



**SIGNUM**  
INTERNATIONAL SOCIETY FOR MARK STUDIES

**SIGNUM MARK STUDIES CONFERENCE**  
October 18th & 19th, 2012: Stockholm, Sweden  
**CONFERENCE PROGRAM & ABSTRACTS**

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SVERIGES   
RIKSDAG 

Conference to be held at  
The Swedish Parliament

## About SIGNUM

SIGNUM is an international society established to advance the study of human marks and their use, and to support scholars and other specialists working in the emerging field of mark studies. Many members are active in academic disciplines such as anthropology, archaeology, and semiotics, while others work in the private sector researching and developing marks in the world of business.

## About The Conference

SIGNUM, The International Society for Mark Studies and partner institutions are pleased to announce the First International Conference on Mark Studies, to be held in Stockholm at the *Sveriges riksdag* (Parliament of Sweden), October 18th and 19th, 2012.

Presentations will explore the temporal depth and geographic breadth of the use of nonlinguistic marks, following the main conference themes described herein.

This initiative builds on the success of *Traditional Marking Systems: A Preliminary Survey* (London, 2010), a collection of 26 essays by leading researchers in the field of mark studies that led to the creation of SIGNUM.

## Why Mark Studies?

Marks are everywhere. On boundary stones they delineate borders and proclaim property ownership. In the form of seals they communicate identity and state authority. Hallmarks and trademarks denote quality and origin. Heraldic devices are used for military organization and to indicate family and clan affiliation. Corporate brand insignia are intended to evoke emotional and experiential associations to stimulate transactions. Currency symbols embody conceptual bases for distinguishing kind and instance in integrated systems of valuation. Mark studies is the comprehensive interdisciplinary field dealing with the array of lasting and visible nonlinguistic signs produced by humans – signs with a great deal of contemporary relevance.

## Current SIGNUM Membership

Gaybulla Babayarov – *Uzbekistan, Al-Biruni Institute of Oriental Studies*  
David Bade – *United States, University of Chicago*  
J. I. Barrera Maturana – *Spain, Laboratorio de Arqueología y Arquitectura de la Ciudad*  
Catherine Baroin – *France, Centre National de la Recherche Scientifique*  
Chandreyi Basu – *United States, St. Lawrence University*  
Napil Bazylkhan – *Kazakhstan, Central State Museum of Kazakhstan*  
Jean-Louis Van Belle – *Belgium, Centre International de Recherches Glyptographiques*  
Sir John Boardman – *United Kingdom, University of Oxford*  
Andrzej Buko – *Poland, University of Warsaw*  
Jane Caplan – *United Kingdom, University of Oxford*  
Alexey V. Chernetsov – *Russia, Russian Academy of Sciences*  
John Colarusso – *Canada, McMaster University*  
Yvonne Eriksson – *Sweden, Mälardalen University*  
Murtazali S. Gadjiev – *Russia, Russian Academy of Sciences*  
Imre Grafik – *Hungary, Budapest Museum of Ethnography*  
Paul Harthoorn – *The Netherlands, Nederlandse Genealogische Vereniging*  
Jangar Ilyasov – *Uzbekistan, Fine Arts Scientific Research Institute*  
Domenico Isabella – *Italy, Independent Researcher*  
Laszlo Z. Karvalics – *Hungary, Szeged University*  
William Kiesel – *United States, Independent Researcher*  
Juan Antonio Souto Lasala – *Spain, In Memoriam (1959 – 2011)*  
Richard Leslie – *United States, Independent Researcher*  
Louis Liebenberg – *South Africa, Cybertracker Conservation*  
Katina Lillios – *United States, University of Iowa*  
Nigel Love – *South Africa, University of Cape Town*  
Osman Mert – *Turkey, Atatürk University*  
Per Mollerup – *Australia, Swinburne University of Technology*  
Jeff Murray – *United States, University of Arkansas*  
Takashi Osawa – *Japan, Osaka University*  
Hasan Bülent Paksoy – *United States, Baker College*  
Oliver Timken Perrin – *United States, Independent Researcher*  
Joám Evans Pim – *Galiza, Academia Galega da Lingua Portuguesa*  
W. Gerard Poole – *United States, Society for the Study of Music, Ritual & Experience*  
Raúl Romero Medina – *Spain, Universidad Cardenal Herrera*  
Frank Salomon – *United States, University of Wisconsin*  
Melinda Simon – *Hungary, Szeged University*  
Tuve Skånberg – *Sweden, Sveriges riksdag*  
Kathrin Barbara Stutz – *Germany, Universität Konstanz*  
Mehmet Tezcan – *Turkey, Karadeniz Teknik Üniversitesi*  
Ian Thorne – *United States, Archemind Intelligent Artifice*  
Sergei Voroniatov – *Russia, The State Hermitage Museum*  
Sergey Yatsenko – *Russia, Russian State University for the Humanities*  
Anton C. Zeven – *The Netherlands, Wageningen Universiteit*



