

W7 - Interactions at the dawn of history: Methods and results in prehistoric contact linguistics

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Workshop Description

It is well known that the elements of a language acquired through contact preserve traces of the past socio-cultural interactions of the communities that used it. This observation is particularly interesting when dealing with pre- and proto-historic realities, because it implies that these elements can be used to build bridges between languages and between language families, which in turn can be extremely useful in contextualizing such languages and family, in highlighting their positions in cross-linguistic networks, and in better locating them in relation with other languages, and thus both in space and time.

These linguistic concepts have been known for decades. However, recent developments in ancient genetics have introduced completely novel frameworks for investigating contacts between human populations in the past (Haak et al. 2015, Allentoft et al. 2015), which in turn have stimulated new, fresh debates about the possibility to combine ancient genetics, archaeology, and historical linguistics for the study of pre- and proto-historic realities.

As a result, new increasingly robust and sophisticated reconstructions of the social ecology of whole language families are being formulated (Sagart et al. 2019, Robbeets et al. 2021, Narasimhan et al. 2019, Rocha & Fehn 2016), and historical linguistics has witnessed a renewed interest in issues of contacts between pre- and proto-historic speech communities (and proto-languages). This new trend is well represented by various research projects on these topics that have been launched in the past few years, such as the recent ERC project by Guus Kroonen and his team, based in Leiden, which focuses on language contacts in prehistoric Europe in the context of Indo-European linguistics. It is also worth noting that this renewed interest is not limited to Europe and the Indo-European language family, but extends beyond it: good examples touching on different regions are the ongoing project of Wolfgang Behr based at the university of Zurich on pre- and proto-historic Wanderwörter in Central and East Asia, the recently concluded project by Federico Giusfredi on language contacts in pre-/proto-historic Anatolia, the recently (2022) launched project by Koen Bostoen at Ghent University on prehistoric contacts between Bantu and Khoisan languages, or the also recently (2022) launched project by Marwan Kilani at the university of Basel on linguistic interactions and Wanderwörter in Bronze Age Egypt and the Levant, just to name but a few.

These projects (and the work of several other scholars) are opening new avenues of research, are making new data available, and are suggesting new methodological approaches. Nevertheless, the work is far from over. On the contrary, the research developed in recent years has already yielded fruitful linguistic and historical insights, but it has also raised new questions and new methodological needs. First and foremost, there are theoretical questions that need to be discussed. While research on language contacts in modern languages has a long and established tradition, the systematic study of linguistic contacts in ancient languages

is still in its infancy, especially outside the Indo-European reality. Moreover, while the analytical frameworks developed to explore contacts in modern languages are undoubtedly valuable, the nature of the available evidence for ancient and proto-languages raises unique questions that require specific theoretical and methodological approaches to be answered satisfactorily. The fact that the data attesting prehistoric contact situations is usually limited and often difficult to substantiate by the comparative method alone, makes the need for solid, commonly agreed means to assess the veracity of hypotheses even more pressing. Moreover, the question of if and how linguistic data can be correlated with archeological and genetic evidence is becoming increasingly relevant, and sound discipline-specific methodologies (in our case, on the linguistic side) are a crucial basis for a constructive interdisciplinary dialogue.

It is thus clear that the question of language contacts and language interactions in pre- and proto-historic societies can be approached in multiple different ways, which we believe makes it an ideal topic for a conference such as this one.

First and foremost, we are aiming at gathering contributions that address methodological issues and offer new approaches to tackle them. We aim to have a good representation of research that focuses on non-European regions and/or deals with non-Indo-European languages, as we believe that a broader scope is essential to identify patterns and specificities. Discussions of specific case studies (whether based on single language-to-language interactions, or involving large geographical areas or *longue durée* approaches) is also welcomed and encouraged: good theory can only be developed on the basis of a careful and systematic investigation of real cases.

As mentioned above, several projects have emerged in recent years that aim to explore contact phenomena from different angles, often using interdisciplinary approaches that combine linguistic data with archeological and genetic evidence. Papers arising from such projects or presenting interim or final results are also welcomed.

