

# Germanic populations and Steppe people

An example of the integration of material cultures  
The diffusion of the Stirrup in the eastern Merovingian area

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The presence of the stirrup in both the Italian territory and the Alamanno-Bavarian area, that is to say, the very South-Eastern part of the Merovingian area, is an interesting chapter in the relationship between these territories and the Carpathian Basin and in a wider sense, between Europe and the people of the Steppes. The Carpathian Basin, thanks to the Avar conquest had 'acquired' a new territorial unity and a certain socio-economic coherence which lasted until not much after the failed siege of Constantinople in 626.<sup>1</sup> Moreover, traditionally it is believed that the Avars introduced stirrups to Europe, along with other military innovations such as the composite bow and the *Lamellenpanzer*. This implies that the area around Danube, especially its upper parts, played a fundamental role in introducing objects and technologies of Eastern origin to Western Europe.<sup>2</sup>

The traditional historical-archaeological model has always asserted the eastern origin (possibly Chino-Korean) of the stirrup. It is believed that they were imported into Europe through the Avars between the last thirty years of the sixth and the beginning of the seventh century. This conclusion is based on scanty but highly significant set of archaeological data. Thus, in the Avar necropolis of Szentendre (Hungary), stirrups and coins of Emperors Justinian (518-527) and Phocas (602-610) were found buried together. However, the dating of the stirrups deposited in Avar graves between the second half of the sixth and the beginning of the seventh century has been already challenged by D. Csallány. L. White, on the other hand, emphasized the significance of the Byzantine milieu in introducing the stirrup to Europe. This idea was again taken up and scrutinized by Cs. Bálint. Through a sound revision of archaeological evidence he demonstrated that there are not enough well-dated finds to identify an Inner Asian route by which the stirrup was introduced to Europe via the Avars. Bálint's main contribution was to

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<sup>1</sup> I. Bona, "Gli Avari. Un popolo dell'Oriente nell'Europa altomedievale," in *Gli Avari. Un popolo d'Europa*, Tavaganacco (Ud), 1995, 18, 29.

<sup>2</sup> I. Bóna, "Neue Nachbarn im Osten. Die Awaren," in H. Dannaheimer and H. Dopsch eds., *Die Bajuwaren. Von Severin zu Tassilo 488-788*. Munich-Salzburg, 1988, 108.

deconstruct what had become an unchallenged paradigm, making it clear that the origin of the stirrup was still not a settled issue.<sup>3</sup> However, the Byzantine hypothesis it is not conclusive as well. In fact, if the Byzantine culture had such a determining impact on neighboring societies (including the Germanic and nomadic ones), one would expect to find stirrups in graves of horsemen (or containing horse fittings) whose grave-goods were heavily influenced by Byzantine fashion and imports. Yet, this is not the case as with, for example, two Lombard Italian graves: the burial of the knight of Castel Trosino and grave No. 5 of Nocera Umbra, both contain grave goods (belts and saddle decorations) of Byzantine, if not precisely of Constantinopolitan provenance; both tombs (dated the first in the late sixth or early seventh century and the other around the year 600) lack stirrups. Moreover, all the earliest finds of stirrups are characterized by extremely complicated/mixed archaeological contexts that do not allow easy identification and differentiation between different cultural influences.<sup>4</sup>

<sup>3</sup> J. Hampel, *Alterthümer des frühen Mittelalters*, vol. 1, Braunschweig, 1905, 217, 223; I Kovrig, "Contribution au probleme de l'occupation de la Hongrie par les Avars," *Acta Archeologica Academiae Scientiarum Hungaricae* 6 (1955), 175 mentioning graves 121 and 173 from the Avar cemetery of Jutas; and Ead., "Deux tombes avars de Törökbálint," *Acta Archeologica Academiae Scientiarum Hungaricae* 9 (1957), 131-33 for an early seventh century Avar grave with stirrups; more recently, among others see, E. Garam, "Sepolture di cavalli," in *Gli Avari. Un popolo d'Europa*, 146; D. Csallány, *Archäologische Denkmäler der Awarenzeit in Mitteleuropa: Schriftum und Fundorte*. Budapest 1956, 77-220, 240 and Idem, "Grabfunde des Frühawarenzeit," *Folia Archaeologica* 1 (1939), 171; L. White, *Medieval technology and social change*, Oxford 1964, 14-28; Cs. Bálint, "Byzantinisches zur Herkunftsfrage des vielteigen Gürtels," in Cs. Bálint ed., *Kontakte zwischen Iran, Byzanz und der Steppe im 6.-7. Jahrhundert*, *Varia Archaeologica Hungarica* 10 (2000), 99, 101-104, 120-21, 136-38 and notes 117-127; Idem, "Zur Geschichte und Archäologie der osteuropäischen Reiterhirten im Frühmittelalter," in *Reitervölker aus dem Osten. Hunnen + Awaren*. Bad Vöslau 1996, 202-04; Idem, "Über die Datierung der osteuropäischen Steppenfunde des frühen Mittelalters (Schwierigkeiten und Möglichkeiten)," *Mittlungen des archäologische Insitut der Ungarische Akadamie des Wissenschaften* 14 (1985), 137-47; Id., *Die Archäologie der Steppe. Steppenvölker zwischen Wolga und Donau von 6. bis 9. Jahrhunderts*. Vienna 1989; A. D. Bivar, "The strirrup and its origin," *Oriental Art* n.s. 2 (1955), 61-65; A. K. Ambroz, "Stremena i sedla rannego srednevekovja kak khronologicheskij pokazatel' (IV-VIIIvv.)" [Early medieval stirrups and Saddles as chronological indicators, AD fourth-eighth centuries] *Sovjetskaja Arkeologija* 4 (1973), 81-98 and I. L. Kyzlassov, "O proiskhozhdenii stremjan" [On the origin of Stirrup] *Sovjetskaja Arkeologija* 4 (1973), 25-36; M. A. Littauer, "Early stirrups," *Antiquity* 55 (1981), 99-105; J. Werner, "Nomadischen Gürtel bei Persern, Byzantynern und Langobarden," in *Atti del Convegno Internazionale: La Civiltà dei Longobardi in Europa*, 117; W. Pohl, *Die Awaren. Ein Steppenvolk in Mitteleuropa*. Munich 1988, 311-12; I. Bóna, "Gli Avari," 21.

<sup>4</sup> L. Paroli, "The langobardic finds and the archaeology of central Italy," in K. Reynold Brown, D. Kidd and C.T. Little eds., *From Attila to Charlemagne*, New York 2000, 140-152; F. Vallet, "Une tombe de rich cavalier lombard découvert a Castel Trosino," in F. Vallet and M. Kazanski eds., *La noblesse romaine et les chefs barbares du 3e au 7e siècle*, Saint-Germain-en-Laye 1995, 335-49; C. Rupp, "La necropoli longobarda di Nocera

Written pieces of evidence do not help much either. Those are all of Byzantine origin. First of all, they do not allow us to narrow down the time-frame proposed by archeology, i.e. 570/600. Thus, Procopius in his *History of Wars* mentions the new Germanic fashions in armor, as well as military strategy, that penetrated the Roman army, but does not mention the stirrup. The *Strategikon* attributed to Emperor Maurice is the first source which clearly mentions the stirrup and the context leaves the impression that the innovation was an Avar import. Based on the available data, it is still difficult to draw any unanimous conclusion on the origin of the stirrup in Europe. Both theories, proposing the Avar or the Byzantine provenance, heavily rely on indirect proofs and inferences. Most likely, as suggested by B. Genito, the 'invention' of the stirrup in Europe must be considered as the result of a long process of changes in cavalry and warfare, which started in the fourth-fifth centuries and to which, in addition to the Avars, various peoples and cultures, such as Byzantines and Arabs, may have also contributed.<sup>5</sup>

### *Stirrups in Italy*

Stirrups were discovered in the following archaeological contexts in Italy.

