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# BEYOND ETYMOLOGY: HISTORICAL RECONSTRUCTION AND DIACHRONIC TOPONOMASTICS THROUGH THE LENS OF A NEW CONVERGENCE THEORY<sup>1</sup>

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*Summary:* This paper introduces basic principles of a New Convergence Theory (NCT) into the field of Indo-European linguistics. The first part of the article is dedicated to a brief evaluation of current approaches to the Indo-European origins and etymology as well as to the theoretical explanation of the NCT's epistemological fundamentals. The second part deals with some examples of the etymological reconstruction conducted according to this innovative approach, in which historical phonetics, historical semantics, historical geography, and landscape archaeology are utilized for recovering the most ancient origins of prehistoric European names.

*To my beloved wife, DuoDuo*

This work aimed to introduce some new proposals into Indo-European etymological reconstruction (in particular into the field of historical toponomastics and general onomastics) according to the principles of the New Convergence Theory (NCT, in Italian *Teoria della Conciliazione*)<sup>2</sup>. In the times in which Indo-European linguistics has reached a very high level in etymological reconstruction as well as reconstruction of various proto-forms, it could be useful to develop an integrative methodology (which does not replace the existing ones, but complements them) taking into account several additional issues.

Indo-European linguistics has seen, also quite recently, some «vigorous» confrontations among different theories on the origins of the Indo-European languages. It seems undisputed that the comparative method has been and has to remain the basis of the linguistic reconstruction. The historical repertoires and Indo-European dictionaries are very important instruments as reference texts for almost every etymological reconstruction. Nevertheless, in many cases the data could need some further and additional critical analyses.

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<sup>1</sup> This work has its origins in memorable and very fruitful discussions with Prof. Dr. Guido Borghi (Università degli Studi di Genova, Istituto di Glottologia, Genova, Italy), a brilliant linguist and a dear friend. I would like to express to him all my gratitude. Some of the contents of this paper were presented in a series of seminars between September 2013 and April 2014 at the Nanyang Technological University (NTU), Division of Linguistics and Multilingual Studies (LMS). My sincere thanks to Assoc. Prof. Francesco Paolo Cavallaro and to Asst. Prof. František Kratochvíl (Nanyang Technological University, Division of Linguistics and Multilingual Studies, Singapore). Without their constant encouragement and valuable friendship this study would not have been possible. E-mail of the author: fcacciafoco@ntu.edu.sg.

<sup>2</sup> Cf., e.g., [Perono Cacciafoco 2013a: 70-86, 2013b: 7-25, 2013c: 91-107, all with bibliography].

Sometimes, in Indo-European linguistics, the extreme refinement of methodologies leads to an interpretation of evidence according to a «pan-Indo-European» point of view. For a long time the traditional reconstruction has tended to depict the Indo-Europeans as a population of invaders coming from the East (an unspecified East, from the steppes of Caucasus and beyond to Anatolia) to India and Europe in approximately two waves placed in different times by different scholars, between 5000 and 3000 BC<sup>3</sup>. Before Indo-Europeans, other populations would have occupied those territories, the so-called pre-Indo-Europeans, perhaps «natives» (in a broad sense) who settled in those areas as a result of the first expansion of *Homo sapiens* from Africa<sup>4</sup>. Now this traditional vision is appearing in another light through historical, etymological, and genetic reconstructions conducted with a «pan-Indo-European» approach. Linguists who are applying this interpretation argue that the Indo-Europeans would have been the first inhabitants of their prehistoric and, then, historical territories, from the beginning – at least – of the spread of *Homo sapiens*. The notion of a pre-Indo-European stratum, therefore, becomes useless and superfluous in their reconstruction. They base their hermeneutic reasoning on a new interpretation of Indo-European and non-Indo-European languages of Europe, on new etymological reconstructions (conducted following their own methodology), and on data from genetics (e.g., the analysis of mitochondrial DNA), which seem not to confirm a real «break» in the genetic chains of populations during the alleged transition between pre-Indo-European and Indo-European ages.

This kind of research was extended in a so refined way that it led to an attempt by Gianfranco Forni<sup>5</sup> to reconstruct, according to an Indo-European interpretation, also languages hitherto always considered non-Indo-European, such as the Basque, in order to find a sort of confirmation of the supposed «pan-Indo-European nature» of the Indo-European populations.

This reconstruction differs not only from the traditional interpretation of the dichotomy pre-Indo-Europeans/ Indo-Europeans, but also from the well-known Vasconic Substratum Hypothesis proposed by T.Vennemann. According to this German linguist, indeed, the toponymic evidence is sufficient to conclude that Basque is the only survivor of a larger family (maybe the pre-Indo-European family) of languages that once extended throughout most of Europe, and that they left their mark in modern Indo-European languages spoken in Europe<sup>6</sup>. The Vennemann's theory focused on the role of Afro-Asian and Vasconic (e.g. Basque) languages in the prehistoric development of Indo-European languages

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<sup>3</sup> Cf., among others, [Martinet 1986].

<sup>4</sup> Cf. [Richards et al. 2006: 225-265, Cavalli-Sforza 1996: 157 and passim, Cavalli-Sforza et al. 1997: passim].

<sup>5</sup> Cf. [Forni 2013a: 39-181, 2013b: 268-311]. Very relevant discussions about the Indo-European/ Basque debate are provided in the *Journal of Indo-European Studies* 41, 1 & 2 (2013), available at: [http://www.jies.org/docs/jies\\_index/Vol41.html](http://www.jies.org/docs/jies_index/Vol41.html) (retrieved: 09/10/2014). Some of the studies of Gianfranco Forni are currently in press. However, it is possible to read interesting documents at his *academia.edu* profile: <http://independent.academia.edu/GianfrancoForni> (retrieved: 09/10/2014).

<sup>6</sup> Cf. [Vennemann 2003].

in Europe. It is presented in the celebrated book *Europa Vasconica – Europa Semitica*, a collection of 27 of the author's essays. Vennemann argues that after the last Ice Age most of Central and Western Europe was inhabited by speakers of Vasconic languages, the only survivor of which is Basque. These speakers formed a substrate to the later-arriving Indo-Europeans. The primary evidence for the presence of Vasconic throughout much of Europe is drawn from the old European hydronyms originally identified by Hans Krahe<sup>7</sup> as Indo-European and reanalyzed by Vennemann as Vasconic.

