

Anejos de Veleia

Series Minor 39

NOEMÍ MONCUNILL MARTÍ
MANUEL RAMÍREZ-SÁNCHEZ
(EDS.)

Aprender la escritura, olvidar la escritura

Nuevas perspectivas sobre
la historia de la escritura
en el Occidente romano

eman ta zabal zazu



Universidad
del País Vasco

Euskal Herriko
Unibertsitatea

ANEJOS DE VELEIA

SERIES MAIOR (27 × 20,5 cm.)

1. *Symbolae Ludovico Mitzelena septuagenario oblatae*, ed. JOSÉ L. MELENA, 1985. 2 vols. [edición en tela y en cartón].
2. M.^a CRUZ GONZÁLEZ, *Las unidades organizativas indígenas del área indoeuropea de Hispania*, 1986.
3. PILAR CIPRÉS, *Terra sigillata hispánica de Arcaya (Alava). Estudio de las formas lisas y decoradas*, 1987.
4. JOSÉ M.^a EGEA, *Gramática de la Crónica de Morea*, 1988.
5. M.^a DOLORES DOPICO, *La Tabula Lougeiorum. Estudios sobre la implantación romana en Hispania*, 1988.
6. A. SÁENZ DE BURUAGA, *El paleolítico superior de la cueva de Gatzarria (Zuberoa, País Vasco)*, 1991.
7. VITALINO VALCÁRCCEL, *Sancti Braulionis, Episcopi Caesaraugustani, epistularum concordantia et index formarum a tergo ordinatarum*, 1991.
8. HELENA GIMENO y ARMIN U. STYLOW. *Juan Pérez Holguín y la epigrafía trujillana*, 1994.
9. ALFONSO ALDAY RUIZ, *El entramado campaniforme en el País Vasco: los datos y el desarrollo del proceso histórico*, 1996.
10. IGNACIO BARANDIARÁN y ANA CAVA, *Cazadores - recolectores en el Pirineo Navarro: El sitio de Aizpea entre 8000 y 6000 antes de ahora*, 2001.
11. JOAQUÍN GORROCHATEGUI y PATRIZIA DE BERNARDO STEMPEL (eds.), *Die Kelten und ihre Religion im Spiegel der epigraphischen Quellen - Los Celtas y su Religión a través de la epigrafía*, 2004.
12. KOLDO LARRAÑAGA, *El hecho colonial romano en el área circumpirenaica occidental*, 2007.
13. IGNACIO BARANDIARÁN, ANA CAVA y MIKEL AGUIRRE, *El taller de sílex de Mugarduia sur. Una ocupación de Urbasa (Navarra) durante el Gravetiense*, 2013.

SERIES MINOR (24 × 17 cm.)

1. MILAGROS QUIJADA, *La composición de la tragedia tardía de Eurípides. Ifigenia entre los Tauros, Helena y Orestes*, 1991.
2. P. BADENAS, J. M.^a EGEA y J. A. OCHOA (eds.), *Oriente y Occidente en la Edad Media. Influjos bizantinos en la Cultura Occidental (VIII Jornadas sobre Bizancio)*, 1993.
3. PILAR CIPRÉS, *Guerra y sociedad en la Hispania Indoeuropea*, 1993.
4. IÑIGO RUIZ ARZALLUZ, *El hexámetro de Petrarca*, 1993.
5. ROSA MENTXAKA, *El senado municipal en la Bética Hispana a la luz de la Lex Imitana*, 1993.
6. ANTONIO DUPLÁ y A. EMBORUJO (eds.), *Estudios sobre historia antigua y la historiografía moderna*, 1994.
7. M.^a T. MUÑOZ GARCÍA DE ITURROSPE, *Tradición formular y literaria en los epitafios latinos de la Hispania cristiana*, 1995.
8. JESÚS BARTOLOMÉ GÓMEZ, *Los relatos bélicos en la obra de Tito Livio*, 1995.
9. PILAR RODRÍGUEZ, *Gens: una forma de agrupación antigua mal conocida*, 1996.
10. M.^a CRUZ GONZÁLEZ, *Los astures y los cántabros vadinienses. Problemas y perspectivas de análisis de las sociedades indígenas de la Hispania indoeuropea*, 1997 [2006, 2.^a ed.]
11. ALBERTO QUINTANILLA, *Estudios de fonología ibérica*, 1997.
12. GUADALUPE LOPETEGUI, *Estudio lingüístico de la documentación latina de la Cancillería de Sancho VI de Navarra*, 1999.
13. M.^a ISABEL PANOSA, *La escritura ibérica en Cataluña y su contexto socioeconómico (siglos V-I a.C.)*, 1999.
14. VALERIANO YARZA URKIOLA, *Potamio de Lisboa: Estudio, edición crítica y traducción de sus obras*, 1999.
15. ESTÉBALIZ ORTIZ DE URBINA, *Las comunidades hispanas y el derecho latino. Observaciones sobre los procesos de integración local en la práctica político-administrativa al modo romano*, 2000.
16. CARLOS GARCÍA CASTILLERO, *La formación del tema de presente osco-umbro*, 2000.
17. M.^a JOSÉ GARCÍA SOLER (ed.), *TIMHΞ XAPIN. Homenaje al prof. Pedro A. Gainzarain*, 2002.
18. ENRIQUE GARCÍA RIAZA, *Celtiberos y lusitanos frente a Roma: diplomacia y derecho de guerra*, 2002.
19. JUAN L. GARCÍA ALONSO, *La Península Ibérica en la Geografía de Claudio Ptolomeo*, 2003.
20. JOSÉ IGNACIO SAN VICENTE, *Moneda y propaganda política: de Diocleciano a Constantino*, 2002.
21. IGNACIO BARANDIARÁN, *Grupos homoespecíficos en el imaginario mobiliario magdalenense. Retratos de familia y cuadros de género*, 2003.
22. JESÚS RODRÍGUEZ RAMOS, *Análisis de epigrafía ibera*, 2004.
23. JOSÉ M.^a VALLEJO RUIZ, *Antroponimia indígena de la Lusitania Romana*, 2005.
24. JOSÉ ÁNGEL TAMAYO ERRAZQUIN, Libertis Libertabusque. *El fideicomiso de alimentos en beneficio de libertos en Digesta y Responsa de Q. Cervidius Scaevola*, 2007.
25. ELENA MACUA MARTÍNEZ, *Técnicas de caracterización en Menandro (Samia, Perikeiromene y Epitepontos)*, 2008.
26. VITALINO VALCÁRCCEL MARTÍNEZ (ed.), *Las biografías griega y latina como género literario: De la Antigüedad al Renacimiento. Algunas calas*, 2009.
27. ESTEBAN MORENO RESANO, *La política legislativa de los sucesores de Constantino sobre los cultos tradicionales. Constantino II, Constante, Constancio II (337-361)*, 2010.
28. JAVIER MORALES, *El armamento y la táctica militar de los galos. Fuentes literarias, iconográficas y arqueológicas*, 2011.
29. ÓSCAR NÚÑEZ GARCÍA, *Prisciliano, priscilianismos y competencia religiosa en la antigüedad*, 2011.
30. ALEJANDRO MARTÍNEZ SOBRINO, *Estudio y edición crítica de los comentarios de Iodocus Badius Ascensius al poeta satírico Persio*, 2013.
31. ENARA SAN JUAN MANSO, *El Commentum Monacense a las comedias de Terencio (München, BSB, Clm 14420, ff. 79-144)* 2015.
32. IÑIGO RUIZ ARZALLUZ (coord.), ALEJANDRO MARTÍNEZ SOBRINO, M.^a TERESA MUÑOZ GARCÍA DE ITURROSPE, IÑAKI ORTIGOSA EGIRAUN y ENARA SAN JUAN MANSO (eds.), *Estudios de filología e historia en honor del profesor Vitalino Valcárcel*, 2014.
33. ELENA REDONDO-MOYANO y MARÍA JOSÉ GARCÍA SOLER (eds.), *Nuevas interpretaciones del Mundo Antiguo. Papers in Honor of Professor José Luis Melena on the Occasion of his Retirement*, 2016.
34. ENRIQUE HERNÁNDEZ PRIETO, *Hispania y los tratados romano-púnicos*, 2017.
35. JOSÉ M. VALLEJO, IVÁN IGARTUA, CARLOS GARCÍA CASTILLERO (eds.), *Studia Philologica et Diachronica in Honorem Joaquín Gorrochategui*. Indoeuropaea et Palaeohispanica, 2018.
36. M.^a CRUZ GONZÁLEZ-RODRÍGUEZ, PILAR CIPRÉS, ESTÉBALIZ ORTIZ-DE-URBINA y GONZALO CRUZ-ANDREOTTI (eds.), *A Verbis ad Scripta. Studia epigraphica et historica*. Homenaje a Juan Santos Yanguas, 2019.
37. JAVIER HERRERA RANDO, *Cultura epigráfica y romanización en la Hispania meridional. La epigrafía pública entre la República y el Imperio*, 2020.
38. ELENA TORREGARAY PAGOLA y JOKIN LANZ BETELU (eds.), *Algunas sombras en la diplomacia romana*, 2020.
39. NOEMÍ MONCUNILL MARTÍ y MANUEL RAMÍREZ-SÁNCHEZ (eds.), *Aprender la escritura, olvidar la escritura*, 2021.