1. The necropolis of Borgomasino (Piedmont), a few kilometers away from the early medieval graves of the S. Germano cemetery, reserved for the Lombard aristocracy. The site probably contained more than 100 tombs with rich grave goods -- now, unfortunately, almost completely lost. Here burials of horses to be found along with horse equipment, such as bridles and stirrups. Possibly, some graves contained human and horse bones, as well as iron stirrups jointly. However, the damage or loss of grave goods does not allow precise archaeological reconstructions. Based on the objects found in the cemetery (pottery and coins), some graves may well be attributed to an early phase, pertaining to the first immigrating Lombard generation, while other parts of the necropolis can date from the end of the sixth to the first half of the seventh century.<sup>6</sup>
2. Some 'sporadic' finds in Friuli, that is to say, stray objects are not found in exact funerary or settlement contexts. There is a series of iron stirrups found during excavations for the restoration of the Palazzo del Pretorio in Cividale.

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*Umbra*," (loc. Il Portone): l'analisi archeologica, in L. Paroli ed, *Umbria Longobarda*, Roma 1997, 36 and *Ead.* "Catalogo," in L. Paroli ed., *Umbria Longobarda*, 119-26.

<sup>5</sup> B. Genito, "Sepolture con cavallo da Vicenne (CB): un rituale nomadico di origine centroasiatica," in S. Gelichi ed., *I Congresso Nazionale di Archeologia Medievale. Auditorium del Centro Studi della Cassa di Risparmio di Pisa (Pisa, 29-31 maggio 1997)*, Florence 1997, 287.

<sup>6</sup> E. Ferrero, "Borgomasino. Sepolcreto barbarico scoperto nell'abitato," *Notizie degli Scavi di Antichità* (1893): 189; G. Berattino, "I reperti della necropoli a Reihengräber di Borgomasino," *Bollettino di storia e arte canavesana* 7 (1981): 87, 88, 91; P. B. Micheletto-L. Pejrani Baricco, "Archeologia funeraria ed insediativa in Piemonte tra Ve VII secolo", in L. Paroli, ed. *L'Italia centro-settentrionale in età longobarda*, Florence 1997, 307; on the pottery types belonging to the Pannonic phase, see O. Von Hessen, "Tecniche di lavorazione," in G. C. Menis ed., *I Longobardi*, Milan 1990, 209.

These can be considered as direct evidence of Avar raids in Italy at the beginning of the seventh century. These are circular stirrups with oblong eyes, a type dated to the early Avar period. Then, there are graves with horse burials found at Illegio, Visnale dello Iudrio and Cividale which are highly significant. In Cividale stirrups were found in a grave south of the Church of S. Pantaleone. In some of my previous works on this particular subject, I also added Grave n. 43 of the necropolis of S. Mauro among the graves containing stirrups. However, I have mistaken and was misled by my wrong interpretation of a drawing of this grave, which presented a picture of a roundish object that was apparently a stirrup. The grave, however, even without stirrups, still maintains its great importance since it is one of the first burial in Italy presenting clear oriental character (burial of the horse plus horseman), even if the grave goods, such as a shield's umbo, a long sword, a sax, spear heads and bows, are more reminiscent of a general Eastern Merovingian cultural milieu, which in turn shows traces of Roman-Byzantine borrowings. Actually, the points of the bows are typical for the Late Roman *castra* situated along the Friulian *limes*. At the same time, the fittings of the horse bit are comparable to those found in the Alamannic territory, e.g. those from Tomb n. 9 of *Niederstotzingen*. This is an evidence for a direct and very early contact with Southern Alamannic territories. Other important aspects of Grave n. 43 are the presence of iron goods, i.e. a graver and a chisel with an incomplete tip, as well as a Late Antique bronze coin (not identified) and a quadrangular Byzantine weight. Taking into consideration all of these goods together in one grave, one may propose that this was the grave of someone involved in trade and/or an artisan. Moreover, the date of the grave, i.e. the last third of the sixth century means that it belonged to the first generation of migrating Lombards. This grave attests that the Lombard migration in Italy implied both the penetration of Lombard origin tradesmen/artisans and the introduction of precise and 'innovative' burial rites.<sup>7</sup>

3. Two different iron stirrups with *agemina* decorations have been found in Grave no. 86/2 of the early medieval necropolis of La Selvicciola, near Ischia di Castro (Latium, Viterbo County) dated to the middle of the seventh century. The stirrups are similar to such objects found in Hungary. There are traces of at least 100 or more graves, but these have been damaged by agricultural work, ancient robbery and the reuse of the necropolis after a cultic building (a one-nave church) was constructed on the site. The oldest objects from the necropolis are dated to the end of the sixth and the beginning of the seventh century. Besides the *agemina* decoration of the above-mentioned stirrups, other

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<sup>7</sup> I. Ahumada Silva, "Testimonianze archeologiche avare a Cividale," *Forum Julii* 14 (1990), 63-67; I. Ahumada Silva, "Necropoli longobarde a Cividale ed in Friuli," in *Paolo Diacono ed il Friuli alto medievale*, 339, 355-56; P. Lopreato, "La necropoli di S. Mauro-Cividale," in E. Arslan and M. Buora eds., *L'oro degli Avari*, Milan 2000, 196; I. Ahumada Silva, "Cividale del Friuli. Necropoli di S. Mauro. Tomba 43 di cavallo e cavaliere," in E. Arslan and M. Buora eds., *L'oro degli Avari*, 198-205.

objects that can help us date the Grave no. 86/2 and understand its cultural belonging are a belt buckle with *agemina* decoration, a projectile point and five other elements. The decoration of the belt is similar to another one found in Grave no. 86/11. These decorated objects are comparable to finds from Alamannic-Bavarian territories of the second half of the seventh century. Stylistic correspondences have been confirmed also by X ray analysis on stirrups n. 8/3. The analysis revealed the presence of *agemina* decorations to be placed in the same chronological and productive space as those of belts from graves 86/11 and 86/2. They all point to the middle of the seventh century and the Alamannic-Bavarian territories.<sup>8</sup>

4. A couple of cast bronze stirrups were discovered in Grave n. 41 of the necropolis of Castel Trosino (Marche, County of Ascoli Piceno). The dimensions of this cast bronze stirrups, certainly not suitable for men, demand a special investigation. The closest item from the Italian context is a bronze stirrup from Grave n. 33 of the necropolis of Vicenne. Both finds can be dated to the mid-seventh century. But material outside of Italy, especially Central-Eastern Europe, provides better paragons of comparison. For example, stirrup-like artifacts from the Byzantine settlement of Caričin Grad (Serbia) and Grave no. 1 of the early Avar necropolis of Szegvár-Oromdülő (Hungary) are similar. The couple of stirrup-like objects from Caričin Grad are made of iron, possibly through smithing of a quadrangular iron bar. They do not really resemble the stirrups described in the *Strategikon*. Moreover, the footrest seems far too short and thin to be able to support a mounted male soldier. In Grave no. 1 of the Szegvár-Oromdülő necropolis, a horse was buried together with a human, whose skeleton was attributed to a female. The small stirrup-like artifact from bone came to light together with a little golden cross which could possibly be part of the horse fittings. This bone artifact is only 7 cm long and 4 cm high and it does not appear to be able to sustain a mounting adult male in this case as well, thus confirming the attribution of the grave to a female. There are other rich goods from this grave. These discoveries prove that between the end of the sixth and the beginning of the seventh centuries different types of footrests for mounting horses existed and not all of them corresponded to the description of the stirrup found in the *Strategikon*. Nor did they fit the typology of stirrups found in Avar and Germanic necropolises of Europe. While the latter

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<sup>8</sup> M. Incitti, "La necropoli altomedievale della Selvicciola ad Ischia di Castro (VT) ed il territorio castrense in età longobarda," in L. Paroli ed., *L'Italia centro-settentrionale*, 225-33; *Idem*, "La necropoli longobarda della Selvicciola," in E. Herring, R. Whitehouse, J. Wilkins eds., *Papers of the Fourth Conference of Italian Archaeology*, 4, London 1992, 213. The Hungarian items are in N. Fettich, *Das awarenzeitliche Gräberfeld von Pilismarót-Basaharc*, Budapest 1965, 20, pic. 25, nn. 9-10; A. Salamon and I. Erdely, *Das völkerwanderungszeitliche Gräberfeld von Környe*, Budapest 1971, 82 pl. 4, nn. 1-2 and 4-5; 83, pl. 5, nn. 32-33; 84, pl. 6, n. 5; 86, pl. 8, nn. 9-10 and 25-26; 88, pl. 10, n. 22; 93, pl. 15, nn. 20-22; 96, pl. 18, nn. 35-36; 98, pl. 20, nn. 34-35; 100, pl. 22, nn. 12-13; 101, pl. 23, nn. 17, 37, 41; 106, pl. 28, nn. 1-4, 6-7; 107, pl. 29, nn. 3-5; see also, I. Bóna, "Neue Nachbarn im Osten," 113.