Vennemann believes that Afro-Asian speakers colonized coastal regions of Western and Northern Europe starting from the fifth millennium BC. According to his theory, these speakers formed a superstrate, or adstrate, in Northern Europe and had a profound impact on the lexical and structural development of Germanic languages. In the British Isles, the language of these colonizers, which Vennemann calls «Semitidic» (also «Atlantic»), had a strong substratal influence on the structural development of Insular Celtic. According to Vennemann, therefore, after the last Ice Age Vasconic people from today's Basque region of Northern Spain and Southern France resettled Western Europe. They gave names to rivers and places. These names often remained after Vasconic languages which were later replaced by Indo-European languages. This reconstruction is based on evidence in old European hydronymy that has been noticed by Hans Krahe (and, in material culture of Europe, by M.Gimbutas) and that is suggested to be relics of a pre-Indo-European substratum. Many linguists have rejected the Vennemann's hypothesis<sup>8</sup> which is, in any case, admirable (and quite distant from the «pan-Indo-European» approach).

It could be plausible to state that the «pan-Indo-European» hypothesis comes diachronically after the scientific discussions (in the field of Indo-European linguistics) in the 80s and 90s of the XX century between the Indo-Europeanists and the so called «pan-Semitists», followers of the «pan-Semitic theory» developed by Giovanni Semerano, a theory that bluntly affirms that the notion of Indo-European would be an invention of linguists and that all the etymologies and the onomastic roots of the «so-called Indo-European» are, in reality, due to a Semitic substrate and always reconstructable through Semitic etymologies<sup>9</sup>. The Semerano's point of view is clearly extreme. During the years in which it has been debated, the discussions between Indo-Europeanists and pan-Semitists have been very energetic, mainly in Europe and especially in Italy, creating a strong opposition between two different schools of thought and between two different approaches to Indo-European linguistics, apparently incompatible and irreconcilable. The current «pan-Indo-European» point of view could be also (not only, but also) read as a further development of the strong opposition to the «pan-Semitic theory».

Both theories, in any case, show more than one methodological and also substantial *aporia*, mainly due to the fact that they both try to reconstruct all the

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<sup>7</sup> Cf. [Krahe 1962].

<sup>8</sup> For comments and criticisms about the Vennemann's theory, cf., among others, [Baldi, Richard Page 2006: 2183-2220; Kitson 1996: 73-118; Steinbauer 2005: 53-67].

<sup>9</sup> Cf. [Semerano 1984, 1994].

aspects of a diversified linguistic and historical context through the lens of only one – and rigid – point of view and approach.

Another important theory about Indo-European origins (involving the general origins of world languages) is the so called Paleolithic Continuity Theory – PCT (or Paleolithic Continuity Paradigm, in Italian *Teoria della Continuità*), developed starting from the middle of the 90s of the XX century by Mario Alinei and his international work-group<sup>10</sup>. The PCT is really relevant, if a scholar accepts its methodological and hermeneutic principles, because it allows solving many problems in an epistemological key and gives valuable explanations to many etymologies otherwise not reconstructable. This theory takes into account paleontology and genetics, does not exclude the Neolithic Dispersion Theory by Colin Renfrew, and explains many etymologies as derived from a continuous development of language(s), without refusing *a priori* the overlap and displacement of populations over the millennia.

Despite the active intervention (besides Mario Alinei) of distinguished linguists, such as Guido Borghi and Xaverio Ballester, in the development of this theory, the PCT is not universally accepted and is, indeed, rejected *in toto* by various scholars who do not share the concept of continuity.

The three current main approaches (all three, however, of «ancient tradition» in Indo-European linguistics, regardless of their latest developments) appear in opposition to each other.

It is necessary to mention also the very relevant (and, indeed, really sophisticated) theory by Tamaz Valeryanovich Gamkrelidze and Vyacheslav Vsevolodovich Ivanov, the so called Glottalic Theory<sup>11</sup> about the Indo-European consonantism. It places the Indo-European *Urheimat* in the area of the Armenian Highlands and of Lake Urmia. It is a theory refused by the most Indo-Europeanists, even if it would allow explaining some obscure points of the development of proto-Indo-European and despite the huge hermeneutic effort made in order to elaborate it scientifically.

Debates without a common «meeting point» could produce a basic misunderstanding or a distortion in the historical and linguistic reconstruction of Indo-European languages and civilizations.

Serious discussions, above all in the context of the study of European place names, still continue, because toponyms are considered (especially in Europe) very conservative and precious «relict-forms» (or also «relic-forms»), and pre-historic onomastic linguistic «fossils». Place names often allow the linguists tracing back the origins of languages and going back to the remote roots of a toponymic system and of an idiom, giving the opportunity to confirm or to deny theories and hypotheses.

In this diversified scenario another debated theory gives its contribution. It was proposed by Claudio Beretta. In his bilingual book *I nomi dei fiumi, dei monti, dei siti. Strutture linguistiche preistoriche/ The Names of Rivers, Mounts,*

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<sup>10</sup> Cf. [Alinei 2000a, b]. Very relevant data and texts are available at: <http://www.continuitas.org/index.html> (retrieved: 09/10/2014).

<sup>11</sup> Cf. [Gamkrelidze, Ivanov 1995].

*Sites. Prehistoric Linguistic Structures*<sup>12</sup>, he tried to analyze the names, in particular the place names, following a different approach. He crossed the genetic data collected over the years by L.L.Cavalli-Sforza and his work-group<sup>13</sup>, highlighting a concept as simple as crucial. The study of place names (toponyms, hydronyms, oronyms), should be conducted not only on a strictly linguistic basis, in the etymological «pure» and «abstract» reconstruction, but, rather, it should also take into account the geo-morphological characteristics of studied sites, the paleontology and paleo-anthropology of their territories, and data provided by archaeology. The historical linguist and the etymologist would have to focus their attention, therefore, not only on the etymology *stricto sensu* of a place name, but also on the verisimilitude of the linguistic reconstruction in relationship with the «real» data from the territory and with the suggestions provided by other related sciences in order to reconstruct the most possible accurate etymology of a place name.

The Beretta's methodology, as it has been presented by the scholar, is not free from flaws. The first and more relevant, among them, is the total lack of application of historical phonetics, the focus of the Beretta's studies being the simple «morphology» of place names and the historical semantics of the same names. Without historical phonetics, the Beretta's method appears weak and questionable. It would be also «dangerous» to follow unreservedly his reconstruction process, especially because it could, when interpreted to extreme (or radical) consequences, lead to approach the (not always scientific and, in any case, controversial) theory of the common ancestral and archetypal proto-language as the origin of all languages of the world. This theory is reverberated, among others, in the works of M.Ruhlen and, before him, of J.H.Greenberg<sup>14</sup>.