APRENDER LA ESCRITURA,
OLVIDAR LA ESCRITURA

Nuevas perspectivas sobre la historia de la escritura
en el Occidente romano

VELEIA

REVISTA DE PREHISTORIA, HISTORIA ANTIGUA, ARQUEOLOGÍA
Y FILOLOGÍA CLÁSICAS

ANEJOS SERIES MINOR 39

Idazkaritza / Consejo de Redacción / Board

Maurizio CAMPANELLI (*Università di Roma – La Sapienza, Italia*) –

Jonathan EDMONDSON (*University of York, Canadá*) –

Carlos GARCÍA CASTILLERO (*UPV/EHU*) –

M.^a José GARCÍA SOLER (*UPV/EHU*) –

M.^a José IRIARTE CHIAPUSO (*UPV/EHU*) –

Guadalupe LOPETEGI SENPERENA (*UPV/EHU*) –

Esperanza OSABA GARCÍA (*UPV/EHU*)

Zuzendaria / Directora / Editora

PILAR CIPRÉS TORRES

Saileko zuzendariak/Directores de Sección/Section Directors

M.^a J. GARCÍA SOLER – A. MARTÍNEZ SOBRINO – E. TORREGARAY



Torso *thoracatus* hallado en
Iruña, Álava, la
antigua
Veleia

NOEMÍ MONCUNILL MARTÍ
MANUEL RAMÍREZ-SÁNCHEZ
(eds.)

APRENDER LA ESCRITURA, OLVIDAR LA ESCRITURA

Nuevas perspectivas sobre la historia de la escritura
en el Occidente romano

eman ta zabal zazu



Universidad del País Vasco Euskal Herriko Unibertsitatea

VITORIA

2021

GASTEIZ

Biblioteca Universitaria

Aprender la escritura, olvidar la escritura: nuevas perspectivas sobre la historia de la escritura en el Occidente romano / Noemí Moncunill Martí, Manuel Ramírez-Sánchez (eds.). – Vitoria-Gasteiz: Universidad del País Vasco/Euskal Herriko Unibertsitatea, Argitalpen Zerbitzua = Servicio Editorial, 2021. – 461 p. : il. ; 24 cm. – (Anejos de Veleia. Series Minor ; 39)

Incluye referencias bibliográficas.

Textos en español, inglés e italiano.

D.L.: BI-00482-2021. — ISBN: 978-84-1319-317-5.

1. Escritura – Historia. 2. Inscripciones – España. 3. Epigrafía. I. Moncunill Martí, Noemí, ed.
II. Ramírez Sánchez, Manuel, ed.

930.272

003.071



SEEC

Fundación **BBVA**



UPV/EHUren Argitalpen Zerbitzuaren Veleiako eranskinak (Series Minor) sailak Academic Publishing Quality (CEA-APQ) edizio akademikoen kalitatezko zigiluaren aipua jaso du.

La serie Anejos de Veleia (Series Minor) del Servicio Editorial de la UPV/EHU ha sido distinguida con el Sello de Calidad en Edición Académica - Academic Publishing Quality (CEA-APQ).

© Servicio Editorial de la Universidad del País Vasco
Euskal Herriko Unibertsitateko Argitalpen Zerbitzua

ISBN: 978-84-1319-317-5

ÍNDICE

Noemí MONCUNILL MARTÍ, Manuel RAMÍREZ-SÁNCHEZ, <i>Introducción</i>	9
1. Norte de África y Canarias	
Renata Ana SPRINGER BUNK, «La investigación de las inscripciones líbico-bereberes canarias: un siglo y medio de estudios»	17
Irma MORA AGUIAR, «La dispersión de la escritura líbico-bereber desde Numidia hasta Canarias»	39
2. Península ibérica	
Joan FERRER I JANÉ, «La escritura turdetana en el contexto de las escrituras paleohispánicas».	67
Ignacio SIMÓN CORNAGO, «El sureste ibérico: un ejemplo de diversidad de escrituras (siglos V-I a.C.)».	95
Javier HERRERA RANDO, «Epigrafía pública y latinización en el sur de Hispania» . .	119
José María VALLEJO, «La adquisición de la escritura en el Occidente romano: el caso lusitano».	147
Noemí MONCUNILL MARTÍ, «Social and material aspects of writing in ancient Iberia: the evolution of the local scripts under the influence of Rome».	161
3. Península itálica y Sicilia	
Corinna SALOMON, «On the relationship and emergence of the Raetic alphabets». .	187
Enrico BENELLI, «Sharing graphemes. Unusual choices in Sabellian writing systems»	213
Nicholas ZAIR, «An acute problem: glides, diphthongs and vowels in the Oscan alphabet»	225
Giulia SARULLO, «Some remarks on the rendering of velars in the archaic Latin inscriptions».	241
Simona MARCHESINI, «Literacy in Pre-roman Apulia. Theoretical framework and evidence»	263