evidence pertains to stirrups used mainly by men for military purposes, the objects from Castel Trosino, Caričin Grad and Szegvár-Oromdülő would better fit for supporting feet of women while riding, given their shape and dimensions. This conclusion can lead to a different dating of Grave no. 41 from Castel Trosino, ascribing it to an earlier phase of the necropolis.<sup>9</sup>

5. Several iron and bronze stirrups have been found and at least 10 graves with riders and horses together at the necropolis of Vicenne (Molise, Campobasso County). They are dated to the second half of the seventh century. The cemetery is organised of various groups of tombs around several nuclei. This seems to indicate a nomadic settlement. Usually the rider occupies the southern side of the grave while the horse lies opposite to him with the mouth of the animal turned towards his lord. However, it is difficult to reconstruct any uniformity in the mode of depositing the horse and the horsemen based on archaeological evidence alone.<sup>10</sup>

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<sup>9</sup> L. Paroli, "La necropoli di Castel Trosino: un riesame critico," in L. Paroli ed., *La necropoli longobarda di Castel Trosino. Bizantini e Longobardi nelle Marche*, Milano 1995, 206, 301; G. Lőrinczy, "Vorläufiger Bericht über die Freilegung des Gräberfeldes aus dem 6.-7. Jahrhundert in Szegvár-Oromdülő," *Communications Archaeologicae Hungariae* (1992), 81-124, in particular on tomb 1 see 81-90, 103, 105-09, 110; on the iron stirrups like artifacts from *Caričin Grad* in Serbia see, J. Werner, "Ein byzantinischer Steigbügel aus Caričin Grad," in N. Duval and V. Popovic eds., *Caričin Grad. I, Les basiliques B et J de Caričin Grad*, Rome 1984, 147-48, 150, 153.

<sup>10</sup> V. Ceglia and B. Genito, "La necropoli altomedievale di Vicenne a Campochiaro," in S. Capini and A. Di Niro eds., *Samnium. Archeologia del Molise*, Rome 1991, 329-34 and, in the catalogue of unearthed materials, 354, 358; V. Ceglia, "Campochiaro (CB) località Vicenne. La Necropoli altomedievale," *Bollettino di Archeologia* 5-6 (1990): 213-17; B. Genito, "Archaeology of the early medieval nomads in Italy: the horse-burials in Molise (seventh century) south-central Italy," in Cs. Bálint ed., *Kontakte zwischen Iran, Byzanz und der Steppe*, 229-47; Id., "Sepulture con cavallo da Vicenne (CB)," 286: "Alcuni tratti culturali, in qualche modo riconducibili all'Asia nomadica, sono stati già in passato identificati in Italia centro-settentrionale e meridionale; ma nonostante ciò, molto poco delle relazioni tra la penisola e quel grande movimento migratorio di cui gli antichi nomadi d'Asia sono parte integrante, è stato, mai, archeologicamente messo in evidenza prima della scoperta della necropoli di Vicenne (Campochiaro, Molise). Questa necropoli, infatti rappresenta un *unicum* culturale, ad un tempo "asiatico" e "nomadico" caratterizzato dalla presenza di numerose tombe con cavallo che rimandano ad analoghe forme di sepolture rinvenute proprio tra i popoli nomadi delle steppe Eurasiatiche ... Il seppellimento contemporaneo, nella stessa tomba di un uomo e di un cavallo costituisce un esempio di rituale funerario con una lunga e complessa tradizione storica alle spalle che risale alla cultura dei cavalieri nomadi delle steppe Eurasiatiche. Questo tipo di seppellimento, per la prima volta documentato in Europa meridionale, ma generalmente rinvenuto in Asia centrale e in Europa centro-orientale, costituisce l'aspetto più significativo della necropoli di Vicenne e, all'interno della documentazione archeologica europea esso rappresenta davvero una significativa eccezione ... D'altra parte sulla base delle analisi archeologiche e archeo-zoologiche [S. Bökönyi, "Analisi archeozoologica dello scheletro del cavallo nella necropoli di Vicenne," *Conoscenze* 4 (1988): 69-76 and Id., "Two more horse graves from Vicenne," in *Samnium*,

342-43], queste tombe costituiscono senza alcun dubbio seppellimenti contestuali di un uomo e del suo cavallo, unitari nel tempo e nello spazio; ciò va particolarmente enfatizzato considerando l'estrema varietà tipologica delle numerose fosse con cavalli o parti di essi (con o senza corredo), rinvenute in Europa occidentale dalla Scandinavia alla Germania e databili dall'epoca Merovingia a quell'Ottoniana (V-XI secolo A. D.) [M. Müller Wille, "Pferdegrab und Pferdeopfer im frühen Mittelalter," *Berichten van de Rijksdiens voor het Oudheidkundig Bodenmonderzoek* (1970-71), 119-248; J. Oexle, "Merowingerzeitlichen Pferdebestattungen oder Beigaben?," *Frühmittelalterliche Studien. Jahrbuch des Instituts für Frühmittelalterforschung der Universität Münster* 18 (1981), 122-71; ... „ and 287: "Il fatto che queste staffe di tipologia avarica siano state rinvenute in un contesto archeologico caratterizzato da molti oggetti di corredo di carattere "germanico" piuttosto che costituire un'anomalia rappresentano la conferma piena del fatto che tali oggetti, completamente sconosciuti nel mondo classico sono arrivati in Occidente proprio attraverso il tramite di popoli "diversi" che vivevano in un contesto multi-culturale e multi-etnico." and finally 288: "L'area più occidentale nelle quali le tombe con cavallo sono state rinvenute sono l'Ungheria (Cs. Bálint, "Les tombes a ensevelissement de cheval chez les Hongrois aux IXe-XIe siècles," *Archivum Eurasiae Medii Aevi* 2 (1982), 5-32.), l'ex Cecoslovacchia (A. Točík, *Slawisch-awarisches Gräberfeld in Stúrovo*, Bratislava 1968) e l'ex Jugoslavia dove contesti archeologici con un forte carattere "asiatico" sono stati attribuiti agli Slavi, gli Avari o gli Ungheresi. Dall'Ungheria si possono citare gli esempi di Szekszárd (Gy. Rosner, "A Szekszárd-Bogyiszlói úti avar temető ló és lovas temetkezései," [Burials of horses and horsemen in the Avar necropolis of Szekszárd at Bogyiszló street] *Szekszárdi Béri Balogh Ádám Múzeum Évkönyve* 6-7 (1975-76), 103), Ivancsa [I. Bóna, "Avar lovassir Iváncsáról," [The Avar horseman burial of Iváncsa] *Archaeologiai Értesítő* 97 (1970): 243-63, fig. 1]; dall'Ucraina, vicino alla regione di Nikolaev, quello di Portovoe [A. I. Ajbabin, "Pogrebenie hazarskogo voina," [The grave of Khazar warrior] *Sovjetskaja Arkheologija* 3 (1985): fig. 9] e altri dall'Asia Centrale, dall'Oasi di Tuva [B.B. Obcinnokova, "Pogrebenie drevnetjurskogo voina v central'noj Tuve," [The Grave of an ancient Turkic warrior in central Tuva] *Sovjetskaja Arkheologija*, 3 (1982), Fig. 1; R. Kenk, "Früh- und hochmittelalterliche Gräber von Kudyrge im Altai, Frühmittelalterliche Gräber aus West-Tuva," in *Materialen zur allgemeinen und vergleichenden Archäologie*, Munich: 1982, Fig. 9, 11, 14, 19, 20, 31, 41, 43] e dall'Altai superiore [Ivi, Fig. 14, 15, 17, 18, 19, 20, 22, 23]. Con questi confronti non si intende, qui, però affermare l'esistenza di una diretta continuità tra le tombe con cavallo dell'Europa dell'Est e l'Asia Centrale da un lato e quelle dell'Italia meridionale dall'altro, né di stabilire precise correlazioni etniche tra gli inumati e i relativi resti archeologici così lontani tra loro. Queste ipotesi di confronto possono per il momento, solo fornire l'evidenza di connessioni tipologiche, strutturali di un rituale con al centro il sacrificio del cavallo che non appartiene al mondo germanico, sebbene un culto di quell'animale è comunque documentato anche tra quelli [C. Balint, "Les tombes a ensevelissement de cheval chez les Hongrois aux IXe-XIe siècles," *Archivum Eurasiae Medii Aevi* 2 (1982), 5-32]. Ritrovare un rituale funerario di tipo centro-asiatico in un contesto germanico, come certamente è quello di Vicenne, è cosa particolarmente significativa, ... Su questa base credo che i tre livelli interpretativi proposti qualche tempo fa per l'analisi dei resti della necropoli di Vicenne, l'asiatico, il germanico ed il locale trova la sua più piena conferma: un contesto multiculturale e multi-etnico non può che essere analizzato e interpretato se non con criteri interpretativi a più livelli." On the variety of horse burials typology see, E. Garam, "Sepulture di cavalli," 144: "la forma più diffusa di sepoltura