The «weakness» of the Beretta's method is inherent in the exclusively «morphological» analysis of the structure of place names (for example the composed forms/ compounds). The idea that a scholar can erroneously obtain from this procedure is inherent in a common and generalized structure of the naming process (the «making» of names) around the world in prehistoric times. Precisely because of the lack of application of historical phonetics, the Beretta's methodology could have been misunderstood by scholars and refused *in toto*. If interpreted with prudence and applied on a case-by-case basis, with the decisive contribution of historical phonetics, instead, it allows giving really valuable reconstructions of place names through historical semantics and the evaluation of historical geography. The combination of historical phonetics, historical semantics, and historical geography in the etymological reconstruction provides also useful and all-embracing elements for a diachronic interpretation of the different population movements and settlement dynamics that Europe knew during prehistoric ages. Moreover, through this enhancement and improvement of the Beretta's methodology, it is possible to try a sort of «conciliation»/ «conver-

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<sup>12</sup> Cf. [Beretta 2003].

<sup>13</sup> Cf., e.g., [Cavalli-Sforza 1996, Cavalli-Sforza et al. 1997]. Really advanced studies on the genetics of prehistoric populations are currently conducted by Ornella Semino, University of Pavia, Pavia, Italy, and her work-group.

<sup>14</sup> Cf., e.g., [Ruhlen 1994a, b, Greenberg 2005a, b].

gence» between the two models of Indo-European «movements» drawn by M.Gimbutas – the celebrated and widely accepted Kurgan Hypothesis<sup>15</sup> (inherent in the hypothesized «arrival» of the Indo-Europeans in their territories around 4000-1000 BC in different steps, following the path of the Kurgan culture, the Kurgan burials) – and the divergent Agricultural Hypothesis by C.Renfrew, the so called Anatolian Hypothesis, stating that the (proto-)Indo-Europeans lived 2000 years before the Kurgans in Anatolia and that later they spread, following the path of the Neolithic development of agriculture, to Greece, then Italy, Sicily, Corsica, the Mediterranean coast of France, Spain, and Portugal (according to Renfrew, another [proto-]Indo-European branch migrated along the fertile river valleys of the Danube and Rhine into Central and Northern Europe).

Using carefully and changing «DNA» of the Beretta's method, we can hypothesize that one approach (Gimbutas) does not exclude *a priori* the other (Renfrew) because of genetics evidence and of place names' «morphology». We can merge, therefore, the Kurgan migrations with the Renfrew's «movements». Similarly, we can associate the valuable reconstruction by J.P.Mallory<sup>16</sup>, with his defense of the linguistic paleontology against the Renfrew's theory, with the two former hypotheses, because the lack of a change in the naming process can indicate different (more than two) waves of «arrival» of the Indo-Europeans in their territories.

In any case, the Beretta's method in itself does not allow analyzing scientifically the aspects of the study of prehistoric European toponymy and can lead to mistakes. It is necessary, as told, to expand his reconstruction methodology by a utilization of historical phonetics, adding the proper etymological analysis to the morphological, semantic, and historical-geographical survey.

This aim is the foundation of the NCT, the systematic application of historical phonetics to an all-embracing study of ancient place names (paleo-place names = toponyms, hydronyms, oronyms), associating the etymological reconstruction with the study of historical semantics of analyzed forms and evaluating the historical geography of place names' sites. The study of the morphology on territories in which the examined places are located (historical geography and historical topography) has to be diachronic, taking into account the changes of landscape over the millennia (landscape archaeology).

The NCT aims to develop a new outlook about the origins, movements, and settlement dynamics of Indo-European populations, using data from different databases in order to develop an all-embracing method, which can reconstruct prehistoric etymology of European place names and find a sort of conciliation between the different epistemological approaches in Indo-European linguistics. According to this interpretation, it is possible, therefore, to postulate contacts, in ancient times, among different linguistic families, Indo-European and Semitic ones (even during the movements of the Indo-Europeans), and interchanges of onomastic and toponymic roots, names, and words between the two families.

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<sup>15</sup> Cf., e.g., [Gimbutas 1989, 1999, 2007, 2010, Renfrew 1987, 1979, 2007].

<sup>16</sup> Cf. [Mallory 2005].

Two of the most relevant methodological foundations of the NCT are the notions of reuse and refunctionalization, applied to onomastic roots (especially in the field of prehistoric toponymy, hydronymy, and oronymy) and borrowed (*mutatis mutandis*) from classical philology, where they are mainly related to the «seriality» of the «formulaic» verses in the Homeric poems<sup>17</sup>.

Trying to reconcile the «extreme» and opposite «pan-Indo-European» and «pan-Semitic» approaches, the NCT investigates, as told, possible linguistic contacts and exchanges, in prehistoric times, between the Indo-European and the Semitic linguistic families, in the original phases of the proto-Indo-European and (proto-)Semitic, or, according to another possible definition, pre-proto-Indo-European and proto-Semitic.

It seems, in fact, plausible to hypothesize contacts during the supposed pre-historic Indo-European migrations, perhaps in the Middle East or in the Northern Africa, between the same Indo-Europeans and the Semites. During these «meetings» (maybe clashes), also not automatically connectable with the main Indo-European settlement dynamics (perhaps peripheral displacements or expansions), speakers belonging to the two linguistic families may have exchanged, in a natural process, elements of their vocabularies and borrowed words (especially in order to indicate specific places or specific objects). These loan-words (witnessed by onomastic roots) would have been, subsequently, naturally inserted by speakers in their respective language systems, phonetically adapted, reused, and refunctionalized in order to meet the needs of the related «destination languages».

This dynamics could have been repeated after the «arrival» of the Indo-Europeans in their territories, with the so called pre-Indo-European populations, in a dichotomy pre-Indo-European/ proto-Indo-European. Indo-European could be considered, according to this approach, the fusion of the proto-Indo-European with the pre-Indo-European also through the reuse and refunctionalization model. It is, therefore, possible to define this Indo-European proto-Indo-European, considering the proto-Indo-European as the result of the «merger» of pre-Indo-European linguistic elements with the pre-proto-Indo-European. Pre-proto-Indo-European would be, therefore, the result of the contacts of the «original» Indo-European with the (proto-)Semitic language(s).