Cristina GIRARDI, «Fenomeni di contatto culturale e linguistico nei santuari di altura della <i>Regio X</i> »	279
Víctor SABATÉ VIDAL, «Come maledire un siceliota: alfabeti ed espedienti grafici nelle <i>defixiones</i> greche della Sicilia».	303
4. Provincias noroccidentales	
Milagros NAVARRO CABALLERO, Nathalie PRÉVÔT, Coline RUIZ DARASSE, «The appearance and disappearance of writing in Roman Aquitaine (with an appendix based on PETRAE data)».	333
Alex MULLEN, «Socio-literacy: an interdisciplinary approach to understanding literacy in the Roman North-West».	357
Tineke LOOIJENGA, «How the runes were lost and won...».	381
5. Estudios de conjunto	
María José ESTARÁN TOLOSA, «Learning the Latin alphabet. Alphabet-switching and graphemic adaptation in the western Mediterranean (first century BCE to first century CE)».	401
Gabriela DE TORD BASTERRA, «Writing as an agent of change in local religions: a new way of communicating with the gods... Or with the people?».	423
Manuel RAMÍREZ-SÁNCHEZ, «Bancos de imágenes digitales para la investigación epigráfica: cambios y oportunidades ante el reto de la ciencia abierta»	443

ON THE RELATIONSHIP AND EMERGENCE OF THE RAETIC ALPHABETS

Corinna Salomon
ORCID: 0000-0001-7257-6496
University of Wien

Received: 2019/6/18

Accepted: 2020/9/24

Abstract: The Raetic language, an Iron Age Tyrsenian language attested in the Eastern Alps, is traditionally considered to be written with two different alphabets, called the Sanzeno and the Magrè alphabet. The paper provides an updated account of the evidence and the differences and similarities between the alphabets in terms of letter forms, distribution and chronology, and discusses the question of their respective origins.

Keywords: Raetic, North Italic alphabets, Alpine epigraphy.

Sobre la relación y surgimiento de los alfabetos réticos

Resumen: La lengua rética, un idioma tiriano de la Edad de Hierro documentado en los Alpes orientales, se escribe, según se ha considerado tradicionalmente, mediante dos alfabetos distintos, llamados el alfabeto Sanzeno y el Magrè. En el presente artículo se ofrece una relación actualizada de los testimonios y las diferencias y similitudes entre los alfabetos en cuanto a la forma de las letras, la distribución y la cronología, y se examina la cuestión de sus respectivos orígenes.

Palabras clave: Rético, alfabetos itálicos del norte, epigrafía alpina.

§1. The Raetic language is attested in about 350 inscriptions on 300 objects. Only about one third of these documents is certainly language-encoding, another third is non-script (marks and other dubious inscriptoids)¹. The inscriptions are dated to the late 6th c. at the earliest until the 1st c. BC —Raetic

¹ Raetic inscriptions are cited with sigla according to Schumacher 2004 and *TIR*.

literacy appears to have come to an end during the Roman Alpine campaign of 15 BC; there is hardly any evidence for Latinisation. Raetic inscriptions come from the Padan plain, mainly the area of Verona, from the Alpine foothills between Adige and Piave, the Val di Non, the Bolzano area, and from the lands accessed through the upper Etschtal, the Eisacktal, Pustertal, Wipptal and Inntal, with three petrograph sites in the Northern Limestone Alps. The texts, where they can be understood, are prevalently dedications, on votive or ritual objects; funerary inscriptions are rare. From a purely epigraphic point of view, the Raetic corpus is traditionally considered to be divided into two distinct sets of documents, written with two different alphabets. Not least because of the preponderance of onomastic over lexical material, it was not until the work of Rix 1998 and Schumacher 1998 that the inscriptions which had been tentatively referred to as Raetic were certainly demonstrated to encode a single language, which is related to Etruscan. The Raetic writing tradition is younger than any of the others in Northern Italy, and it is not clear on which model or models its alphabets depend.

§2. Two different alphabets belonging to what is today considered the Raetic corpus were identified as early as 1853 by Mommsen in his seminal work on the *Nordetruskischen Alphabet*. In spite of his small database —forty-four items in all— Mommsen succeeded in correctly discriminating between a number of alphabets in pre-Roman Northern Italy, among them an «alphabet of Verona» on the Spada di Verona (VR-3) and a «Tyrolian alphabet» in two inscriptions (CE-1, WE-1) which had been published by Giovanelli and connected by the latter with the Raeti known from ancient historiography (1845). Three decades later, Pauli (1885) reduced the number of αβs north of the Po to four, and —in consequence of a handful of new finds from the area (BZ-4, BZ-10, NO-11, SZ-16)— renamed Mommsen's Tyrolian alphabet «Bozen alphabet.» Due to the greater similarity, he regarded this Bozen alphabet as well as the «Lugano alphabet» (i.e. the Lepontic alphabet) as daughter alphabets of the Etruscan script (Pauli 1885, 58-60), while believing the «Este» (Venetic) and «Sondrio» (Carnic) alphabets to be derived from a Greek source on the Adriatic coast.

In 1918, the considerable inscription find of Magrè near Schio was published by Pellegrini, who defined a «Magrè alphabet» as documented on the twenty-one pieces of antler. He included VR-3, which Pauli had not been able to place, and the since found PA-1 from Padova among the documents of this alphabet. Though he stressed its similarities to the Venetic alphabet, and distinguished it from Pauli's Bozen alphabet, he perceived its association with the latter through the linguistic forms they encode.

In the *PID* (1933), the material of the Bozen and Magrè alphabets was merged under the header «Raetic» on these same linguistic grounds, but Whatmough continued the alphabetic distinction —he considered the Bozen alpha-

bet to be particularly close to the original Etruscan one, and pointed again to the Magrè alphabet's affinity to the Venetic alphabets (*PID*, 507), ascribing new finds, such as the inscriptions from the Val d'Astico (AS-1 to AS-14), accordingly. Prosdocimi (1971, 31-34), made an effort to systematically distinguish between the alphabets on the basis of letter forms. After a suggestion by Mancini (1975, 306, n. 42), Sanzeno in the Val di Non replaced Bozen as the eponymous site for its large and concentrated output of finds.