6. Other interesting finds come from the locality of Casino Vezzani-Vassarella near Crecchio (Abruzzo, Province of Chieti). These include several weapons and iron horse equipment, as well as four iron stirrups. The goods have been attributed to a Byzantine troop in charge of defending the border with the Lombard Kingdom, i.e. until 580. This attribution is highly questionable on several grounds. First, it is difficult to identify a specific pottery type as a marker of the Byzantine presence in the area. Moreover, the highly composite character of finds from Crecchio does not allow any precise ethnic/cultural and/or chronological attribution. The chronology and typology of the stirrups themselves, together with that of some other artifacts (weapons and iron tools) point to a situation rather far from a 'pure' Byzantine context. At the same time, the objects from Crecchio closely resemble finds from Vicenne with its composite cultural structure mentioned above. It seems more plausible that the artifacts from Crecchio date to the second half of the seventh century.<sup>11</sup>

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equestre di epoca avara era quella che poneva il cavallo presso il suo proprietario. Il cavallo poteva giacere nella stessa fossa dell'uomo, alla sua destra oppure alla sinistra, a croce davanti ai suoi piedi, oppure coricato longitudinalmente, con lo stesso orientamento dell'uomo oppure con orientamento opposto. Talvolta veniva scavata una fossa distinta per il cavallo nei pressi della tomba dell'uomo. I cavalli con poche eccezioni venivano sepolti completamente bardati;" and for a wide presentation of examples see of I. Kovrig, "Contribution," 164-74.

- <sup>11</sup> A. R. Staffa, "La persistenza di logiche tardoantiche nella difesa dell'Abruzzo dai Longobardi. Reperti inedito da *Castrum Truentinum* e Crecchio," in M. Buora ed., *'Miles Romanus' dal Po al Danubio nel Tardoantico*, Pordenone 2002, 251-72; On this question see, A. Melucco Vaccaro, *I Longobardi*, 150-52; J. Werner, "Italienisches und koptisches Bronzegeschirr des 6. und 7. Jahrhundert nordwärts der Alpen," in *Memnosymon Theodor Wiegand*. Munich 1938, 78. V. La Salvia, "Aspetti dell'economia dell'Italia alto medievale. Artigianato e Commercio fra Longobardi e Bizantini, in O. Merisalo and P. Pajta eds., *Frontiers in the Middle Ages*, Louvain la neuve, 2006, 348-396, *passim*; A. M. Giuntella et alii, "Recenti indagini nella catacomba di Castelvecchio Subequo (Aq)," *Rivista di Archeologia Cristiana* 2.67 (1991) 249-321, especially 301-06; A. M. Giuntella, "Il ducato di Spoleto: persistenze e trasformazioni nell'assetto territoriale (Abruzzo e Sabina)," in *I longobardi dei Ducati di Spoleto e Benevento*, 796-97; On the changes occurring in stirrup typology in the late Early Avar period see, E. Garam, "Sepolture di cavalli," 146: "La forma delle staffe nel bacino dei Carpazi cambiò e dalla fine del VII secolo quando l'occhio delle staffe fu annodato e l'appoggio dritto (che alla fine dell'epoca avarica divenne più largo) rafforzato con coste." See as well P. Tomka, "Il Costume," in *Gli Avari. Un popolo d'Europa*, 84-85 where it is emphasized that the Euroasian nomads always used felt riding boots with smooth soles and that its invention in Europe can be ascribed to the early Avar period since this type of boots would only fit into the roundish rod stirrups. Moreover, he stressed that only after the coming of other nomadic people of Turkic/Mongol origin, around the year AD 670, and the consequent diffusion of stirrups with a rigid rod was it then possible to mount with hard leather sole boots as well. The *harpago* or *lupus* is known from grave 119 at *Castel Troisino* while another one came to light in *Pisa*, see G. C. Meris ed., *I Longobardi*, 188; G. Ciampoltrini, "La falce del guerriero e altri appunti per la Tuscia fra VI e VII secolo,"



The presence of horse burials, unquestionably a tradition of oriental origin, and of funerary contexts influenced by the Avar tradition within Lombard and Alamannic-Bavarian territories make it clear that significant relationships existed between these areas and the Carpathian Basin. Actually, this connection must have played a central role in shaping early medieval tools in Italy. The Avar migration into Central Europe around the end of the 560s, on the one hand, implied a radical reorganization of the political structure, particularly in the Byzantine provinces of the Balkans. On the other hand, this reorganization did not result in any major or disruptive event as far as the local populace of the Carpathian Basin was concerned. There is strong evidence in the archaeological record of the persistence within early Avar Kaganate, of peoples of both Germanic (western or eastern) and provincial (Roman or local) origin. The example of the Keszthely culture demonstrates this point. Apparently, this very situation lasted until the 80s of the seventh century when the arrival of other nomadic tribes from the East led to a crisis in Avar power in the Carpathian Basin.<sup>12</sup>

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*Archeologia Medievale* 20 (1993), 596-97; C. Giostra, "Catalogo," in Pejrani Baricco ed., *Presenze longobarde a Collegno nell'Alto medioevo*, Turin 2007, 97-109, 111-15, 127-32. For the objects attributed to an earlier phase see, G. C. Menis ed., *I Longobardi*, 46, 188, 426, 444; C. Rupp, "Catalogo," 118; L. Paroli, "La Necropoli di Castel Trosino: un riesame critico", 262.

- <sup>12</sup> On the oriental origin of the fashion of horse burials and of the importance of the horse as a status symbol see, B. Genito, "Materiali e problemi," *Conoscenze* 4 (1988), 56; E. Garam, "Sepulture di cavalli," 143: "Nel primo millennio d.C. cominciò a diffondersi nelle steppe asiatiche l'uso di seppellire con i guerrieri i loro cavalli bardati. Prima dell'arrivo degli Avari tale usanza era un'eccezione nel bacino dei Carpazi;" see also R. Brulet, "La sépulture du roi Childéric à Turnoi et le site funéraire," in F. Vallet and M. Kazanski eds., *La noblesse romaine et les chefs barbares du III au VII siècle*, 314: the distribution map of horse burials in the Merovingian period shows that this mode of interment remained exceptional between the Rhine and Seine, and only began to evolve from the AD 5th century onwards in Thuringia and even later along the Elbe, Rhine and Danube rivers; see as well, M. Müller-Wille, "Pferdgrab und Pferdopfer," im frühen Mittelalter, *Berichten van de Rijkdiens voor het Oudheidkundig Bodenmoderzoek* (1970-71), 122-72; S. Piggott, *Wagon, Chariot and Carriage*. London 1992, 108-109 and especially 112: "When we turn to the horse as a prestige steed, the Scythian world of the fifth century BC on the Central Asian steppe shows a rather different pattern, illustrated by princely *Pazyryk* burials in the Altai. Here we are in a horse-centred nomadic or semi-nomadic world ... where horses indicated status in herds rather than as individuals." B. Genito, "Sepulture con cavallo da Vicenne (CB)," 286-87: "Storicamente l'uso di seppellire cavalli è attestato da Erodoto (IV, 72) per l'epoca scita (V-IV secolo a.C.) e da evidenze archeologiche per l'età del Bronzo e del Ferro, nel Vicino Oriente, in Cina (nel periodo tardo Shang, XIII-XI secolo a.C.) ed in Asia Centrale con la significativa variante della presenza di carri. Per l'epoca medievale il rituale è testimoniato da numerosi autori e da una discreta documentazione archeologica con la deposizione contemporanea di uomo ed animale, variante assente nell'età del ferro. Una delle principali fonti relative a tale rituale si trova nelle note di viaggio di Ibn Fadlan, ambasciatore del califfo Abbaside, Muqtadir, inviato nel IX-X secolo presso il re dei Bulgari del Volga. L'autore nelle sue note ci ha fornito una grande quantità di informazioni stori-