In any case, it seems only a question of terminology. It is possible to define, conventionally, the pre-proto-Indo-European as the original (and common) Indo-European language during and after the remote contacts with the (proto-)Semitic language(s). The proto-Indo-European (or common Indo-European) would be, instead, the pre-proto-Indo-European language after the amalgamation with the pre-Indo-European substratum and before the differentiation into various Indo-European languages.

Just to give an example, an epistemological application of the NCT to the European (and Italian) toponymic context has been operated inherently in the ancient (proto-)Indo-European root *\*alb-* (*\*albh-* ‘water’)<sup>18</sup>, analyzed on the

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<sup>17</sup> Cf., e.g., [Di Benedetto 1999: 193-225, 2001: 7-14].

<sup>18</sup> Cf., for all details and complete bibliography inherent in the *\*alb-* (*\*albh-* ‘water’) root [Perono Cacciafoco 2013a: 70-86, 2013d: 102-128].

basis of historical semantics, following the different passages in the meaning change/ development of this same root ('water' → 'city located on the water' → 'city', Latin *Alba*, and 'water' → the 'light/ clear color of water' → 'white', Latin *albus*), and with the application of historical phonetics (*\*alb-* = ablauting /o/, *\*olb-* = /l/ r «pseudo-rhotacism» = *\*arb-*, ablauting *\*orb-*).

The *\*alb-* (*\*albh-*) root, among others, is really effective to show the NCT's approach, because it allows outlining a «conceptual bridge» between Indo-European and Semitic. The stem has been rightly considered as pertaining to the common Indo-European *milieu*, with the meaning 'water'. Probably *\*alb-* was originally indicating 'water' in a generic sense. The root, then, was involved in a process of «semantic specialization» (operated by speakers), passing to describe the 'light/ clear/ transparent' color of water or the 'greyish/ whitish' color of the bed of a watercourse (stream/ torrent), the color of the stones under the flowing water or the color of ice, that is, frozen water. In historical times, in Latin, words derived from the *\*alb-* root were subject, as above mentioned, to a semantic change in a dual direction: **1**) according to the color, the 'light/ clear/ transparent' color of water → the 'with' color of water → the white (color), Latin *albus* 'white'; **2**) according to the meaning 'water', it started to indicate a 'place located on the water' (river, stream/ torrent, lake, or sea), a village or a town. Most of the cities, above all in antiquity, were situated on a watercourse in order to provide water to their inhabitants. The Roman towns had a particular necessity of water because of the presence of the army in every Roman center (water was fundamental for soldiers, also in the medical ambit). It was normal and taken for granted, therefore, that a town was located on a watercourse (on the water) and the Latin word *alba* started to indicate no longer, semantically, a 'place situated on the water', but a city *tout court*, a town.

The European ancient world is full of places named *Alba* (resulting in variable forms in the different Indo-European territories, with some changes due to the ablaut /a/-/o/ or to the passage /l/-/r/), with many derived place names or hydronyms like, e.g., **1**) North-Western Italy (Piemonte and Liguria), Celtic and Latin (Indo-European substratum) *Alba* (on the Tanaro river), *Olbicella* (*\*alb-* > *\*olb-*, on the Orba river), *Orbicella* (*\*alb-* > *\*olb-* > *\*orb-* 'stream/ torrent'), *Orba* (river), *San Pietro d'Olba* (on the Orba river), *Martina d'Olba* (on the Orba river), *Urbe* (on the Orba river, not from Latin *urbs*, but from *\*alb-*, *\*alb-* > *\*olb-* > *\*orb-* > *\*urb-*), *Albisola Superiore* (on the Ligurian sea), *Albissola Marina* (on the Ligurian sea), Ventimiglia (< *Albintimilium*, on the Ligurian sea), *Albenga* (< *Album Ingaunum*, on the Ligurian sea), constituting a real onomastic *\*alb-* (*\*albh-*) system indicating watercourses or places located on the water; **2**) the numerous *Olbia* (< *\*alb-*, ablauting *\*olb-* = *Alba*) of the Ancient World (on rivers or sea); **3**) the ancestral name of the Tiber river, *Albula* (Latin *Tiberis*); **4**) the original name of Great Britain, *Albion*<sup>19</sup>.

Both in the field of general onomastics and in historical toponomastics (toponymy, hydronymy, and oronymy) the *\*alb-* (*\*albh-*) root is really productive, starting from the proto-Indo-European and spreading in all the Indo-European historical languages.

<sup>19</sup> Cf., for example, [Dolgopolsky 1998, Biggam 2012].

Anyway, it is difficult to affirm (according to a «pan-Indo-European» approach) that this root is «only» Indo-European or (according to a «pan-Semitic» approach) that it derives directly from Semitic, without problematizing and discussing its remote origins.

The NCT goes beyond these «strict» approaches and recognizes the epistemological possibility to attribute a sort of apparent double origin to this root. It is evident that the stem *\*alb-* (*\*albh-*), in this «shape» and with the – then specialized – meaning of ‘water’, is a proto-Indo-European root. But proto-Indo-European is the common Indo-European before the differentiation of the same into the various Indo-European languages. As mentioned, it is possible to hypothesize linguistic contacts and exchanges between Indo-Europeans and Semites during the Indo-European movements (from East to West), between, therefore, the postulated pre-Proto-Indo-European and the (proto-)Semitic. It could be possible to try to reconstruct evidence of the linguistic interchange between the two language families in a really remote (prehistoric) age through some etymological facts linked to the *\*alb-* (*\*albh-*) root.

In the Semitic languages, two forms seem really interesting in this respect: the Sumerian<sup>20</sup> *halbia* and the (plausibly derived) Akkadian *halpium*, both meaning ‘spring, well, water mass, water hole’ (and used also in order to define the greyish/whitish color of flowing water). The reconstructed root of *halbia* and *halpium* is *\*hal-bh-*, with the same meaning of the proto-Indo-European *\*alb-* (*\*albh-*). The similarity between the two forms, semantically equivalent, is impressive. The common Indo-European has many roots able to express the notion of water (*\*akw-* generically ‘water’, *\*war-/ \*wer-* ‘flowing water [rivers, streams/ torrents], rainwater’, *\*und-/ \*wond-* ‘water of the sea, wave’, *\*mar-* ‘lagoon’ → Latin *mare* ‘sea’, and so on). The only stem «specialized» in defining the color of water seems to be *\*alb-* (*\*albh-*), really similar in the morphology and equivalent in the meaning to the Semitic root *\*hal-bh-*. It seems possible, therefore, to hypothesize that the «generic» *\*alb-* (*\*albh-*) stem is not only Indo-European and not only Semitic, but that it has been «known» by (pre-Proto-)Indo-Europeans during their remote movements towards their historical territories, borrowed from the (proto-)Semitic (or from some of the Semitic languages), added to the ordinary Indo-European lexicon, phonetically modified according to the (pre-Proto-)Indo-European system (the fall of the initial «aspiration», a common phenomenon), reused and refunctionalized in the same (pre-Proto-)Indo-European lexicon. This loan-word (or loan-root) became an integral part of the Indo-European system with the original Semitic meaning. The Indo-European (pre-Proto-Indo-European, proto-Indo-European, and Indo-European) speakers plausibly lost almost immediately (or they never had it) the awareness that this *\*alb-* (= *\*albh-* < Semitic *\*hal-bh-* → IE *\*albh-* = *\*alb-*) was a loan-

