exactly he understood as „smelting“; possibly several stages of a metallurgical procedure⁴⁰. In the course of refining of gold mixed with sand, the gold mass may be reduced by one seventh⁴¹. Gold is often found mixed with silver; and it could have been heated with salt which would bind the silver, producing a kind of slag which would remain on the inside of special resistant clay pots, leaving the gold in pure state. For the period in question, the middle of the 2nd century B.C., and considering the description of the smelting process, using salt seems to be the most probable way the Tauriscan and Italic metallurgists would have adopted to extract pure gold. Other possibilities would include making use of lead, or using mercury and producing gold by way of amalgamation; both techniques are mentioned, for example, by Pliny (*N. h.* XXXIII 60: lead [... *ut purgetur, cum plumbo coqui*]; XXXIII 99: mercury [*omnia ei (sc.*

³⁸ Thus also Dobesch (n. 9) 237 (on the mine, pp. 236–237), his arguments, however, are different: in his opinion the Italians had a better knowledge of mining and metallurgy.

³⁹ Täckholm (n. 27) 16–17.

⁴⁰ For information concerning the metallurgical aspects of Polybius' description of extracting gold I am most grateful to Prof. Dr. Andrej Paulin, Department of Metallurgy, University of Ljubljana. For data about early metallurgy in Slovenia see his forthcoming article: *Metallurgija neželeznih kovin na Slovenskem (The metallurgy of non-iron metals in Slovenia)*, in: *Zbornik za zgodovino naravoslovja in tehnike*, Ljubljana 1997. Several ancient metallurgical techniques concerning gold and silver are described by R. F. Tylecote, *The early history of metallurgy in Europe*, London, New York 1987, 44–47 and *passim*.

⁴¹ Täckholm (n. 27) 26.

argentum vivum) innatant praeter aurum; id unum ad se trahit)). It is not known whether or not the Celts had already discovered deposits of mercury at Idrija, however, this would not have been entirely impossible; smaller mercury deposits have otherwise also been discovered at Podljubelj, north of Hrastnik, at Litija, and at Knapovže near Medvode⁴². Mercury is currently used for producing pure gold from alluvial gold mixed with sand from the Drava River and elsewhere; the process, for example, has been documented in the 1980s with photographs and commentary by M. Bidovec at Donja Dubrava near Varaždin in Croatia, where two villagers developed a whole system of extracting gold from the Drava sand with the help of various tools of special wood and iron, and by making use of a technique of the amalgamation of gold and mercury⁴³. Since, as we have seen, the technique of using mercury to produce pure gold had already been known in antiquity, it could well be imagined that the means of extracting gold by the two mentioned Croatian gold-seekers, which was rather primitive, although sophisticated in various details, would not have differed much from that of the Tauriscan gold-seekers. Several stages of this process would have been similar, even if we instead assume that they used salt to acquire pure gold.

To conclude: the Taurisci are mentioned several times in the ancient literary sources. However, none of the citations would permit a conclusion that they would have been settled in the core of the Norican kingdom, *i. e.* north of the Karavanke Alps. On the contrary, archaeological remains from the middle and late La Tène periods, identified as the Mokronog cultural group, and typical of the Celtic sites in the southeastern Alpine area — excluding western Slovenia where the Inner Carniolan (Notranjska) and Idrija cultural groups are documented, and including parts of the western Croatia and southwestern Hungary — would confirm their specific identity *vis à vis* their northern neighbours⁴⁴. Consequently, no event related to the Taurisci, whether they are called the Norican Taurisci or not, could be ascribed to the Noricans in Carinthia.

Inštitut za arheologijo
ZRC SAZU
Gosposka 13
SLO-1000 Ljubljana

Marjeta Šašel Kos

⁴² Paulin (n. 40).

⁴³ M. Bidovec, *Raziskave zlata v naplavinah Drave in Mure* [Gold Exploration of the Drava and Mura Alluvial Deposits], unpubl. thesis, Ljubljana 1986.

⁴⁴ See P. Gleirscher, *Von Wollhaarnashörnern, Einbäumen, Wasseropfern und Keltenkriegerern. Vorrömische Siedlungsspuren in und um Klagenfurt*, in: *800 Jahre Klagenfurt. Festschrift zum Jubiläum der ersten urkundlichen Nennung* (ed. W. Deuer), Klagenfurt 1996, 97–116, with earlier literature; idem, *Die Kelten im Raum Kärnten aus archäologischer Sicht — Ein Forschungsstand*, in: *Die Kelten in den Alpen und an der Donau* (n. 18) 255–266. See also A. Lippert, *Ein latènezeitlicher Opferplatz in Teurnia bei Spittal an der Drau*, in: *Festschrift zum 50jährigen Bestehen des Institutes für Ur- und Frühgeschichte der Leopold-Franzens-Universität Innsbruck*, Bonn 1992 (Universitätsforschungen zur prähistorischen Archäologie 8), 285–304.