We welcome discussions of contact phenomena touching on any linguistic level (phonology, morphology, lexicon, etc.), and we are especially interested in realities involving multiple languages. In this respect, we are particularly interested in contributions dealing with Wanderwörter that permeate several languages and distinct language families. Recent scholarship (Boutkan & Kossmann 2001, de Vaan 2008, Antonov & Jacques 2011, Haynie et al. 2014, Piispanen 2020, Peyrot 2016, Bjørn 2020, 2022, etc.) has focused on the specificities of Wanderwörter, highlighting how Wanderwörter are like breadcrumbs attesting ancient (and often pre- and proto-historic) networks of interlinguistic and intercultural interactions. Furthermore, Wanderwörter are characterized by two features that make them particularly interesting for the study of pre- and proto-historic contacts, namely their datability and their multiple interfaces. These two features can provide crucial insights into the historical and cultural contexts in which the words were transferred, thus making Wanderwörter a valuable tool for the investigation and contextualization of ancient interactions, of the participating speech communities, and of the history of the items they denote. Therefore, we believe that the analysis of Wanderwörter provides a very attractive topic for this conference.

Finally, we believe that there are several other types of language contact phenomena that deserve renewed scrutiny in light of recent and emerging research on prehistory, including but not limited to calques (e.g. Puhvel 1993), areal phenomena (e.g. Peyrot 2019), and extinct substrate languages (e.g. Lubotsky 2001). Papers focusing on these topics are also welcomed.

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Abstracts

1. Tracing borrowings in and out of proto-Nahuatl

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The Nahuan languages are group of closely related languages spoken in Mexico and El Salvador, which form a well-defined sub-branch within the southern branch of the Uto-Aztecan language family. They are the only Uto-Aztecan languages that form part of the Mesoamerican linguistic area. Proto-Nahuatl displays assimilation to the languages of Mesoamerica in all aspects of linguistic structure including phonology, morphology, and syntax. Surprisingly, the lexicon does not appear to have been affected to the same degree, as most of the core vocabulary of Proto-Nahuatl can be traced back to Proto-Uto-Aztecan. Identification of borrowings between Mesoamerican languages has played an important role in studying prehistoric processes of the area. For example the word cacao, proposed by Campbell and Kaufman (1976) as borrowings from a Mixe-Zoquean language that was widely diffused within the region has been seen as significant argument for the identification of the Olmec culture as Mixe-Zoque speaking. However, Dakin and Wichmann (2001) later argued that the word ‘cacao’ might have been of Uto-Aztecan origins and suggested that Nahua speakers had an early presence and a dominant role in trade networks in Mesoamerica (Dakin 2003). This argument was rejected by Terrence Kaufman and John Justeson (2007, 2009) who maintained that prior to the rise to dominance of Nahuan speaking peoples in the Post-Classic period, Proto-Nahuatl was primarily a recipient of borrowings from other Mesoamerican languages. They proposed a number of additional borrowings from Mesoamerican languages into proto-Nahuatl, from Mayan, Tepehua-Totonacan, and Mixe-Zoquean languages. These proposals of borrowings into Proto-Nahuatl have been used to locate the place of origin of Nahuan languages in the North-Eastern periphery of Mesoamerica during the Classic Period rather than in North Western Mexico closer to the other Uto-Aztecan languages (e.g. Beekman & Christensen 2003), or whether the proto-Nahua community was already located within central Mexico as argued by Dakin (2003). This challenges us to find out whether Proto-Nahuatl was indeed mainly a recipient language in Mesoamerica, or perhaps also a donor.

Ongoing reconstruction work on proto-Nahuatl and the intermediary stages of Uto-Aztecan shows that many loans identified by Kaufman and Justeson can equally well be seen as inherited from proto-Uto-Aztecan, suggesting the opposite direction of borrowing. However, Proto-Tepehua-Totonacan and Proto-Mixe-Zoquean lexicons have demonstrated cases where there are viable reconstructions in both language families, making it a hard to determine the direction of borrowing. Therefore, there is a pressing need to develop methodologies to assess and evaluate the overall probability of the different borrowing scenarios involving the Mesoamerican languages. The paper describes the challenges involved and suggests some avenues for developing an approach to this challenge.

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2. Pre-Bantu substrate in Batwa Bantu languages of the Congo rainforest: A comparative study of nasal-oral stop cluster reduction