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<sup>20</sup> Sumerian is not considered as a properly called Semitic language. In the NCT’s pattern Sumerian is, instead, associated with Semitic languages (it is not relevant, according to the explained approach, if it may have been a really Semitic – or proto-Semitic – language, the only important data consist of the relationships of filiation and analogy of the Sumerian with other Semitic languages), especially to Akkadian (that shows common points with the same Sumerian).

word (or loan-root). It became – also phonetically – an integral part of the (common) Indo-European linguistic system.

It could be possible also to hypothesize a historical and linguistic *trait d'union* between Indo-European and Semitic related to the *\*alb-* (*\*albh-*) root in Hittite (an Indo-European language) and a possible place where, in remote times, the *\*alb-* (*\*albh-*) stem could be «passed» to the Indo-European system from the Semitic one. Indo-European did not lose the meaning of the root *\*hal-bh-* (*\*h<sub>a</sub>albh-*). On the contrary, it preserved this seme in different variants. The Hittite lexeme *alpa-s* ‘cloud’<sup>21</sup>, whose connection with the Indo-European *\*albhos* ‘white’ (formally possible in the hypothesis of an antecedent *\*h<sub>4</sub>albho-s*) was rejected for semantic reasons (since «[...] *alpa-* is predominantly associated with rain and thunder [...]»<sup>22</sup>), finds in the iconym ‘water’, instead, an unexceptionable etymology<sup>23</sup>. If we analyze, therefore, *\*h<sub>a</sub>albh-* as an «extending root» *\*h<sub>a</sub>al-bh-*, we can also recognize an equable of this in *\*h<sub>a</sub>al-eu-* ‘to wander disorderly’<sup>24</sup>, a root of hydronymic use that, in the appellative meaning, passed to indicate the «hydromel» (‘mead’) and the ‘beer’<sup>25</sup>. The Hittite can be, therefore, a late witness of the linguistic contact and exchange (maybe in Anatolia) between Indo-European and Semitic.

An onomastic analogy can be explained, therefore, through the hypothesis of linguistic contact and the notions of reuse and refunctionalization. It is possible to apply this methodology to many Semitic roots «analogous» to Indo-European stems. It could be also plausible to postulate a linguistic «transversal continuity» based on civilizations’ interchanges and intersections. Following this point of view, Indo-European and Semitic do not seem two completely separated entities and, interpreted through the NCT’s pattern, they can be studied also under the lens of the hermeneutic achievements by Paleolithic Continuity Theory. The theoretical hypothesis of possible remote (linguistically productive) contacts between pre-*proto-Indo-European* and (*proto-*)Semitic offers a new model to analyze the differentiations of linguistic families after the original spread of *Homo sapiens* from Africa, a model that is not «absolute», but that can give useful and versatile contributions (to be applied on a case-by-case basis) in order to reconstruct historical-linguistic developments and naming processes in Indo-European and Semitic areas.

About the dichotomy pre-Indo-European/ Indo-European, it is equally possible to study a large number of place names (a real not preordained system) going back with this methodology in time until their plausible origins. There is archaeological and paleo-anthropological evidence of the existence of a pre-Indo-European stratum, such as, for example, thousands of pregnant Venuses (prehistoric sculptures) found across all Europe by M.Gimbutas, witnesses of

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<sup>21</sup> This is not the only meaning that has been proposed. Melchert [2003: 281-288 and, especially, 285], suggests also ‘faintness, weakness’ (always, possibly, in relationship with the notion of ‘water’).

<sup>22</sup> Cf. [Kloekhorst 2008: 169, with bibliography].

<sup>23</sup> According to Prof. Dr. Guido Borghi, personal comment.

<sup>24</sup> Cf. [Borghi 2009: 836-837].

<sup>25</sup> Cf. [Pokorny 1959-1969: 33-34].

the presence of a strong matriarchal and presumably monotheistic society, in Europe, before the «arrival» of Indo-Europeans, bearers of a model of patriarchal society with a composite pantheon of gods. Some evidences could also be hypothesized through etymological reconstructions.

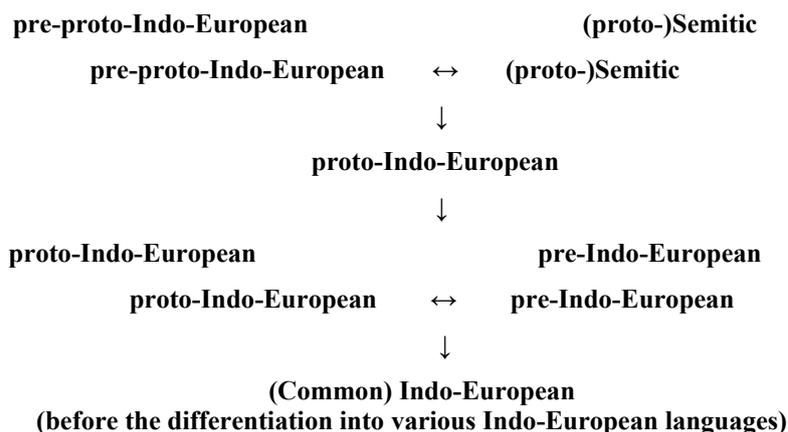
Studying, for example, the name of the *Bormida* river, flowing in the North-Western Italy (Lower Piemonte), it is immediately evident that it dates back to really remote origins. This ancient hydronym derives from the presumably pre-Indo-European root *\*borm-* (> *\*bormo*) that means ‘hot water(s)’. The analysis of the geo-morphology of the territory, in which the watercourse flows, could help to explain the name. Generally the waters of the river are cold, but the *Bormida* runs in an important area of sulfur and hot sulfur springs, the territory of the city of Acqui Terme (the Roman *Aquae Statiellae*, Lower Piemonte, currently located in the Alessandria’s Province), known and inhabited already in prehistoric ages and widely exploited by the Romans. In Acqui Terme there are many hot springs. The main one, the so called *Bollente* ‘Boiling Spring’, gushes out at a temperature of 75 Celsius degrees. Many other hot springs can be listed in the area surrounding the town, for example near villages of Visone and Grogardo.