## October 18th (Day 1)

09:00 - 09:30	Conference Introduction – Tuve Skånberg
09:35 - 10:20	Keynote on Simplicity – Per Mollerup
10:25 - 11:10	Tamgas of Chach/Tokharistan – Babayarov & Kubatin
11:10 - 11:25	<b>Break</b>
11:25 - 12:10	Tamgas & Monograms – Manassero
12:15 - 13:00	Wappenmünzen – Tezcan & Akdogar
13:00 - 14:00	<b>Lunch</b>
14:05 - 14:50	Printer's & Publisher's Marks – Simon
14:55 - 15:40	Authentication Signs on Seals – Hunyadi
15:45 - 16:30	Lapidary Signs: Discourse on Method – Van Belle
16:30 - 16:45	<b>Break</b>
16:45 - 17:30	Lapidary Signs in Spain – Romero Medina
17:35 - 18:20	Engraved Plaques of Iberia – Lillios

## October 19th (Day 2)

09:00 - 09:45	Marks on a Mongolian Vessel – Osawa
09:50 - 10:35	The Sonic Mark – Poole
10:35 - 10:50	<b>Break</b>
10:50 - 11:35	Sustainable Branding – Perrin
11:40 - 12:25	Marks & Aggression – Evans Pim
12:25 - 14:25	<b>Lunch</b>
14:30 - 15:15	Metes & Bounds – Karvalics
15:20 - 16:05	Inaudible Invocation – Thorne
16:05 - 16:20	<b>Break</b>
16:20 - 18:30	Group Discussion: The Future of Signum

Note: Each presentation assumes a 30 minute presentation period followed by 15 minutes of questions and answers. For further details, see *Conference Location & Protocol*, and *Guidelines For Presenters*, below.

## Conference Themes

### 1. Marks, The Marked Environment & Human Behavior

How does the marked environment influence human behavior? How do individuals use marks to determine or organize their actions? What parallels exist between how humans use marks and how other animals use marks?

### 2. Marks Past, Present & Future

How can academic studies of traditional marking systems help us to understand contemporary social and commercial use of marks? How can the extensive body of research on marks used in the past be used to inform or improve how we use marks today?

### 3. The History Of 'Information Architecture'

How can we comprehensively approach the historical use of marks as tools to organize memory, experience, and information in both real and virtual space?

### 4. Tracking Marks

In pursuit of an integrated global database of marks past and present, how can we most effectively gather, organize, and make available the existing data in a coordinated effort?

### 5. The Recognized Mark

Can historical regulation of mark forms and marking behavior in various cultures provide context for mark use today? How and to whom was responsibility for oversight of mark forms and their deployment assigned within any given community?

### 6. A Question of Sustainability

Nonlinguistic marks play a critical role in organizing human behavior around the world. What vehicles exist or have existed for the regulation of commercial and institutional marks and their deployment? What advantages and disadvantages attend regulation in various contexts?

# Conference Abstracts

## Keynote: Simplicity

Per Mollerup

Complexity is part of the modern human context. The need for simple communication is massive. Clarity is the goal. Marks – whether for identification, description or instruction – play a considerable role in meeting this need. I will explore how marks can contribute to simplicity, as well as how they often increase complexity and introduce complications.