§3. Pi, lambda and upsilon are the characters which primarily distinguish the Sanzeno and Magrè alphabets. The Sanzeno $\alpha\beta$ has pi with a single bar, lambda with the bar at the bottom, and tip-down upsilon; the Magrè $\alpha\beta$ has pi with a pocket (sometimes opened), inverted lambda with the bar on top, and inverted (tip-up) upsilon. The forms of the Sanzeno $\alpha\beta$ are the standard forms in the Etruscan and also in the Lepontic $\alpha\beta$, while the inverted forms of the Magrè $\alpha\beta$ are typical for the Venetic $\alpha\beta$ s.

	alpha	epsilon	waw	zeta	heta	theta	iota	kappa	lambda	mu
M	Λ	Ϝ	ϝ	ϙ	Ϟ	Ϝ	ι	ϙ	λ	μ
S	Λ	Ϝ	ϝ	—	Ϟ	Ϝ	ι	ϙ	λ	μ
	<i>a</i>	<i>e</i>	<i>v</i>	<i>z</i>	<i>h</i>	<i>θ</i>	<i>i</i>	<i>k</i>	<i>l</i>	<i>m</i>


	nu	pi	san	rho	sigma	tau	—	upsilon	phi	chi
M	ν	π	Ϻ	ρ	σ	τ	—	υ	φ	χ
S	ν	π	Ϻ	ρ	σ	τ	—	υ	φ	χ
	<i>n</i>	<i>p</i>	<i>s</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>—</i>	<i>u</i>	<i>φ</i>	<i>χ</i>

FIGURE I

**The characters of the Magrè (M) and Sanzeno (S) $\alpha\beta$ s (standardised)
with transliteration letters**

There is a certain extent of (random?) variation in the North Italic $\alpha\beta$ s concerning the orientation of lambda and upsilon —non-inverted forms occur in the Venetic $\alpha\beta$ s (e.g. lambda in Es 16, upsilon in Es 22); inverted forms, particularly of upsilon, appear sporadically in the Lepontic $\alpha\beta$ (e.g. TI-36.3). Pi appears with a single bar in Venetic inscriptions from the Cadore (e.g. Ca 65). Still, the variation in the Raetic inscriptions is too regular to be put down to chance. The only inscriptions in which Sanzeno-forms co-occur with Magrè-forms are two inscriptions from find places which are associated with the Magrè $\alpha\beta$: AS-17.1 (Bostel di Rotzo) has hyperdistinctive Sanzeno lambda beside

Magrè pi and epsilon; MA-6 (Magrè) has Sanzeno epsilon. The latter example may be mute, as it can be attributed to a tendency to invert letters which can be observed in the inscriptions from Magrè. Otherwise, the two systems are never mixed.

AS-17.1		MA-6	
	<i>esipa?iareθuluva</i>		<i>piθiemetinu | θriahis</i>

In addition to pi, lambda and epsilon, three other letters appear consistently in different graphic variants in the two αβs. Tau is always retrograde with the bar rising in writing direction, and usually not crossing the hasta, in the Sanzeno αβ (Salomon 2017, 244-250)². Heta always features three bars in the Magrè αβ, two in the Sanzeno αβ. Both αβs contain graphically innovative characters for the dental affricate: the arrow character in the Sanzeno αβ (not only at Sanzeno itself), the zig-zag character exclusively at Magrè (otherwise absent from Magrè-αβ inscriptions). The rare, apparently archaic and somewhat mysterious dental character with a dot on top, which is provisionally filed as a variant of tau in the table, may be associated with the Magrè αβ. Lastly, vestiges of Venetic syllabic punctuation, where letters for sounds which do not form part of a CV-syllable are marked by puncts, are found only in the context of the Magrè αβ (at Magrè and Serso), while word separation—using one to (most often) three vertically arranged dots—is only employed in the Sanzeno αβ.

The most evident feature which unifies the Raetic αβs and sets them apart from the surrounding North Italic αβs is a negative one: the absence of omicron. Since this gap is linguistically motivated—like Etruscan, Raetic lacked phonemic /o/—it does not provide an argument for the epigraphic correlation of the two αβs. There are three purely epigraphic characteristics which connect them: mu with only three bars instead of the otherwise common four, and two characteristics concerning character orientation—retrograde alpha with the bar slanting downward against writing direction, and retrograde sigma with the upper angle opening against writing direction. Both the latter features are not unknown from neighbouring writing traditions

² I—provisionally—consider St. Andrew's cross to be a variant of theta. No form of framed theta is attested in the Raetic corpus so far, and St. Andrew's cross appears in combination with tau in numerous inscriptions in the Magrè and particularly in the Sanzeno αβ, where the two letters can be graphically distinguished quite clearly. However, at Magrè, a conspicuous number of lopsided crosses sometimes makes it difficult to graphically distinguish between St. Andrew's cross and tau with a straight hasta (e.g. MA-1 *piθ² amne*, MA-6 *θ²riahis*). It is not a given that Raetic St. Andrew's cross is archegraphematically the same letter in all instances; the issue cannot be considered to be resolved, and further research which takes into account the situation in the Venetic and Lepontic αβs is necessary (Salomon forthc.).

—e.g. alpha is always retrograde in the Venetic inscriptions from the Isonzo region (Is 1-3, *Is 5-6); the orientation of sigma is notoriously irregular in all North Italic writing traditions— but they are significantly prevalent in the Magrè $\alpha\beta$ and good as exclusive in the Sanzeno $\alpha\beta$.

§4. The areas in which the Magrè and Sanzeno $\alpha\beta$ s are used are neatly separated. The Sanzeno $\alpha\beta$ is used in the central area, i.e. in the Val di Non, the upper Etschtal (including the Unterland, Überetsch, the Bozen basin and the Vinschgau) and the Eisacktal, with tributary valleys and the surrounding highlands. Its area of distribution mostly coincides with the core area of the archaeological Fritzens-Sanzeno culture, i.e. South Tyrol and the Trentino.

Magrè- $\alpha\beta$ inscriptions, as may be expected from their affinity with the Venetic script, come from the area of the archaeological Magrè group, the Alpine foothills south of Trento between Adige and Piave and the northern Padan plain. Contrary to what is generally asserted in the literature, inscriptions from the Wipptal and Inntal in the north of the Raetic find area, including the Raetic petrographs, are not written in the Sanzeno $\alpha\beta$, but in the Magrè $\alpha\beta$. Inverted epsilon appears in WE-4, IT-4 and IT-2³. The graphically ambiguous letter with the bar on top, which could theoretically be Sanzeno pi, can be identified as lambda in well attested sequences, viz. the PN *lavise* in WE-1, the deverbal form *eluku* in WE-4, and the pertinentive case ending *-le* in IT-4 and possibly IT-7. Pi with a pocket can be found in IT-4 *piθiavesi* and IT-8 *piθan*], both names formed from the well-attested base *piθ-* (Schumacher 2004, 305). Tau is the standard Magrè-form in WE-4 *ta*. On the petrographs see below.

