## CONSIDERATIONS ON THE GERMANIC NAMES OF METALS

by Edgar C. Polomé

When the Germanic peoples appeared in history, they had definitely entered the Iron Age for quite a while. Taking their cue from the Celts, they had developed a sizable cottage industry, using essentially bog-iron or limonite. Contrary to their eastern neighbours, the Balts and the Finns had to import iron implements (the iron lance points found in their territory before the 5th c. A.D. are Roman import). Iron was not in abundant supply, and was mostly reserved for the manufacture of arms. In the eastern part of the Germania, the mining of ore provided a better quality of iron. The smiths enjoyed a fairly high social status, as appears from their graves and is documented in the later literature. By the Roman time, they had mastered the technique of hardening the weak metal, and in certain areas, metallurgical installations acquired a remarkable production capacity, whereas other regions had to import iron products to cope with all their needs. Thus, in the territory of the Reudingi, in Jutland, the abundance of iron made it possible to open a lot of new land to the plough by felling trees with solid axes. Plutarch indicates that the Cimbrian cavalry had iron armor, but it may have come from Roman and Celtic booty, as the later Quadi still wore a cuirass made of a linen cloth on which horn shells were sown. Coats of mail only appear in the bog finds of the Migration Age. The Celts not only provided the technical knowledge of iron-smelting, but also the very word 'iron' to the Germanic people (cf., for more details, Birhan 1970: 126-37); the Celtic word was \*Isarno- (which survives in the toponym Isarnodori, lit. 'iron gates'); with the loss of intervocalic /s/, this yielded farn in Old Irish and haearn in Welsh; the Germanic term was, however, borrowed before the muting of /s/ and can be reconstructed as \*Isarna from Goth. eisarn, OHG Isarn, OE Isern (isen, iren). The etymology of the term is disputed. In the heydays of 'Illyromania', both the Celtic and Germanic words were assumed to derive from Illyro-Venetic \*eisarnon, but this did not solve the problem, particularly as /ei/ does not as a rule yield Celtic /i:/ (Beck 1986: 59). Nevertheless, several efforts were made to derive the term from the root \*eis- 'move rapidly, forcefully' (OInd. işirá-, Grk. hierós 'strong'; Lehmann 1986: 99). An older view was to link it with IE

\*ayos 'metal' (Lat. aes, Goth. aiz, ON eir, OHG ēr, etc.), in spite of the difficulties this explanation presents with the ablaut. Thus, no satisfactory solution can be found; the metal is, however, called rauði in ON, presumably after the red color of the ores (cf. Lat. raudus 'piece of ore', OCS rudá 'ore'), and Finn. rauta 'iron' is usually assumed to be borrowed from North Germanic. Others claim it is a 'Wanderwort' and look as far back as Sumerian urud!

The continuity between the Bronze Age and the Iron Age shows clearly that the latter did not appear as an outright revolution in the Germanic society, although, in the long run, it deeply affected the way of life, as the Germanic people were self-sufficient in iron and produced their own artifacts, whereas all bronze objects had to be imported. Deep into the Iron Age, bronze objects continued to be used or often preferred, such as kettles and fibulae. Copper metallurgy seems to enter the Germanic world at the same time as the working of precious metals like gold in Neolithic times; archeologists associate the process with the integration of the Globular Amphorra and the Corded Ceramic cultures as well as the Bell Beaker people into the Central European complex, and they consider the Hallstatt Culture as marking the initial phase of the Iron Age. Although a considerable number of artifacts date back to the Bronze Age in northern Europe, every scrap of metal had to be imported, and a vast network of trade routes developed through Central Europe, exchanging, e.g., amber for southern bronze implements. The development of better kilns led the way to adequate ovens to melt metal and merge the copper and tin ores into high quality bronze. Spectral analysis makes it possible to determine the region of origin of bronze (the Balkans, the Iberic peninsula and Italy are foci of diffusion of the metal). The term 'bronze' is recent: coming to the Gmc. languages from Italian through French about the XVIth century, its origin is disputed: some link it with Pers. biring/piring 'copper'; others claim it derives from late Lat. aes Brundusium, as Brindisi used to be reputed for its bronze factories. The Gmc. tribes must have had a term for the metal, but it was lost (de Vries 1971: 90). Practically, the same alloy of copper and tin yields 'brass', whereas other types of bronze use lead and zinc: a derivative \*aiz- (Goth. aiz 'money, metal coin', ON eir 'copper', OE ar, ær, OHG er 'ore'; OInd.áyas-, Avest. ayah- 'metal, iron', Lat. aes 'ore', etc.; Lehmann 1986: 22): \*aizina- (OHG ērin, OE ær(e)n. etc.), different from the MLat. aeramen (Codex Theodosius), preserved in Fr. airain 'brass'. As for the underlying IE term \*ayos- (\*H2éy-s-), it is of unknown origin, unless we surmise (with Pokorny 1959: 15) that it designated the flame-colored metal and derives from the root \*H2éy- 'burn, shine bright'.