## Tamgas as a Source of Historical Data on Relations Between The Rulers of Chach and Tokharistan in the Pre-Islamic Period

Gaybullah Babayarov & Andrey Kubatin

As is known, tamgas at all times served as symbols of particular clan (or tribe) ownership for valuables, livestock and lands, or the involvement of a person or group of relatives in a certain action: in the course of performing ceremonies, in making various agreements including utterance of oaths, in religious ceremonies, and others. However, the tamgas engraved on coins were representative symbols of ruling dynasties and the states they had founded, and were associated both with the territory in which they ruled, as well as with their origin (ethnicity). In this regard, of particular interest are tamgas appearing on the Early Medieval coins of Chach (Tashkent) and Tokharistan (Southern Uzbekistan, Southern Tadjikistan, and Northern Afghanistan).

Thus, we focus upon the coins minted in Chach in the early Middle Ages. Among the first scholars to link some of the coins of Chach with the Old Turks was O.I. Smirnova, but she did not include their coinage in the Western Turkic Qaghanate. In turn, L.S. Baratova, supporting the opinion of O.I. Smirnova (mainly based on iconography) also linked the issue of several Pre-Islamic Central Asian coins with the Old Turks, who ruled in the area of this oasis in the region. In contrast, E.V. Rtveladze examined different types of coins from Chach with a lyre-shaped tamga, and grouped them together, pointing out the names of Tuun and Sheguy, and tied their minting with the coinage of Western Turkic rulers Shegui Khan and Tung Yabghu-Khan.

The result of our research on the Early Medieval numismatics of the Chach oasis was identification of several types of coins, which based on the titles reflected in their coin legends and iconography, as well as tamgas, were attributed by us to the local coin minting of the Western Turkic Qaghanate.

## Tamgas and Monograms: On The Border Between Alphabetical and Figurative Marks Among Ancient Iranian Peoples

Niccolò Manassero

Lying in a border-line zone between writing, accounting and drawing, tamgas stimulate debate especially among linguists and semiologists. In the domain of archaeology, however, debate on the methodological approach to the study of tamgas is still in its infancy, and several archaeological publications are still affected by inconsistencies and mistaken views regarding the origins and functions of such marks.

For example, labeling the same identity and ownership marks indistinctly as “tamgas” or “monograms” seems to be a common habit in archaeological publications: scholarly literature – especially that devoted to the Sassanian period – often uses both terms for identical devices. Such lexical confusion reveals the fuzzy conceptions current among many historians and archaeologists regarding the nature and function of tamgas. As far as I know, the only work aiming at reading Sassanian ‘monograms’ was undertaken by S. Adhami in 2003, after several decades of such superficial labeling; however, his effort remained unique in the field of Iranian studies.

I will provide an overview of the equivocal examples in the actual scholarly debate as regards the definition of many Iranian devices, shown mostly on coins and seals. A crucial period of change and development that may help in discussing the topic is Hellenism, when Iranian tamgas and Greek monograms met and gave rise to new perspectives and, arguably, new uses for such marks. The encounter of the literate Greek civilization with Iranian tribes, often nomadic and illiterate, offers a stimulating case study as regards the supposed relation of tamgas with writing. From this chronological starting point, the paper will provide a discussion of significant samples of ambiguous marks – that are alternatively called “tamgas” and “monograms” in literature – through the following Parthian and Sassanian periods.

I will discuss if and how alphabetical letters of the Iranian languages might be deciphered in those marks, or whether their nature should be seen as different, as non-alphabetical. I will also investigate how Greek monograms that may be seen on late-Classical coinage onwards might influence the use of tamgas among Iranian peoples in the Hellenistic age, and vice-versa. In doing so, the paper will obviously touch upon challenging topics in the current debate on marks, namely the relation of tamgas with logograms and letters – broadly speaking with writing – and in its turn will show how archaeological data can contribute to the debate developed by linguists and semiologists about the nature and functions of tamgas.

In sum, I will discuss many aspects of the relation of tamgas with writing, in the Iranian lands and Central Asia, over approximately a millennium, from Hellenism until the Sassanian period (4th cent. BCE - 7th cent. CE).



## Wappenmünzen: Coins of the Cities of Asia Minor in the Archaic and the Classical Periods

Mehmet Tezcan & Hatice Tugba Akdogar

Coins are obviously an important resource for mark studies; their critical value as a source of historical information is well established. Ancient coins often bear mint marks, monograms, tamgas, and/or more or less schematized iconographic elements that can be associated with a particular ancient polis or city. This is clearly the case for a number of specific cities. In the field of numismatics these coins have been called *Wappenmünzen* or “heraldic coins” because they bear a distinct emblem associated with a place.