IT-2	χΑΔΛΣΙΑΛ	IT-4	πθιαβεςιχουριλε
	<i>χaisurus</i>		<i>piθiavesiχourvile</i>
IT-7	] | × (?) ? × π [	IT-8	] π Λ × [
	<i>]leθ:(?)θi</i>		<i>piθan</i>]
WE-1	ΛΑΒΙΣΕΣ	WE-4	] π Χ (?) Λ Σ Λ π Λ Λ π λ π π [?
	<i>lavises</i>		<i>]niχesitaeluku(?)θe</i>]

While the above documents consistently show the use of the Magrè $\alpha\beta$, one inscription from the Inntal is clearly written in the Sanzeno $\alpha\beta$. Found at the burnt-offerings site Demlfeld near Ampass, the perforated bronze plaque with inscription IT-5 find its best comparanda in the Raetic corpus in the in-

³ IT-2 on its own is problematic because of inverted chi, but the orientation of the other letters (especially alpha) and the comparison with the other documents from the Inntal indicates an orientation as rendered above.

scribed votive objects from the Val di Non, though we do not have any other bronze tablets⁴. In light of a Venetic inscription found at the same site (*It 1; Schumacher 2009), IT-5 may be judged as an import or the work of a travelling dedicant. Apart from IT-5 (and possibly NO-13, on which see below), the distribution of Sanzeno and Magrè $\alpha\beta$ is complementary⁵, though we are faced with alphabetically ambiguous finds in the boundary areas.

IT-5 |H|:|R|A|D|V|M|A|A| |S|X|Y|V|V|I|A|J| |S|I|X|V|A|X|V|K|I|V| |J|A|I|A|I|X| [|]X [|]I|? [|]?: [|] |θ [|]θ? *kai*a[? | *utiku* : *θaukiš* | *kleimunθeis* | *avašuerasi* : *ih*i

The northernmost Sanzeno- $\alpha\beta$ inscription (WE-3) and the southernmost Magrè- $\alpha\beta$ inscription (WE-4) in the Wipptal both come from Stufels (Brixen); the Wipptal lies outside the reach of the Sanzeno $\alpha\beta$. This border is not random, being cited in the archaeological literature (e.g. Lunz 1981, 43) as a point of transition between the northern and southern Alpine area (beside the Alpine divide at the Brenner pass), as it marks the point where the narrow Wipptal opens into the comparatively easily accessible Brixen basin⁶.

This may account for the fact that the Pustertal, which opens into the valley of the Eisack at Brixen, appears to take part in both traditions. The oldest and most substantial inscription from the Pustertal (PU-1) is written in a clear, if peculiar Magrè $\alpha\beta$ (Salomon 2018, 65-68). The only other certainly language-encoding inscription PU-4 on a stone plaque lacks any diagnostic letters. The remaining inscriptions from the Pustertal are difficult to read and of doubtful status, but they show an affinity to the Sanzeno $\alpha\beta$ in that some of them (PU-5, PU-6, PU-11) have non-inverted epsilon.

PU-4	𐌰𐌳𐌹𐌶	PU-5	𐌶𐌰𐌶𐌵
	<i>χarse</i>		<i>vakv</i>
PU-6	]𐌰(?)?VA[	PU-11	KVA
	] <i>aum</i> (?) <i>e</i>		<i>kva</i>

⁴ Bronze tablets with votive inscriptions are well attested in Venetic, but they do not really resemble the Demlfeld tablet.

⁵ The fragmentary and obscure inscription VR-6 from Montorio Veronese may be a second example of a Sanzeno- $\alpha\beta$ inscription from abroad, as it features the arrow character beside inverted epsilon and lambda (or Sanzeno pi?). The bar of tau crosses the hasta, but the letter is retrograde, as typical for the Sanzeno $\alpha\beta$. The inscription is unlikely to be non-script, but, without a linguistic interpretation, the evidence is doubtful.

⁶ Symptomatically, the German toponym *Wipptal* (from the Roman settlement Vipitenum near Sterzing), originally only used for the upper Eisacktal, today refers to the valleys of the Sill (running north from the Brenner pass into the Inn) and of the Eisack, running south, down to the Franzensfeste at the opening of the Brixen basin (called *Alta Valle Isarco* in Italian), while *Eisacktal* only refers to the valley of the Eisack between Brixen and Bozen.



FIGURE 2

The distribution of the Magrè (light grey) and Sanzeno (dark grey) $\alpha\beta\varsigma$ (without the Slovenian helmet inscriptions and EN-1 from the Unterengadin)⁷

⁷ The single fragmentary inscription from the Unterengadin is, with two letters, too short to be certainly ascribed to the Raetic corpus (Risch 1989, 1580; Pellegrini 1985, 98 [n. 14]). Archaeologically, the Ardez site lies in an area of interference between a number of cultural groups which are considered Raetic and/or Celtic, so that an ascription to the Cisalpine Celtic corpus is theoretically possible, but the site itself belongs in Frizens-Sanzeno context. Also, accompanying, more typically Raetic antler pieces with scratchings (*MLR* 6 and 7) support an identification of the find as Raetic.

The inscription(s) on the Situla Giovanelli from the Val di Cembra east of Trento are/is written in the Sanzeno $\alpha\beta$, with non-inverted upsilon and lambda, pi with a single bar, and consistently retrograde alpha and sigma. However, CE-1.3 features what appears to be a syllabic punct (*lup·nu*), and CE-1.4 has Magrè-style tau (*trinaxe*). The other inscription from the valley of the Avisio, FI-1 on an antler handle, cannot be ascribed to either of the $\alpha\beta$ s due to the many inverted and retrograde letters.

CE-1.3 $\mathfrak{A}\mathfrak{A}\mathfrak{M}\mathfrak{X}\mathfrak{M}\mathfrak{I}\mathfrak{I}\mathfrak{V}\mathfrak{M}\mathfrak{I}\mathfrak{V}\mathfrak{V}\mathfrak{I}$
lup·nu piθiave

CE-1.4 $\mathfrak{A}\mathfrak{Y}\mathfrak{A}\mathfrak{M}\mathfrak{I}\mathfrak{K}\mathfrak{I}\mathfrak{S}\mathfrak{V}\mathfrak{X}\mathfrak{M}\mathfrak{A}\mathfrak{S}\mathfrak{V}\mathfrak{X}$
kusenkustrinaxe

The inscribed Negau helmets found in Slovenia are notable for the mixture of languages and $\alpha\beta$ s inscribed on them. Of the Raetic inscriptions, SL-1 on the Vače helmet is probably associated with the Magrè $\alpha\beta$ (see below), while the inscriptions on Negau A from the Ženjak depot —SL-2.1, SL-2.4, beside the illegible SL-2.2— are written in the Sanzeno $\alpha\beta$, with the arrow character used in SL-2.1 *purti*, and Sanzeno tau in the same form as well as in SL-2.4 *kerut*⁸.