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Rainforest Hunter-Gatherer (RHG) communities in Central Africa, also known as *Batwa* or “Pygmies” and commonly seen as the descendants of the region’s earliest modern humans, are thought to have abandoned – in times unknown – their own ancestral languages for different Bantu, Central Sudanic or Ubangi languages. As there are no written records of those putative ancestral RHG languages, two main research strategies have been pursued in the search of a potentially shared prehistoric RHG substrate: (i) lexical comparison aimed at identifying traces of ancestral pre-shift vocabulary (Carpaneto and Geremi 1992; Bahuchet 1993; Hideaki and Ichikawa 2003; Terashima 2003; Demolin 2021) and (ii) phonological and morphological features distinguishing the varieties spoken by RHG from those spoken by food-producing populations (Hulstaert 1948; Schebesta 1952; Vorbichler 1964, 1967, 1968; Hulstaert 1978; Möhlig 1981; Motingea Mangulu 1994, 2010, 2021). Although it is challenging to recover Central Africa's pre-Bantu linguistic landscape, recent historical-comparative research focusing on languages of Bantu speech communities which may have incorporated ancestral RHG suggests that linguistic diversity among autochthonous RHG before they shifted to Bantu languages might have been high (Pacchiarotti and Bostoen 2021). In this talk, we focus on a specific phonological feature possibly diagnostic of RHG substrate, namely the simplification of NC clusters (where N= nasal and C = oral stop) in favor of the oral stop (e.g. /ŋg/ > /g/). This sound shift, which is quite rare in Bantu, has recently been observed in some newly documented RHG Bantu languages spoken in the southern fringes of the Congo rainforest, more specifically in the Mai-Ndombe province of the Democratic Republic of the Congo (DRC). In languages of the West-Coastal Bantu (WCB) branch spoken in and to the southeast of the Mai-Ndombe, the simplification of clusters of nasal and oral stops is also widespread, but always in favor of the nasal (e.g. /ŋg/ > /ŋ/). In other RHG Bantu languages of the Mai-Ndombe and in geographically more distant RHG communities to the north and west, there is no such simplification.

This phenomenon is of particular interest for at least three reasons. First, unlike the Bantu dissimilatory sound change known as Kwanyama’s Rule, whereby a NC cluster is reduced to C in C(onsonant)² position if the word contains another NC cluster in C1 position (e.g. *ŋgàndú > ŋgàdú), the simplification phenomenon in selected Mai-Ndombe RHG varieties happens independently of the nature of C1. This type of change is very uncommon in Bantu and contrasts with the type of NC cluster simplification found in neighboring WCB languages. Second, the same NC cluster simplification has been reported in other Bantu languages spoken further north in the Congo rainforest by RHG communities (Chabiron et al. 2013). Third, often times /d/ as the simplified outcome of *nd is realized as [d] in selected Mai-Ndombe RHG varieties. These also attest an abundance of retroflex flaps [ɾ] elsewhere uncommon in Bantu. Apparently, RHG communities speaking the Central Sudanic language Efe also show the retroflex realization of [d] and [r] which is a phonetic feature not shared by non-RHG communities speaking Efe and closely related Central Sudanic varieties such as Mamvu and Mangbetu (Vorbichler 1967, 1968). Besides RHG varieties, a couple of apparently non-RHG Bantu varieties in the Mai-Ndombe also attest a phonemic nasal retroflex /ŋ/ (historically originating in C2 *n and *nd), a unique case in Africa to the best of our knowledge (Maselli et al. 2022).

We will provide a systematic account of the distribution of this unconditioned NC cluster reduction in newly and previously documented RHG Bantu languages in order to assess the historical implications of this possible substrate feature. We will also assess to what extent retroflexion should indeed be considered as an additional substrate feature.

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3. Prehistoric language contact in Berber

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In Nichols' (1992) terminology, North Africa and the Sahara constitute a classic spread zone, dominated throughout most of recorded history by a single indigenous language family: Berber. Any analysis of prehistoric language contact around the Mediterranean accordingly needs to take Berber into account. The surprising homogeneity of this family seems to reflect a history of repeated levelling events, facilitated by interregional trade and by high mobility in pastoralist regions (Souag 2017). The contact history of Berber is likewise overshadowed by the influence of major expansions into the region, with successive layers of Punic, Latin, Arabic, and Romance loanwords predominating even in regions neither Carthage nor Rome ever dreamed of ruling (Vycichl 1952; Múrcia Sánchez 2011; Kossmann 2013; Blažek 2014). Berber languages have nevertheless preserved a certain number of clues to what preceded these eras of centralisation.

A number of candidate prehistoric borrowings are pan-Berber. A couple of Egyptian borrowings are prominent in date palm terminology, reflecting the westward expansion of this agriculturally vital species (Kossmann 2002; Vycichl 1991); some localised words shared with Nubian, such as 'onion', may reflect a similar contact scenario (Vycichl 1961; Kossmann & Jakobi *fc*). The numerals 5-9 are evidently Semitic in origin, but equally evidently reflect contact with a stage of Semitic more conservative than Punic or even Arabic. The names of several metals, such as iron and silver (Boutkan & Kossmann 1999), are well-known *Wanderwörter* whose precise source presents difficulties but must be rather early; a comparable situation is found for equine terminology. Efforts to identify Berber roots for "proto-Mediterranean" substrate terms in languages of the northern Mediterranean (Chaker 2013; Argiolas 2020) largely appear unconvincing, but suggest some promising directions for further research.