In a broadly historical context we explore the meaning of the nonlinguistic figurative elements or “heraldry” on the coins of some cities of Anatolia in the archaic and classical periods. Our findings are based on extensive research, using coin catalogues in order to determine whether the emblems on these coins reflect any known characteristics of the places they signify. Based on additional evidence provided by surviving Greek texts it is possible to show with certainty that some of the symbols struck on coins of this type can be related to specific places, based on the features or characteristics for which those places were known. Examples include Side (pomegranate), Phokaia (the Mediterranean monk seal of the family *Phocidae*), and Astakos (lobster).

On one hand such emblems arguably represent a known feature of the place, but they also correspond directly to the names of the places as spoken or written (viz. *side*, a word of Anatolian origin that means “pomegranate”; Gk. *phoca*, meaning “seal”; Gk. *astakos*, “lobster”). Coins of the *Wappenmünzen* type are therefore of great interest for the light they shed on the historical intersection of linguistic and nonlinguistic signification elements in the indication of identity and place – not least because multivalent marks of this kind, appearing on currency, could be recognized with consistency across linguistic and cultural borders.

## Printers' Marks: Publishers' Devices as a Sign of Legal Continuity

Melinda Simon

As my current research focuses on printers' and publishers' marks, I will discuss the use of publishers' devices as signs of legal continuity.

In cases in which the owner of a publishing house has died or has sold the business, the new proprietor usually attempts to keep the old publisher's mark to let the public know that the high standards of the firm have not changed at all. Usually, the only difference between the old and the new design is the featured monogram.

Sometimes even when the seat of the business has changed the slightly altered publishers' marks have always played an important role in preserving the treasured customer base of the firm.

I will provide examples – mainly from the 19th and 20th centuries – from all over Europe. I will also examine the psychological background of this phenomenon.

## Authentication Signs On Medieval Seals

Zsolt Hunyadi

Seals played a determinant role in the authentication of medieval documents. In addition to chirographs, notarial signs, witness lists, and signatures, the seals were intended to establish the authenticity of the documents in question as an attached, appended or impressed feature. In addition to their authenticating function they also identified either the author/executor of the documents (as well as indicating rank and/or title) or the individual endorsing or authenticating them.

Most of the features of these authenticating tools were non-verbal, since the majority of the society that utilized them was more or less illiterate. The 1) form (round-shape, vesica-shaped, polygonal), 2) the color (natural, colored, red), 3) the material (wax, lead), 4) and the suspension material (silk, hemp-thread, skin) of the matrices all helped to identify the function or role, and the social rank, of the owner of the seal.

Since making forgeries is almost strictly contemporaneous with the production of charters, the authorized goldsmith at times placed authentication signs on the seals (typarium), or the sealer (sigillator) used counter seals either on the front side or on the reverse of the wax seal. The paper enumerates European examples from the twelfth through the fifteenth centuries and attempts to show that despite the basic common features there were numerous local solutions that were fully incorporated into the regional legal traditions and texts.

## The Study of Lapidary Signs: A Discourse on Method

Jean-Louis Van Belle

The analysis of lapidary signs found in certain constructions can provide, in favorable circumstances, a precise approach to the methodological discourse that enables understanding of these constructions. This is certainly the case as regards buildings of the 16th -18th centuries in Belgium where Hainaut granite stones were used, often featuring stone quarry or owner's marks.

The study of these signs can reveal a wealth of detail: the time and place where stones were extracted; the name of the quarry owner; the degree of literacy of the average owner; the use of signs assisting assembly (position, location and order) that reveal the preparatory logic of construction techniques; the organization of the trade (seat height signs), and; relations to geology (width of stone walls). The examination of these signs in the construction can also reveal the extent to which the initial plans were actually followed or not (according to the position and location signs), the alterations and changes, the various work campaigns, the quarry fracture points, the associations between quarry owners that provided stone, and marks that provide clues to the importance and size of the companies that the quarry owners controlled. The abundance of different identity marks may reveal the importance of the assignments or the small size of the companies that provided stone, or show the degree of availability of financial resources that were mobilized by the construction sponsors.