SL-2.1 $\mathfrak{I}\mathfrak{M}\mathfrak{V}\mathfrak{I}\mathfrak{S}\mathfrak{V}\mathfrak{X}\mathfrak{A}\mathfrak{A}\mathfrak{M}\mathfrak{I}\mathfrak{I}$
siraku : purti

SL-2.4 $\mathfrak{I}\mathfrak{V}\mathfrak{A}\mathfrak{A}\mathfrak{K}$
kerut

§5. The Sanzeno $\alpha\beta$ is distinguished by its uniformity across almost the entire time and area of its attestation. There is some minor variation in the forms of kappa (placement and length of bars), rho (pointed vs. rounded pocket), tau (placement of bar), phi (size of pockets) and chi (placement and length of bars), but, otherwise, letter shapes are quite stable. The character inventory, as far as can be seen, is the same in all find places.

The Val di Non yields a large amount of bronze material dated to LT A-B1 by its association with situla art and Etruscan cultic traditions. We are here mainly concerned with objects that were manufactured specifically for the purpose of being offered; the inscriptions can therefore be assumed to be contemporary with the objects. Inscribed bronze objects from the Etschtal and the Bozen basin come more from grave or problematic contexts than from clearly identifiable sanctuaries, as in the Val di Non; it cannot be excluded that some of the inscriptions on the Bozen material are younger than those from the Val di Non. However, the grave contexts provide reliable early datings for some of them (among them the only datable stone with inscription BZ-10), so that it is not unreasonable to assume LT A-B1 or at least B2 datings for these inscrip-

⁸ SL-2.1 as well as the inscription on Negau B are argued to be written in the Venetic Isonzo $\alpha\beta$ by Prosdocimi 1976, 225-227 and 220-223; the texts have been interpreted as Celtic and Germanic names, respectively, by Marstrand 1925, 45-51 and 59-64.

tions. Datable material includes situlae (SZ-30, BZ-5, BZ-9), votive miniatures (NO-3, NO-19), statuettes (NO-16, SZ-16), half-plastic bronzes (NO-11, SZ-1-15) and other votive or cultic objects (NO-15, SZ-87, SZ-96, BZ-2, BZ-3, BZ-4, BZ-14, BZ-25)⁹. A high dating is generally assumed for the outlier IT-5 (Marchesini 2013, 53)¹⁰. It may tentatively be assumed that the writing culture in the Raetic core area flourished in the early La Tène period, viz. roughly the 5th and 4th centuries, as did the Fritzens-Sanzeno culture as a whole.

Of the few demonstrably young language-encoding inscriptions from the Raetic core area, one is Latin (SZ-68; Franz 1953, 176f.), one shows alphabetically Latin features (BZ-24). In the latter case, it cannot be decided whether non-inverted upsilon is a Sanzeno-style or a Latinised letter, and which epichoric αβ was mixed with the Latin one.

NO-2 √ΛΓΛΣΥΜΛΠΠ
tianusatan

BZ-24 ΕΙΡΥΣΣΟ
osurie

More relevant is NO-2 on a Roman-age strainer. The inscription is clearly Raetic and written in the Sanzeno αβ, but peculiar for reasons other than its low dating. The final letter (or fragment of such) consists in a small tip-down chevron in the upper part of the line. While Franz (1958) read *pianusapau* in spite of the oddly misaligned final upsilon, Mayr (1960, 389) proposed *pianusapan* with the hasta of nu missing due to a scribal error, citing as a parallel SZ-16 *laθurusipianusapanin*. Schumacher's idea (2004, 336), suggested by Gleirscher, that NO-2 might be a forgery based on SZ-16 relied on his original, incorrect segmentation of SZ-16, but cannot be completely dismissed. While NO-2 starts with the second word of SZ-16 (*tianus*), which indicates a correct segmentation and therefore understanding of the text, it ends with half a letter in the middle of the third word (*[a]tanin*). If the last part were complete, the inscription might make sense as a votive text ('gift for Tianu?'), though the absence of a donor's name would be unparalleled among Raetic inscriptions. Even if one does not want to think of an outright forgery, the fact that NO-2 is completely identical to the middle part of SZ-16 strongly suggests a (Roman-age?)

⁹ For datings of individual objects and object groups see e.g. Walde-Psenner 1983, 108 [no. 85]; Schumacher 2004, 247; Gleirscher *et al.* 2002, 205f., 207; Gempeler 1976, 51 f.; Tschurtschenthaler & Wein 1998, 243; Marzatico 2012, 320-324; Lunz 1974, 83; Schindler 1998, 231; Lunz 1985, 145; Zemmer-Plank *et al.* 1985, 165 [no. 34]; Franz 1951, 130.

¹⁰ Nothdurfter 1979, 97-103, dates most of the iron material with marks from Sanzeno to between the 5th and the end of the 2nd c. The bulk of the pottery appears to belong in the latter phase, the prominent Sanzeno bowls being dated to the 3rd-2nd c. (Marzatico 2001, 511; but see Gamper 2006, 13-17, about the issues of bowl chronology). Not a single piece of iron or pottery from Sanzeno can be shown to bear a language-encoding inscription, so that this material's relation to and relevance for Raetic script is debatable.

imitation. In any case, NO-2 does not make a strong case for an actively used Sanzeno $\alpha\beta$ in the Roman-age Val di Non.

The Ganglegg inscriptions are not as easily dismissed. The numerous perforated bones and bone points —many with marks, up to fifteen with inscriptions— were laid down during the abandonment of the houses at the end of LT D2 (Gamper 2006, 254). Depending on the nature of their previous function, which is unclear, they may be older, but hardly much. All inscriptions can be argued to be written in the Sanzeno $\alpha\beta$: non-inverted lambda and up-silon appear in VN-2, 3, 9, 10 and 11, so that the letter with the bar on top, whose function cannot be determined in the fragmentary inscriptions VN-2 and VN-3, must be pi. Many of the inscriptions feature letter-like para-script sequences separated by puncts. How this find group fits in with the chronology of Raetic writing is yet to be determined.