che, geografiche ed etnografiche, inoltre, sulla popolazione dei Khazari, tra le quali anche la descrizione della morte, del seppellimento di un uomo e della pratica rituale di sacrificare contestualmente un cavallo. In tale rituale è evidente che l'uccisione di un cavallo e la sua collocazione in una tomba, consente, all'uomo deceduto di salire simbolicamente al Paradiso. Il rituale descritto da Ibn Fadlan, documentato anche presso i Mongoli ci fornisce l'evidenza anche di un pasto rituale prima che il cavallo sia imbalsamato e ci conferma quanto tali sacrifici fossero diffusi nel mondo dell'est-europeo dell'epoca. Il seppellimento di cavalli insieme agli uomini nelle tombe di periodo alto-medioevale è archeologicamente attestato nel V secolo nella Russia Meridionale e nel Caucaso; gli Avari nel VI-VII secolo lo diffondono in Occidente nelle aree Danubiane e della Tisza, e gli Ungheresi, nel IX/X secolo lo adottano di nuovo nel bacino dei Carpazi. Indipendentemente da ogni attribuzione etnica di quel rituale per cui sono stati di volta in volta proposti popoli come i Saragouri, gli Ouguri, gli Onoguri, i Bulgari, i Finno-ugri, gli Unni, e gli Avari, esso fu, molto probabilmente, introdotto contemporaneamente da diversi popoli in aree diverse. Sebbene la questione appare molto complicata la più gran parte degli studiosi attribuisce l'uso di seppellire i cavalli al ramo occidentale dei su citati popoli di origine turca, e la probabile area originale del rituale alla Siberia di Sud-ovest. I seppellimenti più tardi con cavallo del X-XI secolo nella Russia meridionale e a Sarkel la famosa capitale dello Stato Kazaro sono, invece, attribuibili a nuove ondate di popoli turchi, come i Pecheneghi. Generalmente considerati relativi a credenze religiose, i seppellimenti con cavallo del medio-evo appartengono culturalmente in toto al mondo nomadico eurasiatico, e, sono chiare espressioni della particolare importanza del cavallo nel contesto socio-economico del nomadismo pastorale equestre che col tempo ha determinato lo sviluppo di particolari rituali connessi con il suo sacrificio. Questo rituale richiedeva che il cavaliere portasse con se dopo la morte il cavallo e la sua cavalcatura ed è, così, strettamente riferibile al valore sacro del suo spirito o della forza vitale, capace di sopravvivere attraverso le ossa (cranio e quattro zampe) e la pelle dell'animale, generalmente lasciate intatte nelle tombe. Considerando l'alto costo di un cavallo, sempre maggiore di un bovino, l'uso di seppellire un cavallo completo potrebbe essere stato un privilegio dei livelli più alti della società, là dove la deposizione della sola bardatura potrebbe avere caratterizzato i livelli bassi. On the very subject see as well, A. Azzaroli, *Il cavallo nella Storia antica*. Milan 1975; M. Canard, "La relation du voyage d'Ibn Fadlan chez les Bulgares de la Volga," *Annales de l'Institut d'études Orientales* 16 (1958), 200b, 75, 76, and note n. 136; L. Chi, *Anyang*. Seattle 1977; K. C. Chang, *Shang Civilisation*. New-Haven 1980; Cs. Bálint, "Les tombes a ensevelissement de cheval chez les Hongrois aux IXe-XIe siècles," *Archivum Eurasiae Medii Aevi* 2 (1982), 19ff., 25; K. F. Smirnov, "Arheologicheskie staf' v Trudah Saratovskogo oblastonogo Muzeja kraevedenija," [Archaeological papers in the works of Saratov regional museum] *Sovjetskaja Arkeologija* 4 (1962), 270-73; I. P. Zaseckaja, "Osobennosti pogrebal'nogo obrjada gunnskoj epohi na territorii stepej nizhnego povolzh'ja i severnogo prichernomr'ja," [The specific grave-goods of Hunnic period on the Steppes of the lower Volga basin and northern Black Sea area] *Arheologicheskij Sbornik* 13 (1971), 64-65, 69; B. Genito, "Materiali e problemi," 49. Moreover, *Lamellenpanzer, Spangenfederhelm* and stirrups appear in Lombard graves only after AD 568, therefore precisely from their Italian phase. This moment in their history, represented an occasion to establish new contacts and re-enforce older ones; relative to that see, J. Werner, *Nomadischen Gürtel bei Persern, Byzantinern und Langobarden*, in *Atti del Convegno Internazionale sul tema La Civiltà dei Longobardi in Europa*, Rome, 1974, 119; The long lasting Keszthely cul-

The relationship between the Avar Kaganate and the Eastern Merovingian area remained regular and stable both from a military point of view, often the main one, and commercial exchanges. Therefore, the existence of burials of Western Germanic people and of objects of Eastern Merovingian provenance in Avar territories can be regarded as an indication of connections with Lombard Italy, granted that in the Italian peninsula as well there is plenty of material of Avar and Avar-Byzantine origin.<sup>13</sup> On the other hand, artifacts and burials of Western Germanic origin in Avar lands demonstrate that there existed all-inclusive contacts with the populace in the Alamannic-Bavarian area and contacts were not limited to Lombard Italy alone. Such conclusions are gained from the analysis of

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ture certainly must be connected to the persistence of a *castrum* on the southern shore of Fenékpusztá peninsula on Lake Balaton. The fort flourished between the AD 4th and the middle of the AD seventh centuries. Since it was located close to the frontier of the early Avar Kaganate its population could maintain connections with both the Balkans and northern Italy. At that time, its populace consisted, beside people of provincial origin, of persons of Byzantine origin, possibly prisoners of war captured during Avar raids, Germanic people, beside various craftsmen who would have been attracted there since the strategic and political role of the *castrum* was preserved. From the early 30s of the AD seventh century the situation started changing, especially after the Avar defeat at Constantinople in AD 626 and the subsequent succession war within the Kaganate. Around AD 630, the fort was destroyed and never rebuilt. During this period the Avars finally gained full control of the region and the Christian populace of Keszthely culture remained isolated; concerning this theme see, R. Müller, "La cultura di Keszthely," in *Gli Avari. Un popolo d'Europa*, 165-66 and 167-68. *Idem*, "Die Keszthely-Kultur," in *Reitervölker aus dem Osten*, 265-74; L. Barkóczi, "A sixth century cemetery from Keszthely-Fenékpusztá," *Acta Archeologica Academiae Scientiarum Hungaricae* 20 (1968), 275-311; Gy. László, *Steppenvölker und Germanen. Kunst der Völkerwanderungszeit*. Vienna-Munich 1970, 52-55; F. Daim, "The Avars. Steppe people of Central Europe," *Archaeology* 37.2 (1984), 34-35; W. Menghin, T. Springer and E. Wamers eds., *Germanen, Hunnen und Awaren. Schätze der Völkerwanderungszeit*, Nurnberg 1987, 261; W. Pohl, *Die Awaren*, 55, 89, 92, 308-12; A Kiss, "Germanen im awarenzeitlichen Karpatenbecken," in F. Daim ed., *Awarenforschungen. Studien zur Archäologie der Awaren* 4. Vienna 1992, 36-38; T. Vida, "Merovingische Spathagurte der Awarenzeit," *Communicationes Archaeologicae Hungaricae* (2000), 171-72; P. Stadler, "Das germanisches Substrat: Langobarden, Gepiden und anderen germanische Völkerschaften im frühawarischen Material," in *Reitervölker aus dem Osten*, 281-82; F. Daim, "Archäologie der Awaren," in *Reitervölker aus dem Osten*, 200: "Vor allem in Westungarn spielt die germanische Komponent im awarenzeitlichen Material eine bedeutende Rolle und manche germanische Verzierungsweisen werden dann im awarenzeitlichen Kunsthandwerk übernommen und weiterentwickelt. Sicher spielen hier die besiegten Gepiden und zurückgebliebene Langobarden eine wesentliche Rolle."