In such a way, glyptographic analysis of existing quarry or assembly signs within the geographical context can shed light on the history of a given construction, from the moment it was designed to its completion, providing insights related to its historical and sociological context.

## Lapidary Signs in Spain: The State of The Question

Raúl Romero Medina

One can frequently find lapidary signs, with or without apparent meaning, appearing on the stones of churches and monasteries, sometimes mixed with the marks of stonecutters. Many of these signs are unique in each church (generally there is only one signature that is not repeated in the entire construction) which makes it difficult for us to find a meaning; this is the case for the most complex and strange examples of these marks. It is also common to find other marks appearing on the stone that are completely different from those of the stonecutters. Apparently these are signs or traces left by visitors to the location in the course of their travel, or by the pilgrims on their way. They seem to have no practical meaning. Moreover, there will always remain with us some doubt regarding whether the stones that bear these signatures are original to the architectural complex or whether they were re-used in the project of a different construction.

This paper examines the lapidary signs or masons' marks of Spain during the 13th through the 16th centuries. The masons' marks of interest in this study are the signs incised as part of the building process. Three general categories emerge: construction marks, used in laying and positioning the stone; accounting marks, employed in tabulating, verifying, monitoring, and evaluating the work of the building, and finally; identity marks, used primarily to identify an individual, even if they served simultaneously to verify and quantify an amount of work accomplished.

## Marks, Art, or Writing? The Engraved Plaques of Neolithic Iberia

Katina Lillios

For over one hundred years, archaeologists have been captivated by the exquisite artistry of the engraved stone plaques of Neolithic Iberia. Found in hundreds of burials in southern Portugal and Spain, the plaques, most often made on slate, have been interpreted as representations of the European Mother Goddess. Systematic analyses of their form, design, and context suggest, however, an alternative explanation. My paper will explore the iconography and the spatial patterning of the plaques and suggest that they functioned as durable mnemonics recording the genealogies of important individuals. I discuss the implications of such an interpretation to our understanding of identity, art, memory, and social life in Neolithic Iberia and in the 'prehistoric' world, in general.

## The Relationship Between Tamga Signs and Old Turkic Runic Epitaphs on a Silver Vessel Discovered Recently in Mongolia

Takashi Osawa

As is known, in the Old Turkic period nomad peoples had a custom of marking their domestic animals with tamgas. But in other cases, we know they also used seals on stelae or contract papers as an indicator of the identity of the authors or writers, as I discussed in my paper in *Traditional Marking Systems*. Now they are also known in epitaphs on engraved vessels from the tombs or the burial places of the Old Turkic period from the ca. 6th-9th CE in Mongolia and Southern Siberia.

Fortunately our international joint research team discovered a silver vessel from a tomb in central Mongolia in the summer of 2009. I was able to translate the ca. 32 letters comprising the runic text, and two or three tamga-signs on the base. And from this I could read the word *enlig*, a very important term that has until now eluded inquiry into its original form and meaning. In my presentation, I try to uncover the meaning of the original term and the functional relationship of the tamga-signs on the bottom of the silver vessel. My new supposition can shed light on unresolved issues related to the function and the significance of tamga-seals and the social relationships they commemorated through the comparative analysis of the tamga-signs in use among the Old Turkic, Uighur and Kirghiz peoples.

## The Sonic Mark: Pilgrimage, Procession, Territory, and Structuring of Individual and Collective Identity

W. Gerard Poole

My aim is to explore the relationship between acts of lasting and visible marking (boundary and property marks, tamgas, seals, etc.), and marking through behavior with a sonic concomitant (processions, parades, pilgrimages, etc.). Both aspects are presented as symmetrical processes, as reflected in the shared etymological roots of the terms “marking”, “marching” and “march” (the last in the substantive sense of a territory designation corresponding to “frontier” or “border”). I attempt to show a direct link between the structuring and penetration of topographic boundaries – or to use Van Gennepe’s term, *limens* – and the marking, as well as the structuring and penetration of subjective boundaries of the self.