VN-2, 3	⌈⌘⌘⌘⌘⌘⌘⌘ ⌈⌘⌘⌘⌘⌘⌘⌘	VN-9	⌘⌘⌘⌘⌘⌘⌘ <i>lavise</i>
VN-10	⌘⌘⌘⌘⌘⌘⌘ | ⌘⌘⌘⌘⌘⌘⌘⌘ <i>laθur | lumene</i>	VN-11	⌘⌘⌘⌘⌘⌘⌘ <i>lumene</i>

§6. We find a considerably larger extent of local and diachronic variation within the province of the Magrè $\alpha\beta$ than among the Sanzeno- $\alpha\beta$ inscriptions. The oldest documents written in Venetoid $\alpha\beta$ s are typologically isolated finds from sites which have not yielded any other Raetic inscriptions¹¹. The Situla in Providence, the Paletta di Padova, the Lothen belt plaque and the Spada di Verona are linguistically indubitably Raetic, but the $\alpha\beta$ s used differ from each other.

The ritual spatula which bears the inscription PA-1, found in a courtyard of the Basilica di Sant'Antonio in Padova, is dated to the 6th-5th c. (Gambacurta *et al.* 2002, 186 [no. 20]). PA-1 features inverted lambda and upsilon, but stands out in that it does not contain phi, tau or chi. While this could be coincidental, the spelling of (usually) *utiku* with theta (St. Andrew's cross) and of (usually) *axvil* with kappa are unique in Raetic inscriptions. This may indicate that the writer employed only one set of letters for obstruents, though the case is by no means clear. PA-1 employs punctuation for auslauting consonants —unless this is merely marking the end of the lines (which would be quite unnecessary with the given layout), the punctuation system may be considered to be in line with that used in Raetic inscriptions (see below, but also Salomon 2018, 41f.).

¹¹ It must be noted that the four objects are dated by typology, so that the inscriptions do not have *termini ante quos*. Bronze objects —particularly valuable pieces like the ones just mentioned— were used for much longer than objects of everyday use, so that inscriptions written on them may theoretically be considerably younger than the objects themselves.

PA-1 𐌱𐌹𐌰𐌺𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲 | 𐌱𐌹𐌰𐌺𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲
eθsualeuθikukaial. | nakinaθarisakvil.

In contrast, PU-1 on the Lothen belt plaque, which can be dated to the 5th c. by its figural decorations (Lunz 1981, 22), boasts a wealth of characters: apart from four-stroke sigma and double-pennon san, we have pi beside phi, kappa beside chi, and St. Andrew's cross beside zeta. If tau just happens to be missing, zeta would indicate the Etruscan αβ, but with inverted upsilon and lambda and pi with a pocket, a reading according to the Venetic Este αβ, where zeta writes /d/ and tau is absent, is more likely. The comparison of *φelzuries* (gen.) with NO-3 *φelturiesi* and SZ-14 *φelituriesi* (pert.) supports this interpretation. We would appear to be concerned with an isolated effort to write the Raetic language with a Venetic phase-2 αβ, were it not for the absence of syllabic punctuation. It also has to be remarked that the form of zeta is only known otherwise from a linguistically Celtic, but alphabetically isolated inscription from Ptuj in Slovenia (Eichner *et al.* 1994, 135); the shapes of sigma and san are not typical for the Este αβ either. Four-stroke sigma occurs elsewhere only the more peculiar type of prevalently dextroverse Raetic rock inscriptions (see below). It is very rare in the Venetic corpus, only occurring in the south, but less so in the Lugano αβ. Double-pennon san is isolated in the Raetic and Venetic corpora (the alleged parallels from Magrè and Verona mentioned by Pellegrini are non-existent), and rare in the Lugano αβ (Stifter 2015, 248). Heta with three bars, the variant of the Magrè αβ, is the archaic form of the Este αβ.

PU-1 𐌶𐌹𐌰?𐌱𐌹𐌰𐌺𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲𐌰𐌸𐌹𐌲 | 𐌰𐌹𐌰?𐌶𐌹𐌰𐌺𐌰𐌸
χα?φelzurieskalaheprusiahil(?) | klu?θurus

The oldest object bearing a Raetic inscription is the Situla in Providence with inscription HU-7, dated to the third quarter of the 6th c. (Frey 1962, 46)¹². Unfortunately, the find place of the vessel is unknown, as it came to light on the Italian art market. Upon announcing the purchase of the situla in 1934, the Rhode Island School of Design Museum gave the Etruscan necropolis at the Certosa di Bologna as find place, but this is by no means reliable (Salomon 2018, 39). The so-called Spada di Verona with inscription VR-3 is dated to the 6th-5th c. by Marinetti (1987, 138 f., n. 5), following Salzani's (1984, 793) identification of the object as a skewer of the sort which was used in ritual feasts and his comparison of the piece to similar ones from Padova and Magdalenska

¹² The RISD museum (<https://rismuseum.org/art-design/collection/pail-situla-32245>; last accessed 18.6.2019), where the situla is housed, is even more specific, giving a dating of 530-525.

gora. Salzani himself, however, gives the early 4th c., to which the Slovenian specimen can be dated by context (Salzani 1984, 181; also Gambacurta *et al.* 2002, 185 [no. 19]). De Marinis (1988, 121) lists the Spada among inscribed objects dated to the 5th c. The find place is indicated as Ca' dei Cavri, a fraction of Bussolengo, in the original publication (Rossi 1672, 404 [«Campagna Caudina»]); if this is accurate, VR-3 is the only Raetic inscription find from the right bank of the Adige in the area of Verona¹³.

HU-7 ?EKIESIAIKATAMM M^EIMAIMNE
 ?ekiesiutikutanin metlainile

VR-3 ?AMARIMAKKIKAAALZATADIKKAKMADAKIIVIMMAI
 taniniutikuremieshiratasuvakbikvelisanes

HU-7 and VR-3 feature inverted lambda and upsilon, as well as the typically Raetic three-bar mu. Both inscriptions display an inconvenient shortage of characters for obstruents, which are useful for determining the orthographic system of an inscription. They lack phi and chi; pi and St. Andrew's cross are also absent. The use of the letter with a dot on top connects them with SL-1 on the Vače helmet, VR-1 from San Braccio di Lavagno, a handful of inscriptions from Serso, and with two finds from the Val di Non. One of the latter, NO-13 on an astragalos from the Ciaslir on the Monte Ozol —the only high-altitude site to yield Raetic inscriptions— may be the oldest inscription from the Raetic core area, the stratum in which it was found being dated to 550-450 according to Perini (2002, 767). The inscription is practically identical to SL-1; it would appear that this document —the only inscription from the Monte Ozol sanctuary— belongs to a time before the Sanzeno αβ was established in the Val di Non. The only other inscription from the Val di Non which features the dotted letter is NO-3, otherwise written in the Sanzeno αβ, on the miniature shield from Meclo, which belongs with the Val di Non bronze votives dated to the early La Tène period. See Salomon (2017, 250-252) on the distribution of the dotted letter and considerations concerning its origin and function.