<sup>13</sup> S. Szádeczky-Kardoss, "Histoire des Avars et leur heritage en Europe," in S. Csernus and K. Korompay eds., *Les Hongrois et l'Europe: conquete et integration*, Paris-Szeged 1999, 150-151, 153, 155, 157; M. Brozzi, "Avari e Longobardi friulani," in *Gli Avari. Un popolo d'Europa*, 57, 58, 58-59, 60 ff.; I. Bóna, "Gli Avari," 28-29; A. Kollautz, "Awaren, Langobarden und Slaven in Noricum und Istrien," *Karinthia* 1 (1965), 619-45; A. Tagliarferri, "Il Friuli e l'Istria nell'Altomedioevo," *Antichità Altoadriatiche* 2/2 (1972), 273-94.

Grave n. 200 in the Avar necropolis of Mezőfalva (for the *agemina* type belt decorations) and other finds in Transylvania, e.g. the Avar necropolises of Bánd, Veresmart, Nagylak (Nadlac) and Baráthegy (Bratej).<sup>14</sup> Among Lombard burials within Avar territory the following can be considered: graves 16, 216, 350, 356, 390 and 760 of Szekszárd-Bogyiszló and the necropolis of *Zamárdi*. The first burial ground is important because it contained iron stirrups of the very same type as those from Vicenne/Borgomasino. This parallel suggests acquisition *in situ* of this new and fundamental riding tool for those Lombards living in direct contact with the Avars. Moreover, 70% of the early Avar stirrups come from former Lombard *Pannonia*.<sup>15</sup> The necropolis of *Zamárdi* is located on the southern shore of Lake Balaton. It was probably the residence of Avar Khan Bajan's successors although the settlement itself has not yet been identified. The excavations conducted on the site demonstrated that it flourished during the seventh century and ended in crisis to follow. Many of the graves were robbed and it has been calculated that the entire number of the burials would have been 5000. An iron-making site with reduction furnaces was also discovered in the same area. The archaeological evidence from the necropolis testifies the existence of long-distance trade connections with the Alamanno-Bavarian zone, Italy and Byzantine territories. Besides imported Byzantine jewelry, there are many other artifacts, such as belt ornaments, horse bits and fittings from Lombard Italy, Bavaria, Alamannia, the Frankish Kingdom or from the Romanised population of the Alps. The overall situation of the finds' structure and their quality in *Zamárdi*, thus, is a demonstration of the mutual influences between the Avar lands and the nearby territories.<sup>16</sup>

As far as the relationship with Bavaria is concerned, Graves no. 40, 74 and 97 from the Linz-Zizau cemetery, Grave no. 35 from the necropolis of Moss-Burgstall and the burial ground of Budenheim can be mentioned. In the last two necropolises the fashion of horse interments must certainly be considered an oriental import through Avar mediation. The contacts between these two areas greatly intensified during the last 30 years of the seventh century because of the military stability on the frontier. This situation is testified in finds from such Avar necropolises as Záhorska-Bystrica, Sommerein and Zalakomár where belt fittings of Bavarian origin are found together with Avar pottery; in some North Hungarian necropolises, such as Hédervár, Vasasszonyfa, Lukácsháza various long saxes have come to light; and some Lower Austrian cemeteries (at Zwölfaxing, Graves no. 3 and 233) and Münchendorf.<sup>17</sup>

<sup>14</sup> I. Bóna, "Neue Nachbarn," 111-13.

<sup>15</sup> I. Bóna, "Neue Nachbarn," 111; I. Kovrig, "Contribution," 177.

<sup>16</sup> M. Martin, "Zur Interpretation des langobardischen Gräberfeldes von Várpalota, Komitat Veszprém," *Basler Beiträge zur Ur- und Frühgeschichte* (1976), 194-99; On the necropolis of *Zamárdi* see E. Bárdos, "La necropoli di *Zamárdi*," in *Gli Avari. Un popolo d'Europa*, 151, 153, 163; I. Bóna, "Gli Avari," 34; about Szekszárd see G. Rosner, "Das awarenzeitliche Gräberfeld in Szekszárd-Bogyiszlói Straße," *Monumenta Avarorum Archaeologica* 3 (1999), 12, 34, 48, 51, 54-55, 96, 154-56.

<sup>17</sup> I. Bóna, "Neue Nachbarn," 111-114; see also F. Daim, "Die Bayern, die Nachbarn der Awaren westlich der Enns," in *Reitervölker aus dem Osten*, 308-15.

In relation to Avar–Alaman connection, the stirrup imports have been fully investigated by J. Oexle. Moreover, even if the Lombard mediation is emphasized in explaining the diffusion of the stirrups in Alaman regions, the existence of contacts with the region in the upper courses of the Danube are no less significant.<sup>18</sup>

As a comparing area of interest, the archaeological features from the necropolis of Moss-Burgstall in Bavaria and Grave no. 35 in particular are important. It has a quite mixed anthropological composition: northern European types are widely represented among women, but Roman and East European/Mongoloid types are attested as well. The inhumations of Graves no. 35 and 3 represent the latter type. The grave goods of Grave no. 35 yield evidence of typical Germanic weaponry (shield's umbo, long sword, sax) except for the stirrups. Belt decoration, on the other hand, points to an Eastern Merovingian, or more precisely Northern Italian provenance. Yet, Grave no. 35 can be certainly ascribed to a rider of Avar origin who would have been in charge, on behalf of the Bavarian Duke, of controlling the relevant strategic zone around the confluence of the rivers Isar and Danube during the early 30s of the seventh century. This Bavarian burial site displays a number of similarities with the Italian necropolis of Vicenne. In both cemeteries there are common structural features, i.e. horse interments and objects (e.g. stirrups) of clearly Asiatic derivation within a generalized Germanic context. In addition, the presence in Bavaria and Lombard Italy of seventh century necropolises that are quite similar to each other in terms of their 'oriental character' (as shown by horse burials and stirrups) sheds new light on contemporary written sources mentioning the migration and settlement of the 'proto-Bulgarian' peoples in these same areas. Thus, the Bulgarians led by Duke *Alzec/Alcio* and

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<sup>18</sup> J. Oexle, *Studien zu merowingerzeitlichem Pferdegeschirr am Beispiel der Trensen*, in *Germanische Denkmäler der Völkerwanderungszeit*, Serie A, Band 16. Mainz am Rhein 1992, 82, 99, Kirchheim/Ries, Ostalbkreis, n. 80–81, tab. 38, 142–43; Mühlhausen im Täle, Kreis Göppingen, n. 95, tab. 41, p. 147; Mannheim, unpublished, tb 313, n. 93, tav. 41, 146; Pfahlheim, City of Ellwangen, Ostalbkreis, n. 114, tab. 56, 157–166; Rißtissen, Stadt Ehingen, Alb-Donau Kreis, n. 139–140, tab. 73, 167–68; Wilflingen, Kreis Biberach, n. 172, tab. 85, 175–76; Aschheim, Kreis München, n. 176, tab. 86, 177; Au, Gem. Rehling, Kreis Aichach-Friedberg, n. 177, tab. 86, 177–78; Friedberg, Kreis Aichach-Friedberg, n. 190–191, tabs. 92–93, 182; Geltendorf, Kreis Landsberg/Lech, n. 196, tab. 92, 183; Giesing, Stadt München, n. 198, tab. 93, 183; Künzig, Kr. Deggendorf, n. 203, tab. 95, 184; Ottmaning, near Ainring, Kr. Berchtesgadener Land, n. 218, tab. 99, 188; Regensburg, n. 222, tab. 105, 190; Budenheim, Kr. Mainz-Bingen, n. 267, tab. 123, 203; Flomborn, Kr. Alzey-Worms, n. 272, tab. 125, 204; Staubing, Kr. Kelheim, n. 254, 198; Windecken, Stadt Nidderau, Main-Kinzig Kreis, n. 334, tab. 151, 224; Bremen, Gem. Ense, Kr. Soest, n. 380, tab. 176–77, 240. See as well R. Christlein, *Die Alamannen. Archäologie eines lebendigen Volkes*, Stuttgart, 1991, 66–67 on the cultural stream that from Lombard Italy and from Avar Pannonia reached initially Bavaria and only after Alamannia: as a matter of fact, the Alamans settled in the northern part of their territories or in the mountainous regions of Switzerland kept their oldest ethnic style for a longer period; 75 on the change of riders graves style after 650 AD when stirrup is imported; 76: "Auch bei den Steigtügeln wird deutlich, daß sie eher auf italisch-langobardische denn auf awarische Vermittlung hin zu den Alamannen gelangten."