The phenomena associated with marching (steps in time or meter, collective singing, marking and/or ritually recognizing or reinforcing signs at waypoints, etc.) generate emotional states central to experience of identity, expression of intention, and integration of behavior; they are mirrored in the spectrum of emotional modalities or states associated with other social processions from funerals to marriages and ecstatic religious expressions. Visceral reactions to emblems such as the swastika, the hammer and sickle, or the Christian cross find a parallel in the focus and structuring of a spectrum of emotional states through rhythmic integration, singing, procession and other behavior.

Further examples including the songlines of the Australian Aboriginals and the songs of the Catholic Rocieros of southern Spain, which provide illustrations of how a topography can be marked sonically to serve as an ‘internal map’ for the navigation of an outward terrain, as well as a sonic map, or soundscape, for the cultivation of an internal emotional self. Pilgrims emotionalize (and memorize) the landscape of the pilgrimage route through songs that structure their internal experiences in relationship to those landscapes. I will also consider the *vèvé* of Haitian and African Vodoun in the context of visible marks associated with sonically structured ritual experiences.

Finally, it will be argued that the mythological relationship between the Dionysian and the militant, the ecstatic and the bellicose, reveals a symmetrical process that operates within two realms, critical elements of a single ritual process: the structuring, confrontation, and penetration of exterior and interior boundaries through visible and sonic marking. The visible sign marks the boundaries of those states that have been achieved, and simultaneously indicates unknown states yet to be achieved. Sonic marks, on the other hand, are in a sense the emotional vehicles themselves, communicating the presence of a particular emotional state.

## Sustainable Branding: Minimizing Uncertainty In Mark Predication

Oliver Timken Perrin

For many species, marks serve to orient a given animal regarding its intraspecific social relationships or hierarchy, its territory or home range, its mating or nesting sites, and the disposition of resources that surround it. For humans, brand insignia serve similar functions: they can create subjective impressions of belonging or alienation, they warn or trigger avoidance, they can be used to establish hierarchy and to stimulate competitive or cooperative effort, or even aggression and organized violence. Marks serve as ‘statements’ about the environment in which they are found, or the object on which they are placed. Marked surfaces (e.g. land or territorial features, food caches, nesting or mating sites, livestock and prisoners, goods or products, buildings and non-building structures, etc.) are made subject through the application of a mark, itself serving as a predicate that identifies them, thereby integrating behavior, both immediately and at a distance in time and/or space. It is in this sense that the term “predication” is used here.

The marks made and responded to by non-human animals tend to be relatively unambiguous. It is precisely here that these marks show survival value: they are to a certain extent reliable indicators of fact. They can indicate identity, and by extension kind and instance, as well as the actual and potential relationships of objects and entities in space and time. The marks in conscious use among humans on the other hand, which are primarily visible, can be charged with far more ambiguity than those in use among other animals (e.g. macroscopic mammals). Despite abundant evidence in human culture of efforts to minimize uncertainty in mark predication, mankind has displayed great ingenuity in intentionally introducing it in order to gain advantages in various ways. This is particularly pronounced in the case of commercial marks.

Drawing on a wide range of published historical sources, cultural anthropology, ethology, comparative psychology, and jurisprudence – as well as professional observations made in the course of ongoing commercial brand development work, I suggest that brand claims that are incompatible with individual experience can foster uncertainty in mark predication – an uncertainty that is both widespread and influential as regards the broader non-commercial marked environment and the integration of human behavior within it.

## Marks and Control of Aggression

Joám Evans Pim

Symbolic behavior is certainly one of the key aspects in the configuration of human evolution. This paper explores the emergence of human marks within the framework of evolutionary ritualized restraint mechanisms that minimize the occurrence of potentially lethal intraspecific aggression. The relation between avoidance and boundary definition strategies – which reduce the expenditure of energy and risk of injury – and the use of non-linguistic signs that require ‘reading’ and ‘writing’ skills is considered both in human and nonhuman animals, taking into account ethological and ethnographic evidence, in the light of natural selection pressures that favor nonkilling behavior. The study is intended to provide a broad perspective using examples and data drawn from human marking practices from one specific area taken as a case study – specifically NW Iberia/Galicia – from as early as the Neolithic up to the present. The combined archaeological and anthropological data from across this large span of time reinforces the evident importance of marks in the avoidance of direct confrontation for millennia, possibly prefiguring some of the initial functions of linguistic writing systems.