Aside from prehistoric contact between Berber and other families, the increasing attention paid towards intra-Berber variation opens up the difficult but interesting possibility of exploring prehistoric substrata within North Africa itself. The most promising case so far involves the Tuareg of the central and southern Sahara, where a number of phonologically anomalous terms with no good Berber source are concentrated in the domains of hunting and farming (Kossmann 2005). Analysis of kinship terminology suggests that this reflects a substratum with similarities to modern Songhay, whose speakers would have a substantial influence on Tuareg social structure. Much less can be said for the present about other areas, but in the Fezzan a few words seem like potential candidates for remnants of a Saharan substratum, while the sharply divergent vocabulary of Zenaga is unlikely to be explicable solely in terms of an early split.

The time is ripe for reexamining prehistoric loans in Berber: more comparative data is available on Berber languages than ever before, and our understanding of the historical phonology of Berber has advanced significantly in recent decades (Prasse 2003; van Putten 2019; Kossmann 2020). This talk will therefore seek to present a new synthesis, sifting better candidates from proposals that need to be abandoned and suggesting new possibilities.

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4. Linguistic convergence in the Ancient Near East

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Applying advanced methods (sBayes, Ranacher et al. 2021) Efrat-Kowalsky et al. (in rev.) found evidence for an amount of similarity between the unrelated ancient Near East languages Hurrian and Sumerian that cannot be accounted for by contact, universal preferences, or inheritance. The authors suggest that Hurrian and Sumerian might be the last survivors of an earlier area which was wiped out by later spreads of Semitic and Indo-European, or alternatively, Hurrian and Sumerian reflect an ancient global distribution which is different from today's.

We follow up on this promising approach and assess the impact of language sampling on the results. To do this, we expand the language sample by adding languages from the same region (e.g. Ancient Greek, Classical Armenian, Old and Middle Iranian varieties) and ancient and medieval varieties from Europe that were not part of the original sample. We apply the same methodology as Efrat-Kowalsky et al. (in rev.) and find that Hurrian and Sumerian still display similarity that cannot be explained by genealogy or universal preferences. However, the algorithm identifies two Indo-European languages, Middle Persian and Classical Armenian, that are assigned to the same cluster as Hurrian and Sumerian. We suggest that the similarity between these languages is best explained by areal convergence, a signal formerly not captured because of the restricted language sample.

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5. Language Contact in the Ancient Caucasus: the View from Kartvelian

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The Kartvelian language family has been spoken in the southwestern portion of the Caucasus since at least the Middle Bronze Age (Tuite 2004), and as a consequence constitutes a particularly rich window onto language contacts throughout the region. Unlike almost all other autochthonous Caucasian languages, the written attestation of such contacts also extends back to the fifth century A.D. in the Old Georgian corpus. This allows us to trace with much greater precision than with most other regional languages how and when such contacts occurred. In this talk, I will provide a survey of Kartvelian's contacts with other language families, and discuss how these contacts elucidate various aspects of the phonological history of Kartvelian and other language families.

We might divide the set of lexical contacts of Kartvelian into five main sets: (1) intra-Kartvelian; (2) Indo-European, (3) Nakh-Daghestanian, (4) Semitic and (5) all other non-Indo-European. The first category of contacts has occurred continuously since the protolanguage's first phylogenetic differentiation, but is visible in texts mostly as borrowings from the Zan languages (Megrelian and Laz) into Georgian and, later, Svan, and Georgian into all the other branches. The second consists of a vast and diverse array of direct loans in various periods from Greek, Indo-Iranian, Armenian, Hittite and other often indeterminate but likely Indo-European sources. The third consists of loans (often with fossilized remnants of gender markers) from Lezgian, Tsezic, Nakh, and Avar-Andic languages or other languages likely from the Nakh-Daghestanian family (Xalilov 1993). The fourth consists of loans primarily from Akkadian and Aramaic, but also a distinct residue of loans from unclear Semitic sources. Although it is likely that Kartvelian has/had been in contact with Abkhaz-Adyghean and Hurro-Urartian languages since remote antiquity, demonstrable evidence of direct ancient lexical loans from these sources is surprisingly limited. (Loans from Abkhaz into Megrelian are ubiquitous however.)