It is possible to hypothesize that the *\*borm-* (> *\*bormo*) root dates back to pre-Indo-European times following a historical-phonetic interpretation. The Indo-European root for ‘hot’ is *\*g<sup>w</sup>hermó-*, *\*g<sup>w</sup>hormo-*, with a labiovelar, while the *Bormida* river name shows a bilabial, *\*borm-* (> *\*bormo*). Adding to this interpretation the analysis of the analogous place name *Bormio*, pertaining to a celebrated thermal (spa) locality (‘hot water[s]’), situated in Lombardia (Northern Italy), it is possible to postulate that this particular bilabial form could witness a former and older linguistic stratum (a «fossil» or a «relict/ relic»), perhaps describing a sort of specific «*\*borm-* area». Remaining at the level of hypotheses, it is plausible to suppose that the Indo-Europeans, «arriving» in their territories, «found» this pre-Indo-European root (perhaps generalized in onomastics, toponymy, and hydronymy) – probably they «found» already the ancestral name of the *Bormida* river – and they incorporated this root into their linguistic system, producing or adapting the labiovelar *exitus* from/ to the bilabial *exitus*, reusing and refunctionalizing a not Indo-European root *\*borm-* (then – or equivalent to – *\*g<sup>w</sup>hermó-*)<sup>26</sup>.

To summarize, the NCT postulates the possible «making» of Indo-European, before the differentiation of the same into various Indo-European languages, through two «epochal passages», the formation of a sort of proto-Indo-European after contacts between pre-Indo-European and (proto-)Semitic, and the «set up» of Indo-European before the differentiation into various Indo-European languages through contacts and exchanges of the common Indo-European (proto-Indo-European) with pre-Indo-European, with the overlap of the first on the second one, following this scheme:

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<sup>26</sup> Cf. [Perono Cacciafoco 2009: 15-24].



The scientific analysis of place names and hydronyms, generally very conservative, could be really useful, in this context. The man of stone needed primarily, in order to survive, to elaborate a sort of ideal map of his world. In the absence of writing, he had to organize an oral, intangible map, composed by names (phonic cross-reference marks), and the names he used were very close to his main needs, water, food, rock (caves to take a refuge or stones to get instruments), trees, animals. Places, ancestrally and/ or in prehistoric ages, at least in a large part of Europe, had probably really simple names. Moreover, they could have had the same names or very similar ones, not markedly differentiated except for categories, in order to distinguish different localities according to the indication of the main characteristics (in geo-morphology and in natural resources) of their respective territories. Such a remark can help when it is necessary to reconstruct the etymological origins of a non-immediately-transparent place name.

An example could be provided by the place name *Squaneto* (hamlet of the Spigno Monferrato village, located in North-Western Italy, Lower Piemonte, currently in the Alessandria's Province)<sup>27</sup>. It is, apparently, a non-transparent place name. A possible etymological restitution can reconstruct the place name in this way:

IE *\*skuto-h1yah2no-peih2tu-s* 'pasture of the flowers' trail' > Celt. *\*skutaanoetus* > Lat. *\*Scutanoetus* > dial. *Squanèi* = *Squaneto* = 'territory renowned for flowers'.

Another, complementary, reconstruction could be the following:

IE *\*skutah2/4* > Celt. *skutaa* > m. Irl. Scot. f. 'spike' (root *\*skeut-* 'to cut'), *\*h1yah2no-s* > Celt. *\*jaanos* > Irl. a:n 'noble' (root *\*h1yah2/4-* 'to go'), *\*peih2tu-s* > Celt. *\*eetus* > Irl. iath. 'territory, pasture' (root *\*peih2-* 'to feed') = *Squaneto* = 'pasture of the flowers' trail'<sup>28</sup>.

A possibly alternative reconstruction starts from a linguistic and anthropological evaluation. It should be necessary to consider that, over the millennia,

<sup>27</sup> Cf. [Perono Cacciafoco 2012: 83-106].

<sup>28</sup> Very effective reconstructions kindly provided by Prof. Dr. Guido Borghi.

speakers tend to lose the original meaning of a place name and tend also to add «casual parts» to that place name according to the «proximity» of the same name with other more «transparent» names or with the forms of the local (maybe new or «imported») dialect. Following this reasoning, it would be possible to try another interpretation, starting from (or arriving to) this hypothesized proto-form, *\*s-ak<sup>W</sup>a-n-eto*. The steps of this reconstruction are:

Squaneto = s - qua - n - eto = s-qua-n-eto

↓

Squa- = s - qua = s-qua < *\*s-* + *\*ak<sup>W</sup>a* = *\*sak<sup>W</sup>a*

↓

*\*sak<sup>W</sup>a*

↓

*\*s-* + *\*ak<sup>W</sup>a* = *\*sak<sup>W</sup>a-* → *\*sak<sup>W</sup>a-* → *\*sakua-* → *\*saqua-* → *\*s(a)qua-* → *\*squa-*

↓

*\*squa-* (< *\*s-* + *\*ak<sup>W</sup>-/ ak<sup>W</sup>a*) + *-n-* + *-eto* (< Lat. *-etum*) = *squa-n-eto* → Squaneto (< *\*s-ak<sup>W</sup>a-n-eto*)<sup>29</sup>.