## Metes and Bounds As Semiotic Objects: Towards a Multi-Dimensional Typology

Laszlo Z. Karvalics

The most important elements of early information architecture environments were (1) the decoration/ornamentation of articles for personal use, (2) temporary and permanent signs and symbols on the human body, (3) maps and proto-maps, (4) public calendar and time measurement solutions, (5) pictographic representations (mainly in caves), (6) numeric representations, (7) astronomical records, (8) marked graves and, finally, (9) metes and bounds, a field which has not received sufficient attention as a target of substantive, independent research; the majority of data is scattered through numerous publications dealing with other topics.

However, only time and effort are necessary to compose an international online database, containing every single object in the extended family of metes and bounds. Gathering data from anthropological, ethnological, and historical works, local historical records and artifacts, digital heritage collections and other sources, and using standardized records (pictures and descriptions with the same metadata structure), it will become possible to identify, classify, compare and analyze the ‘metes and bounds assets’ of mankind.

Before constructing a more detailed typology we define five essential ‘dimensions’: the semiotic nature of the objects; the raw material of the sign carrier including size, form and color; the abstract function of the sign; the concrete function of the sign (domain), and; the size and nature of the part of space distinguished or delimited by the object.

Testing a possible methodology within a professional community we propose a preliminary version for the first and third dimensions listed above, in an attempt to isolate the varying semiotic nature of the objects, building a kind of ‘semiotic ladder’. In the course of the presentation we will illustrate the categories with well-known examples. The presentation will include consideration of object signs (the sign itself is the object without markings); mark signs (the sign is an intentionally formed mark); verbal or linguistic signs, and; hybrids. Additional attention will be focused on the function of the sign in an abstract sense (e.g. warning, integration of collective behavior, regulation of collective use of space, etc.).

There are many other important contexts in which metes and bounds can be considered. The function of this preliminary examination is simply to generate further discourses.

## Inaudible Invocation: Neurolinguistic Topology and the Non-phonetic Mark

Ian Thorne

Ongoing advancements in brain imaging and computational modeling present the social sciences with abundant opportunities to reassess old theories in light of new evidence. In this paper we examine several strategies for applying these advancements to the study of non-phonetic marks. Unlike established subfields of linguistics such as phonology, in which the paths to interdisciplinary collaboration are readily apparent, the discourse domains concerned with non-phonetic marks are less clearly demarcated. As with other emerging cognitive sciences, we take such boundary ambiguity as a productive opening for interrogation.

At the physiological level, we assess the applicability of data culled from the study of phonological speech, audition, and orthography. At the semiological level, we survey the structural constraints shared by non-phonetic marking with co-expressive gesture and instrumental manipulation. At the sociological level, we expose several problematics that arise from the codification of marks, such as the appropriation of cultural commons for commercial exploitation, or the colonization of symbolic space by copyright. Lastly, at the ideological level, we ask how a generalized ‘iggraphicacy’ facilitates political misappropriation of marks, and how a greater fluency in the neurolinguistics of marks can bolster the critique of ideology.



## Conference Location & Protocol

The conference will be held inside the Swedish parliament (*Sveriges riksdag*). Please meet us at the parliament building at the entrance at Riksdagen, Riksgatan 2 at 8:30 am on October 18th. This entrance is located between the two large buildings of the parliament (*Riksdagen*). We will meet attendees there and guide them to the conference room (Riksdagen Östra, 2nd Floor, Room 8). Due to security concerns associated with the venue, please bring individual identification (Passport, National Driver's License or National ID Card).

## Guidelines For Presenters

Presentations are strictly limited to 30 minutes. A 15 minute allocation for questions and answers will follow each presentation. Presenters are invited to use supporting PowerPoint presentations, which will be saved in the main computer before the conference opening on Day 1. Please bring any digital presentations on a USB drive or CD/DVD ROM for easy transfer. *If you wish to bring your own laptop for presentation, make sure you bring adaptors to make it possible to connect it to our projection system.* Presenters are welcome to produce hand-outs, but these must be printed by the authors beforehand. No printing facilities will be available at the venue. We suggest producing 25 copies of any hand-outs used.

## Contact

For enquiries regarding conference details or any questions you might have, please feel free to contact the conference organizers:

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