Such loans both within and without Kartvelian not only provide a picture of who Kartvelian speakers were in contact with, it also provides data that allow us to understand the internal phonological development of the family. By careful comparison of dates of first attestation with attested forms in donor languages, we can begin to build a picture of when certain phonological shifts occurred over time. Thus the Megrelian shift that raised *a to /o/ (Gamkrelidze & Machavariani 1965; Fähnrich 2007) must have occurred after *pat- was borrowed into Greek as *Φᾶσις*, but before Greek's own well-documented rule of assibilation; this Zanism became the modern town of *Poti*. This narrows down the Megrelian sound-shift to around the late first millennium BC. And because some Svan words like *čönčx* 'skeleton, face' borrowed from Megrelian *čončxi* undergo umlaut, we can date Svan's umlaut rule to a period after Megrelian's raising rule. Likewise, the Megrelian rule lowering *e to /a/ and epenthesizing nasal obstruents in accented syllables must have occurred after a loaning event: *mankana* 'machine, device' from Greek *μηχανή*. We also see direct evidence for the loss of a laryngeal in Kartvelian: Kartvelian **hezo* 'courtyard' from Ugaritic *h̄zr* 'courtyard'. Such ancient contacts in other words reveal not just the lexical but also the structural history of the family.

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6. An archaeolinguistic approach to Indianisation and Sinicisation of languages in Eastern Eurasia

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et alii (see after the abstract)

Linguistic processes of Indianisation and Sinicisation are two areal phenomena visible across respective contact zones in Eastern Eurasia. They occurred from late prehistory onwards with major watersheds marked by the introduction of writing systems and vocabularies, giving expression to cosmopolitan modes of rulership, religion and trade. Linguistic Indianisation and Sinicisation have consequent correlation in the material record, which over the same period reflects multiple trajectories of state formation and subsequent transnational history. Processes of linguistic and cultural spread have been extensively studied for the individual regions (e.g. Smith 1999; Byington 2013; Carter et al. 2021; Huang & Kang 2022), but fewer transregional comparisons have been conducted (e.g. Lieberman 2003, 2009; Manguin et al. 2011).

Adapting principles of the Wave Theory (Schmidt 1872) to Güldemann's (2008) model of linguistic area, our study delineates the spatially variegated degrees of Indianisation and Sinicisation as they extend into Southeast and Northeast Asia from first millennia BCE to CE. Combining evidence from linguistics, archaeology and history we examine whether the degrees of contact-induced outcomes decrease relative to geographical distance from their areal hotbeds as is the case for Western Lingnan Sprachbund (Szeto & Yurayong 2022). We predict geographic radially being complicated by maritime polities. Our study is further informed by Watkins' (2000: xxii) parallels between language as a cognitive nonmaterial culture, and artefacts as material culture. We hypothesize that certain categories, such as loanwords/Wanderwörter in language, and prestige items for trades in material culture, represent more superficial layers of their respective fields which travel further, while categories including typological profiles, toponyms and artefacts reflective of local subsistence patterns constitute deeper layers which travel less far. Such variegation will become complicated with the adoption of cosmopolitan signification systems by early states giving rise to multiple sub-areal hotbeds which together form larger core circles of contact. The data are visualised cartographically with ArcGIS programme by illustrating four categories of evidence: 1) ancient epigraphs in which historical discourse on contact events with the Indic and Sinitic civilisations were attested, 2) ancient Indic and Sinitic-styled architecture, 3) sites where traded goods as traces of the maritime silk road have been found, and 4) language communities reconstructed through historical records and their present-day distribution. The first three sets of data are interpreted as presence or absence of evidence, while the linguistic data can be further quantified by scores aggregated from degrees of Indic or Sinitic loanwords and typological convergence which each language datapoint shows. The anticipated results will show that toponyms, ancient epigraphs and architecture such as ancient commanderies can be used to draw boundaries of the areal hotbeds which falls under a direct contact with the source of influence, while shared typological tendencies lying in human cognition can extend further to the core circles with lower contact intensity. Meanwhile, loanwords/Wanderwörter and traded goods such as glass beads can spread beyond the core circles towards the peripheries where contact influence is not necessarily direct but transmitted through intermediators. For instance, traces of native Sinitic epigraphs and commanderies are located as far as to Liaodong Peninsula in the north and Northern Vietnam in the south, marking boundaries between the areal hotbeds and core circles in which the degree of linguistic Sinicisation observed in Koreanic and Vietic is high (Eom 2015; Alves 2022), while the degree of Sinicisation gradually decreases towards the peripheries as it was largely transmitted secondarily through Koreanic to Japonic (Yurayong & Szeto 2020) and through Vietic to Chamic (Thurgood 1999).

The current study puts Eastern Eurasia in the current trend of a cross-disciplinary approach to prehistoric contact and its outcomes by illustrating more quantifiable data illustration and analysis methods which can facilitate estimation of degrees of contact intensity in different times and spaces.

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