The initial *\*s-* could be defined as a «formant» consonant, derived from the misunderstanding of the original meaning of the place name by speakers, in an attempt to link the same name to the local dialect. The *-n-* is a euphonic particle, useful to avoid the proximity of two vowels. The suffix *-eto* (< Latin *-etum*) is typical of many Italian place names. This reconstruction highlights the proto-Indo-European stem for ‘water’, *\*ak<sup>W</sup>-* (= Latin *aqua*, Italian *acqua*, French *eau*, Spanish *agua*), a really productive root not only in the field of general onomastics, but also in the ambit of toponymy. The first two reconstructions pertain to an eminently etymological level and do not take into account historical semantics applied to the analysis of the geo-morphology of the territory. Squaneto, in fact, is a ford on the Valla stream (torrent), tributary of the Bormida river that flows near to that locality. This ford was really important already in prehistoric ages, in order to allow the passage between two relevant areas of the Bormida Valley. The interpretation of Squaneto as a ‘water place’ (*vicus ad aquam*) could be probably in relationship to the above mentioned notion of an ideal, mental map. It seems that there are also additional evidences to support this reconstruction. Near to Squaneto, on the Valla stream (torrent), *Squagiato* is located, a place plausibly characterized by another ‘water name’. *Squagiato* could be an «imported» place name (< *\*s-ak<sup>W</sup>a-g-iato*, from *Squaneto* to *Squagiato*), confirming the strength of the *\*s-ak<sup>W</sup>a-* model. Not far from *Squaneto* and *Squagiato* there is a locality (in the village of Cartosio, the ancient *Caristum*) named *Saquana*, another ‘water place’ on the Erro stream (tor-

<sup>29</sup> Possible *ex-post* reconstructions descended from the Latin forms *\*subaquanetum* and/ or *\*exaquanetum*, presumably derived by analogy (*-aqua-* < *\*ak<sup>W</sup>-/ ak<sup>W</sup>a*): **a**) *\*subaquanetum* (= *\*subaquaneto*) → *\*subaquanetum* → *\*su(b)aquanetum* → *\*suaquanetum* → *\*s(u)aquanetum* → *\*saquanetum* → *\*s(a)quanetum* → *\*squanetum* (= *\*squaneto* = *Squaneto*); **b**) *\*exaquanetum* (= *\*exaquaneto*) → *\*exaquanetum* → *\*(e)xaquanetum* → *\*xaquanetum* → *\*csaquanetum* → *\*(c)saquanetum* → *\*saquanetum* → *\*s(a)quanetum* → *\*squanetum* (= *\*squaneto* = *Squaneto*).

rent), tributary of the Bormida river. The origins of the place name *Saquana* can be restituted in the same way, from *\*s-ak<sup>Wa</sup>-n-a*.

It is possible to reconstruct *Squagiato* as *Squaneto*, in a double way: the first, in an eminently etymological interpretation,

IE *\*skuto-h2ag'lo-h1yah2tu-s* 'pruning ford' > Celt. *skut[o]aglaatus* > Lat. *\*Scutaglatus* > dial.

*Squagiò* = *Squagiato*; *\*skutah2/4* > Celt. *skutaa* > m. Irl. Scotth. f. 'flower', verb *scothaid* 'to prune' (root *\*skeut-* 'to cut');

*\*h2ag'lah2/4* > Celt. *\*-aglaa* > Irl. a:l, suffix of name of action (root *\*h2ag'-* 'to lead'), *\*h1yah2tu-s* > Celt. *\*jaatus* > Irl. a:th 'ford' (root *\*h1yah2/4-* 'to go')<sup>30</sup>,

and the second, according to the NCT's pattern,

*\*s-* + *\*ak<sup>Wa</sup>* (Proto-IE 'water') = *\*sak<sup>Wa</sup>-* → *\*sak<sup>Wa</sup>-* → *\*sakua-* → *\*saqua-* → *\*s(a)qua-* →

*\*squa-* → *\*squa-* (< *\*s-* + *\*ak<sup>W</sup>-/ak<sup>Wa</sup>*) + *-g-* + *-iatio* (or + *-giatio*) = *squa-g-iatio* (or *squa-giatio*) → *Squagiato* (< *\*s-ak<sup>Wa</sup>-g-iatio*).

In this example, the second part of the first reconstruction can be accepted in the second reconstruction, because the suffix of the place name is surely younger than the root (like, presumably, in all place names) and, while the stem of the place name has necessarily to date back at least to the common Indo-European (or proto-Indo-European), the suffix can have been elaborated in a later (Celtic) age, showing also a really suitable meaning according to the geo-morphological characteristics of the territory.

It is possible to offer some other examples of this methodology, schematizing:

1) *Pareto* (place name, village located in North-Western Italy, Lower Piemonte, Alessandria's Province). The traditional reconstruction<sup>31</sup> goes back to a Latin tree name,

*Pareto* < *Peretus/ Piretus* < *piretus* 'pears plantation, pear trees place' < Lat. *pīrus*, It. *pero* 'pear' = *Paretus* (with dialectal change *-er-* → *-ar-*).

According to the NCT's pattern, the reconstruction could be the following,

*Pareto* = *Par-eto*. *Par-* < *\*br-/ \*bar-* 'rock, mountain, cliff' + *-eto* (< Lat. *-etum*) = *\*breto/ \*bar-eto* → *\*par-eto* = *Pareto* 'place located on a hill'<sup>32</sup>.

*Pareto* is a village situated on a hill dominating the surrounding territory. Precisely from this geo-morphological characteristic the place has its own name that does not derive, in fact, from a tree name, according to the apparent etymology, but from a reference to the altitude of the village, indicated through the root *\*br-/ \*bar-* that highlights the notion of 'rock, mountain, cliff, hill'. The toponymic reconstruction of the name *Pareto* evaluates the change of the initial

<sup>30</sup> Another admirable reconstruction kindly provided by Prof. Dr. Guido Borghi.

<sup>31</sup> Cf. [DTI 1999: 473-474, s. v. Pareto].

<sup>32</sup> Cf. [Perono Cacciafoco 2012: 83-106, Beretta 2003: 32, 43-45, 306].

sonorous occlusive bilabial, *b-*, to the voiceless occlusive bilabial *p-*. The change *b* ~ *p* caused, when – over time and after pre-Latin ages – the speakers and «naming subjects» lost the original meaning of the name, a «misunderstanding» about the possible derivation of the place name *Pareto* from a name of a tree (*Piretus* < *piretus* < *pīrus*). It is an easier, but erroneous interpretation based on the Latin form, and not on the reconstruction of the prehistoric/ pre-Latin stratum, with «closure» of *-a-* in *-i-*. The real origins of the name are linked to the altitude of the village and to the root *\*br-/ \*bar-*, expressing this characteristic of the territory.

The root *\*br-/ \*bar-* is also the stem of Latin *pārīēs* ‘rock face, wall’, also ‘rock’, that indirectly provides a confirmation inherent in the derivation of *Pareto* from the root *\*br-/ \*bar-*. Additional evidence derives from the comparison with other Italian place names like, for example, *Parétola*<sup>33</sup>, a hamlet of the Zeri municipality (Tuscany, Central Italy) and also a locality of the village of Licciana Nardi (Tuscany, Central Italy), place name derived from Latin *pārīēs* in the meaning of ‘soil or rock that falls sheer’, having its etymological prehistoric origins (pre-Latin, therefore) in the root *\*br-/ \*bar-* that always indicates the notion of ‘rock, mountain, cliff, hill’.