mentioned by Paul the Deacon in *Historia Langobardorum*; by Fredegar in his *Chronica*; by Theophanes in his *Chronographia* and by Nikephoros Patriarch of Constantinople in his *Breviarium*, even if they cannot be directly identified with the people buried in the two necropolises do, in fact, represent the manifold cultural and commercial exchanges between these regions. These relationships, therefore, also imply the movement and subsequent settlement of large parts of populations for military and strategic reasons.<sup>19</sup>

To summarize, the Eastern Merovingian area, that is to say the Lombard kingdom, Alamannia and Bavaria, apparently played a highly relevant role in the importation of artifacts and technologies of oriental origin into Western Europe, totally unrelated to the Graeco-Roman heritage. Far from being a simple periphery of the Merovingian world, this zone played an essential mediation role in exchanges with the East, including territories under Byzantine control, between the end of the sixth and the middle of the seventh centuries. The frequency and profoundness of these commercial, cultural and military connections, also implies migration of entire peoples and family kinship between and among Avars, Lombards, Alamans and Bavarians, creating a strong degree of homogeneity in this area. The dynastic bonds between Lombards and Bavarians are too well known to deserve further explanation here. At the same time, it is important to stress that during the seventh century iron artifacts and jewelry consistently passed through Lombard Italy to Bavaria from whence they continued via the Danube and its southern tributary rivers. It is not by chance that all finds of weights and scales are strictly located all along the courses of the Danube, the Rhine and their tributaries. As far as Lombard-Alaman connections are concerned, the conclusions of Graenert are relevant. According to Graenert, contacts between these two peoples were not solely restricted to military or commercial relations but it also included the creation of family links, as possibly mirrored by the presence of 'Lombard' women in Alaman necropolises on both sides of the Alps. This situation may have been supported by an early Lombard migration, already starting at the end of the sixth century, directly from their Pannonian settlements into the most Eastern parts of Alamannia, such as the Lech valley.<sup>20</sup>

<sup>19</sup> U. Von Freeden, Das Grab, eines awarischen Reiters von Moss-Burgstall, *Bericht der Roemisch-germanischen Kommission* 66 (1985), 7, 8-16, 19-20; Eadem, "Das Frühmittelalterliche Gräberfeld," von Moss-Burgstall, Niederbayern, *Bericht der Roemisch-germanischen Kommission* 68 (1987), 559, 567, 596; in relation to this see H. Ditten, "Protobulgaren und Germanen im 5-7. Jahrhundert," *Bulgarian Historical Review* 3 (1980), 69-73, 75-76; L. Capo ed., *Paolo Diacono. Storia dei Longobardi*, Vicenza 1992, 548-49; N. Christie, Longobard weaponry, and warfare, AD 1-800, *Journal of Roman Military Equipment Studies* 2 (1991), 16-17.

<sup>20</sup> On this paragraph's topic see, F. Moosleiter, "Handwerk und Handel," in H. Danaheimer and H. Dopsch eds., *Die Bajuwaren*, 219; I. Bóna, "Neue Nachbarn," 108; H. Steuer, "Handel und Ferbeziehungen," in *Die Alamannen*, Stuttgart, 1997, 391, 400, 408-10, 410-14; V. Babucke, "Nach Osten bis an den Lech," in *Die Alamannen*, 256; I. Stork, "Friedhof und Dorf, Herrendorf und Adelsgrab," in *Die Alamannen*, 295-99, 301; G. Barni, "Alamanni nel territorio lombardo," *Archivio storico lombardo* n.s. 16 (1938), 137,

But besides connections between related Germanic groups, other important relationships included Eastern cultures whose influence was often mediated by the Avars and Byzantines. The different influences from such Eastern contacts permeated Lombard material culture also due to the transfer and integration of portions of such populations within the larger body of the Lombard society. The presents of Norici, Pannonians, proto-Bulgarians and representatives of diverse Germanic groups in Italy since 568 which is recorded in written sources appears to be confirmed by archaeological evidence. In fact, the appearance of the stirrup in Italy and in general in the Eastern Merovingian area, an object that is absolutely outside of classical heritage of these territories but rather point to an East-Central European influence, must be considered as proof of the above-mentioned peoples' presence and influence in this geographical area.

Last but not least, one should remember that stirrups and other types of armor were produced by Avar craftsmen who were able to utilize rather sophisticated methods of production: a rhomboidal iron bar was flattened by hammering thus giving it typically roundish form at the stanchion level. Evidence of the existence of this specialized craftsmanship among Avars comes from Grave n. 166 in the Jutas necropolis and at iron-making sites in Zamárdi and all over the Somogy

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140, 144-50; G. Graenert, "Langobardinnen in Alamannien. Zur Interpretation mediterranen Sachgutes in südwestdeutschen Frauengräbern," *Germania* 78 (2000), 418, 422-23, 426ss., 431, 432-34; J. Werner, "Fernhandel und Naturalwirtschaft im östlichen Merowingerreich nach archäologischen und numismatischen Zeugnisse," *Bericht des Römisch-germanischen Kommission* 42 (1961), 310 ff.; *Idem*, "Zur Vorbereitung frühgeschichtlicher Metallarbeiten (Werkstatt-Wanderhandwerk-Handel-Familien Verbindung)," *Early Medieval Studies* 1 (1970), 65ff.; H. Schutz, *Tools, weapons and Ornaments I.*, Leiden/Boston/Cologne 2001, 198: "Thus the presence of northern square-based Lombardic fibulas in the Bavarian cemeteries indicates that Lombards may have participated in the tribal genesis of the Bavarians." The homogeneity of many aspects of the eastern Merovingian material culture and the importance of the oriental influences, running along the Danube, is confirmed also by pottery production as noted in O. Von Hessen, "A proposito della produzione di ceramica nel periodo delle migrazioni nell'Europa centrale e meridionale," in *Artigianato e tecnica, sulla società dell'alto medioevo occidentale*. Atti Settimane di Studi del Centro Italiano di Studi sull'Alto Medioevo, 17, vol. 2, Spoleto 1971, 757-58: "Vorrei parlare ora di un terzo prototipo di ceramica dell'epoca merovingia, proveniente dalla Germania meridionale e più precisamente dalle zone bajuvariche ed alemanne. Questo prototipo è particolarmente importante per la ceramica longobarda trovata in Italia ... Si tratta ... di bicchieri e di vasi a forma di otre ... Le forma di questo gruppo di recipienti ... non trovano riscontro nella Germania settentrionale. Questo tipo di vasi non è di provenienza occidentale, bensì di origine orientale. La sua diffusione nella Germania meridionale segue più o meno il corso del Danubio. Questi vasi a forma otre ... sono quasi sempre decorati da stampigliature e sono modellati a mano. I loro parenti più prossimi ... formano il gruppo principale della ceramica longobarda in Italia, con la differenza però che quest'ultima, contrariamente a quella proveniente dagli scavi della Germania meridionale, è modellata al tornio. Ma ambedue i gruppi risultano probabilmente dalle stesse influenze orientali."