That metals were named after their color is well documented fact: thus, Lat. aurum 'gold' (OLit. ausos, OPruss. ausis) is apparently named after the red color of dawn (cf. Lat. aurora < \*ausosa, Lith. aušrà; zero grade in OInd. uşáh); Lat. argentum 'silver': Grk. argós 'white' (cf. OInd. rajátam híranyam 'whitish gold, i.e. silver'); Goth. gul, ON gull, OE/OHG gold derives like OCS zlato and Latv. zèlts from the root \*g'hel- 'yellow' (Lat. helvus 'honey-yellow', Lith. želvas 'greenish', OHG gelo 'yellow', etc.), just as OInd. hiranyam, Avest. zaranya- is cognate with OInd. háris-, Avest. zairis 'yellow'. With Grk. khrusós apparently of Semitic origin, there is obviously no common Indo-European for 'gold', and the same goes for 'silver' whose North European name: Goth. silubr, ON silfr, OE siolufr/siolfor, OHG sil(a)bar; Lith. sidabras, Latv. sidrabs, OPruss. siraplis; OCS sirebro, has given rise to controversy: some have wanted to derive it from Akkad. šarpu, but a comparison with Basque zillar, zidar is much more plausible. Spain was a major source of silver in antiquity, and it was abundantly mined there by the Romans; moreover, the way of silver to northern Europe from the Middle East, via the Thracians, would be more difficult to retrace, although silver commerce was carried out in the eastern Mediterranean by the Phoenicians; the silver of Ancient Greece came mostly from the mines at Laurion in Attica. Only in the Middle Ages was silver mined in Sweden, Saxony and Bohemia.

An effort has been made to connect the term 'tin' with Goth. tains 'twig', ON teinn 'twig, sprout', OE tān 'twig', because prehistoric finds show the metal in the shape of small rods (MLG tēn actually means 'small metal rod'), but this remains rather unconvincing. Not more plausible is the assumed connection of the Gmc. term with the byform stannum of Lat. stagnum 'tin, mixture of lead and silver', which yielded Fr. étain 'tin'. Possibly, tin being of a light color, the derivation of the word from the root \*dey- 'shine, gleam' (OInd. dídeti, etc.; cf. de Vries 1971: 735) deserves reconsideration. The tin used prehistorically for the making of bronze came from (now fairly well exhausted) mines in Cornwall and the Scilly Islands off the coast, as well as from the Erzgebirge, and was the object of a fairly intense trade. Could the word for 'tin' belong to the pre-Celtic population of the British isles? If the term for the second component of copper thus remains rather obscure, 'copper' on the contrary is clearly borrowed

from Lat. cuprum, which replaced aes cuprium 'the ore from Cyprus' in the 3rd c. A.D.; the isle of Cyprus was indeed the main source of

copper in Antiquity.

Lead is abundantly found in Europe, nl. in Germany and in the eastern Alps where early Celtic cultures became familiar with it. Around the Mediterranean, in Spain as well as in Greece, its ores had a rich silver content, and the Romans mined it mostly in connection with the obtention of silver. The Ancients were unable to purify lead properly, and as the ores normally contains sizable amounts of silver, antimony and zinc, as well as traces of copper, tin and even gold, they could not get rid of all these elements when processing the metal, although they managed to eliminate most of the copper and the precious metals. Linguistically, Celtic and Germanic show similar terms for 'lead': OIr. luaide corresponds to OE lead, MHG lôt; must we posit a pre-Celtic \*pleud-/ploud- (cf. Birkhan 1970: 147)? This would imply that Germanic borrowed the word from Celtic after its loss of initial /p/. However, nothing points to such a late loan in Germanic (the assumption of Birkhan (1970: 148-52) that the term was only introduced in the 2nd c. A.D. in connection with the borrowing of the technique of plumbing, is hardly convincing), and both the Germanic and Celtic terms might derive from a common substrate language (de Vries 1971: 410; Mühlethaler 1978: 72-73). Anyhow, Germanic has a different word for 'lead', apparently based on its color, viz., \*blīwa-(ON blý, OHG blī(w)o which has been compared with Lith. blývas 'lilac, violet blue', but whose /i:/ has probably to be of Celtic origin for /e:/ in \*blewo- 'blue' (OHG blao, OE blæw, ON blár). However, since no term for 'lead' appears in Celtic as \*blewo-/bliwo-, the alternate explanation which links G Blei to Grk. mólibos/mólybdos 'lead' (Pre-Gmc. \*mli- > Gmc. \*bli-) is presumably more plausible; both would derive from the same pre-IE source; the case of Lat. plumbum is more obscure, but sometimes, <m> alternates with zero before labial, which would bring plumbum closer to mólubdos (Ernout-Meillet 1979: 516, 834); the term could be originally Iberian, as most of lead used in ancient times came from Spain.

Thus, when the names of metal do not reflect probable substrate

terms, they usually reflect the color of the metal.

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