2) *Spigno [Monferrato]* (place name, village located in North-Western Italy, Lower Piemonte, Alessandria’s Province). The traditional reconstruction<sup>34</sup> is double:

- a) name derived from a Roman family name/ gentilitial = *Spigno* < *Spignus* (Medieval form) < *Spinius* (supposed Roman family name/ gentilitial);
- b) Latin tree name = *Spigno* < Lat. *spīnēus* ‘thorny’ < *spīnus* and *spīna* ‘thorn of a plant, thorny tree’ → *Spigno* = ‘thorny place’.

According to the NCT’s pattern, the reconstruction could be the following:

*Spigno* < (proto-)IE *\*agn-* (*\*ang-/ \*gn-*) ‘flowing water, river’  
*\*s-* + *-p-* + *\*agn-* (+ *-o*) → *\*s-p-agn-(-o)* → *\*spagno* → *\*spigno* = *Spigno*<sup>35</sup>,

with passage and «closure» – perhaps due to a dialect – of the central vowel of maximum opening, *a*, in the front closed not rounded vowel, *i*, passage that is also explained from the loss, by speakers and «naming subjects», over time, of the original meaning of the place name and with the «adaptation» to a most «verifiable» and understandable seme, linked to the concept expressed by *spīnēus*. Just like *Squaneto*, *Squagiato*, and *Saquana*, also *Spigno* could be interpreted as a *vicus ad aquam*, characterized by a (proto-)Indo-European «water place» name.

One of the traditional etymologies proposed for the restitution of the place name *Spigno* consists in a questionable derivation of the medieval form *Spignus* from a supposed Roman family name *Spinius*. It is a debatable interpretation, as many among the reconstructions descended from Roman (Latin) gentilitials.

<sup>33</sup> Cf., for example, [Pellegrini 2008: 194].

<sup>34</sup> Cf. [DTI 1999: 635, s. v. Spigno].

<sup>35</sup> Cf. [Perono Cacciafoco 2012: 83-106, Beretta 2003: 26, 37, 306].

Another traditional etymology would link the place name to the Latin adjective *spīnēus* ‘thorny’ or to the botanical terms (also Latin) *spīnus* and *spīna* ‘thorn of a plant, thorny tree’. The denomination *Spigno* would mean, therefore, ‘thorny place’. The NCT’s reconstruction provides, instead, pre-Latin ([proto-]Indo-European) origins, characterizing *Spigno* as a ‘water place’, a *vicus ad aquam* (as *Squaneto* and *Squagiato*, hamlets of *Spigno Monferrato*). The form and the name *Spigno* derive, following this interpretation, from a (proto-)Indo-European root *\*agn-* (*\*ang-/ \*gn-*) ‘flowing water, river’ (a «water stem»), preceded, as in the case of *Squaneto*, by a «prefix» *s-* with the insertion of a *-p-* (perhaps euphonic). From the root *\*agn-* (*\*ang-/ \*gn-*) derives the Latin word *amnis* (*\*agno* = *\*anno*) ‘river, stream/ torrent, watercourse’ (and also ‘flowing water, river current’), since the forms *\*agn-*, *\*ang-*, *\*am-*, and *\*an-* are equivalent between themselves and have the same meaning. *Agno* (< *\*agn-/ \*ang-/ \*gn-*), is, for example, the name of an Italian stream flowing currently in the Vicenza’s Province (Veneto, North-Eastern Italy), filtered by the aforementioned Latin word *amnis* ‘watercourse’ (a term that has no Romance developments except in toponymy), through the reconstructed form *\*amniu-*, deriving, in any case, from the prehistoric root *\*agn-/ \*ang-/ \*gn-*. From this stem descends, on the other hand, also the Italian word *stagno* ‘pond, mass of stagnant and swampy water, little extended and shallow’.

Further examples of hydronyms and toponyms reconstructable from this root are, in Italy, the name of the *Bisagno* river<sup>36</sup> and of the village *Bistagno*<sup>37</sup>.

### Conclusion

It is possible to state that the NCT could be interpreted as a new form of linguistic comparativism that tries to connect with each other remote onomastic origins of place names belonging to a vast prehistoric geographical area that sprawls between the Middle East and Europe, giving a contribution to the historical and historical-linguistic study of population movements and settlement dynamics pertaining to the Indo-European and pre-Indo-European areas and contexts, inaugurating a new hermeneutic and versatile pattern in historical linguistics.

The aim of this approach is to trace back the etymological reconstruction as much as possible in time, in order to try to recover – without prejudices and bias of any kind – the most ancient origins (or «proto-origins») of languages in pre-historic Europe.

In a not eminently diachronic key (because of the lack, at least partial, of historical and historical-linguistic documentation), the NCT’s methodology can be applied also to the general onomastics and toponomastics of non-Indo-

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<sup>36</sup> Watercourse (the length of which is about 30 km) that cuts in the longitudinal direction the city of Genova (Liguria, North-Western Italy) through the Valley from which it takes its name (Val Bisagno) and that flows into the Gulf of Genova (Foce District), in the center of the town.

<sup>37</sup> Currently in the Alessandria’s Province, Lower Piemonte, North-Western Italy, located at the confluence of the two «branches» of the Bormida river, the «Spigno branch» and the «Millesimo branch», another «water place», *vicus ad aquam*.

European linguistic contexts (Sino-Tibetan, Austronesian, and Papuan, for example), in particular to those of undocumented and endangered languages<sup>38</sup>.

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<sup>38</sup> It is one of the aims of the research project *Toponymy and Language Shift: Aspects of Language Change in South-East Asia*, currently conducted at the Nanyang Technological University (NTU), College of Humanities, Arts, and Social Sciences (COHASS), School of Humanities and Social Sciences (HSS), Division of Linguistics and Multilingual Studies (LMS) and School of Art, Design & Media (ADM), Singapore, by Assoc. Prof. Francesco Paolo Cavallaro, Asst. Prof. František Kratochvíl, Asst. Prof. Astrid Almkhlaafy, and Dr. Francesco Perono Cacciafoco, inherent in some partly undocumented and endangered languages of the South-Eastern Asian context (Timor area and Eastern Indonesia).

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