County (all in Hungary). The necropolis of Jutas is of special interest since it presents a mixed burial context containing skeletons of both Caucasian and Mongoloid human types from a period between the end of the sixth and the beginning of the seventh centuries. The direct import of this technology of production, besides the objects themselves, into the Eastern Merovingian regions is still difficult to prove because of the scarcity of Italian finds and the lack of archaeometric analysis on these objects. This would be the only way to distinguish regional variations within the same production technology.<sup>21</sup>

The other important necropolis in this respect is, in my opinion, that of Környe. Here, the Polish scholar Piaskowsky conducted several archaeometallurgical analyzes that revealed a general uniformity in the blacksmith manufacturing procedures within the Carpathian Basin and the eastern Merovingian area, a fact also proving the movements of these craftsmen along and among the frontiers between these neighboring regions.<sup>22</sup>

In addition to the archaeological evidence, anthropology (and the resulting bio-archaeological explanation) also stands for a close interaction between Italy and the Carpathian Basin (and the various incoming populace) during the early medieval period and for a consistent migration of alien population. As for Moos-Burgstall, also in the Italian case a mixed anthropological composition is attested with northern European, along with East European/Mongoloid types. Most of the data originate from central-southern Italy. From the necropolis of Vicene/Campochiaro evidence of the sphenoid cranium can be found and the relatively wide flat face of the individual of graves 46 (about 161 cm) resemble typical Central Asian characteristics. In the grave of this man there were found very similar grave-goods and weapons to those of the horsemen of Grave 33, except for a gold ring of this horsemen, which apparently symbolizes the central role of the buried person within the community. The anthropological data from the study of Germanic necropolises of Pannonia, Rugiland and Italy indicate, however, a certain grade of heterogeneity. Kiszely, already, identified in the individuals from the cemeteries of Pannonia and Rugiland at least fifteen frequent typologies and

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<sup>21</sup> I. Kovrig, "Contribution," 164; I. Bóna, "Neue Nachbarn," 109; I. Bóna, "Gli Avari," 25-26, 37; G. Rhé and N. Fettich, "Jutas und Öskü, zwei Gräberfelder aus der Völkerwanderungszeit," *ΣΚΛΘΙΚΑ* 4 (1931), Tab. IV, Fig. 12-20; J. Gömöri, "Nemeskér-type iron smelting workshops from the time of Onogur colonization of Pannonia. Excavations in Zamárdi," in J. Gömöri ed., *Traditions and Innovations in the early Medieval Iron Production*, Sopron/Somogyfajs 2000, 149-59; *Idem*, "Az avar kori és X-XI századi vaskohászat régészeti emlékei Somogy megyében," [*Archaeometallurgical site of Somogy county during Avar and early Arpadian period*], *Somogy Megyei Múzeumok Közleményei* 14 (2000), 163-218.

<sup>22</sup> J. Piaskowsky, "Metallkundliche Untersuchungen an Eisengegenständen aus dem Gräberfeld von Környe" *Acta Archaeologica Academiae Scientiarum Hungaricae* 26 (1974), 117-30, see particularly 120 ff, 123; A. Salamon and A. Cs. Sós, "Pannonia - Fifth to Ninth Centuries," in A. Lengyel and G. T. B. Randan, eds., *The Archaeology of Roman Pannonia*, Budapest 1980, 407-08; A. Salamon and I. Erdély, *Das völkerwanderungszeitliche Gräberfeld von Környe*, Budapest 1971, 55, 57, 66-67.



others derived from interbreeding with other populations, indicating that the Lombard populations showed the same heterogeneity even before their arrival in Italy. Moreover, during the seventh–eighth centuries, the later phase of the Lombard presence in Italy, there had been already a probable crossbreeding between the Lombards and local populations as confirmed by the archaeological data. Therefore, the mixed character observed in the Germanic populations of some European and Italian necropolises (as we have seen for example in Moss-Burgstall) seems to be also present in the necropolis of Vicenne/Campochiaro, with evidence of frequent crossbreeding between local and Central Asian elements. In addition to this, it is worth mentioning also the lesion in the frontal bone of the individual of Grave no. 115 (M, AM), which could refer to a ritual symbolic trepanation, a specific ethnic phenomenon typical of the Steppe peoples. Moreover, six horsemen have been analyzed and on three of them an anomalous lingual wear was found on the anterior maxillary tooth (from Graves no. 16, 66, 109) that does not correspond to that of the mandibular teeth. This feature has been not observed in case of the two young horsemen (Graves no. 155, 141), probably in relation to their age. This type of wear has been described as LSAMAT (Lingual Surface Attrition Maxillary Anterior Teeth) and as the result of progressive attrition of the lingual surface enamel and even dentine over a long period of time through the introduction of an abrasive material between the upper anterior teeth and the tongue. It is interesting to note that this kind of wear is present in only two other males of the necropolis, thus, possibly indicating the use of a particular substance by some horsemen, not available to the rest of the population. This would suggest the presence of particular cultural habits within portion of the population then buried in Vicenne/Campochiaro. As for the anthropological features, all the analyzed samples showed morphometric heterogeneity (also within horsemen and other males), notwithstanding the fact that some individuals present biological characteristics resembling Central Asian typologies. This suggests some crossbreeding between autochthonous, Germanic and Oriental populations, making it difficult, if not impossible, to associate specific cultural elements to a particular ‘racial’ group. The general feature (i.e. archaeological and anthropological data) of this necropolis, however, presents particular habits and behavior, as the anomalous lingual wear and the burial of horses together with men of Oriental origin, that could suggest a restricted social and/or ethnic group. Moreover, the evidence of many traumatic and violent events detected on the bones, for sure related to martial activities, apparently confirms that this group had probably military duties.<sup>23</sup> At Piano di San Giovanni by Canosa, Herdonia and S. Giusto as well, among the people buried within these sites, it was possible to attest the presence of foreign population with morphometric character of the cranium resembling that of present day Mongolic populace and, thus, pertaining to a skeletal series that is typical for the archeology of the people of the Steppe such as the

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<sup>23</sup> M. G. Belcastro and F. Facchini, “Anthropological and Cultural Features of a Skeletal Sample of Horsemen from the Medieval Necropolis of Vicenne-Campochiaro (Molise, Italy),” *Coll. Antropol.* 25:2 (2001), especially 395–396, 398–99.

Huns, Avars, and Bulgars. It is noteworthy that, within the same archaeological contexts, the practice of intentional cranial deformation is also well attested, as it was already for the Germanic burial tradition of Central Europe. Therefore, the finding of this kind of anthropological features in Italy, between fifth–seventh century, is certainly connected to the arrival of people of Central Asiatic origin to Europe. This typology is usually individuated by a short and large cranium (*brachicrania*), with a narrow forehead in relationship with the total width of the cranium (*stenometopia*), and characterized by flat front face (*platopia*), the chinks bones projected towards the outside, within which the front tooth result to be spade like shaped and the wormians bones and the oval windows cannot be seen from the external acoustic *meatus*. Naturally, all these characteristics can be, and in fact usually are, gradually mixed within the population, granted the high rate of mutual interbreeding of human species. From the genetic point of view, it was possible to observe considerable differences between the STR sequences analyzed in the present-day inhabitants of the Apulian region and their medieval ancestors. These results may be justified by the fact that, during the early Middle Ages, there were strong gene flows from the Germanic and Asian peoples (Goths, Lombards, Avars) that may have conditioned the genome of the native populations. In the subsequent centuries, these gene pools may have been diluted, thus strongly altering the genetic status of the Italian population.<sup>24</sup>

### Conclusion

The case of the stirrup indicates that a profound economic and cultural interaction can be observed within the zone encompassed by the eastern Merovingian area and the Carpathian Basin between the end of the sixth and the first half of the seventh century AD. This situation implied a practical movement of goods and peoples, as attested by both archaeological and anthropological pieces of evidence, which resulted in the given period in the almost complete restructuring of economic systems (material culture) and in the partial alteration of autochthonous genomes of local populations (on a regional scale), following the integration (not always peaceful) of different cultures and ethnic groups.

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<sup>24</sup> S. Sublimi Saponetti, P. Emanuel and Vito Scattarella, "S. Giusto Paleobiologia di un campione scheletrico tardoantico proveniente dal complesso paleocristiano di San Giusto (Lucera, V-VII secolo d.C.)," *Insulae Diomedeeae* 4 (2005), 325–327; N. Di Nunno, S. Sublimi Saponetti, V. Scattarella, P. Emanuel, S. Lonero Baldassarra, G. Volpe and C. Di Nunno, "DNA Extraction. An Anthropologic Aspect of Bone Remains From Sixth- to Seventh-Century AD Bone Remains," *The American Journal of Forensic Medicine and Pathology* 28. 4 (December 2007), 333–340.