The twelve Serso antler pieces, from a find place in the Valsugana which still belongs to the core area of the Fritzens-Sanzeno culture, were found in house 2 of a settlement dated to the 5th-4th c. (with only house 3 yielding younger finds from the 3rd-2nd c.; Marzatico 2001, 505; Gleirscher apud Schumacher 2004, 247; De Marinis 1988, 121). The documents make up a

¹³ Generally, find places of Raetic inscriptions lie east of the river, while all the known Celtic epigraphic material, where the exact find spot can be determined, is from the west side.

somewhat varied group, though with some shared features. The inscriptions are basically written in the Magrè $\alpha\beta$; only SR-2 has non-inverted upsilon (not accompanied by pi or lambda). SR-1 and SR-7 have Magrè-style heta (in the same sequence). Three of the other inscriptions (SR-4, 6 and 9) contain the dotted letter. At least five inscriptions (SR-1, 4, 6, 7 and 10) feature syllabic punctuation according to the somewhat relaxed rules of Raetic¹⁴; four of these have punctuated letters¹⁵. Punctuation systems which function on a recognisably syllabic basis are, apart from the above-mentioned CE-1.3, only employed in inscriptions from Serso and Magrè.

SR-4	]Υ·Ϛ|Ϛ† W | A]Ϛ·///Ϛ†·1ΛX <i>θul.te?·sq [ | \$ teris·η [</i>	SR-6	AΥ·Ϛ|Ϛ†AΥϚAϚϚΛϚA <i>aruseθar·nateris·nq</i>
SR-7	ϚΛϚAϚ|ϚΛΥ[<i>]naviθahur·</i>	SR-10	1A| [ <i>]ial·</i>

The Magrè antler pieces were found in the bothros of a burnt-offerings site, which was in use throughout the late Iron Age (Ruta Serafini 2002a, 258), and have not so far been dated more precisely¹⁶. The inscriptions are notable, beside syllabic punctuation, sometimes with punctuated letters, in six inscriptions (MA-6, 12, 13, 14, 16 and 17), for the employment of the Magrè character for the dental affricate in another six (MA-2, 5, 8, 9, 10 and 23), which appears nowhere else. Interestingly, punctuation and the zig-zag letter are distributed complementarily, so that we may be faced with more than one writing tradition even within one small subcorpus —*cf.* Markey (2006, 147), who thinks that the antler pieces date from different phases of the sanctuary's existence. Inscriptions at Magrè display a tendency toward randomly inverted individual letters (including non-significant ones such as alpha, epsilon and nu), probably be-

¹⁴ In Raetic context (as indeed in some marginal Venetic traditions), the complex Venetic rules (Prosdocimi 1988, 336-342) were simplified, not applied as diligently, or not fully understood. Isolated vowels at the beginning of inscriptions are not punctuated, and neither are the second elements of diphthongs —the second vowel is either considered part of the preceding CV syllable, or a syllable in its own right, which is more likely in regard to the treatment of anlauting vowels. Certain consonant clusters also appear to be exempt from punctuation. In the same vein, the letters are only marked with a single punct placed behind (or inside) it rather than with one on either side.

¹⁵ The practice is known from the Venetic north, where puncts are sometimes inscribed into rho and omicron (e.g. Ca 10, Ca 28, Ca 67, Ag 1, Gt 14). In Raetic, they occur in the inscriptions of Magrè and Serso as well as in PA-1. The letters into which puncts are inscribed are mu, lambda and rho; the punct can be either a dot or a short stroke.

¹⁶ Pellegrini 1918, 175 f. dated the complex to Este IV (LT B-D), but his specification of 4th c. for the inscriptions was based on palaeography (206), as is that of De Marinis 1988, 121 (5th c.). Gambacurta 2002, 122 gives the 3rd-2nd c. without argumentation.

cause the writers turned the objects in their hands during the inscriptions' application (e.g. MA-17).

During the time in which the central Raetic area writes Sanzeno-style, Magrè- $\alpha\beta$ inscriptions appear sporadically both in the north and in the south. Datable early La Tène documents come, beside Serse, from the Pillerhöhe (IT-8; Tschurtschenthaler & Wein 1998, 247), from Matrei am Brenner (WE-1 on a situla handle), from Stufels (WE-4; Tecchiati *et al.* 2011, 50), and from San Briccio di Lavagno and Montorio Veronese in the very south. Of the two (probably) language-encoding inscriptions from Montorio, dated to the 4th-3rd c. (Marinetti 2004, 409), VR-7 contains no diagnostic letters, while VR-6 contains too many (see n. 5). Both inscriptions from San Briccio (VR-1 and 2; Gambacurta 2002, 122 [n. 22]) are written in the Magrè $\alpha\beta$, although, apart from this basic characteristic and the fact that they are both inscribed on unusually large pieces of antler, they do not appear to be associated. VR-1 features the dotted letter, while VR-2 arguably has similarities with much younger documents from San Giorgio di Valpolicella and Castelrotto.

The inscriptions from San Giorgio, dated to the 2nd-beginning of 1st c. (Marinetti 2004, 412), are clearly written in the Magrè $\alpha\beta$, but are conspicuous for the occurrence of zeta in VR-11 and the complete lack of sigma. The possibility of direct influence from Northern Etruscan writing in the form of zeta being used for /z/ and san for /s/ is discussed in Salomon (2018, 42-46) and Salomon (forthc). VR-17 has mu with four bars, otherwise unknown in Raetic inscriptions, and possibly Venetic syllabic punctuation. The inscriptions from Montorio, Castelrotto and San Giorgio show a predilection for alpha with a vertical central bar.

VR-10	𐌶𐌵𐌳𐌵𐌶𐌵𐌶𐌵𐌶𐌵𐌶𐌵	VR-11	𐌶𐌵𐌶𐌶𐌶𐌶𐌶𐌶𐌶𐌶𐌶 [
	<i>iesulat-naxe</i>		<i>]st-lux-zn-xe</i>
VR-12	𐌶𐌵	VR-13	𐌶𐌶𐌶𐌶
	<i>alp</i>		<i>larie</i>
VR-14	𐌶𐌶,𐌶𐌶	VR-17	𐌶𐌶,𐌶𐌶 [
	<i>lav-ša</i>		<i>]mai-ma</i>

Further Magrè-alphabet finds dated to the middle and/or late La Tène period include the ceramics from Bostel di Rotzo (4th-3rd c.; De Guio 2011, 176), IT-2 from the Himmelreich (Gamper 2006, 265 f.), and the Trissino bones (2nd-beginning of 1st c.; Ruta Serafini 2002b, 259).

In the Inntal inscriptions, pi has a large pocket which reaches the bottom of the line and is not quite closed in both certain attestations (IT-4, IT-8), and also in the petrograph ST-2 (Schumacher & Salomon 2019, 168). This form is not attested elsewhere and appears to be particular to the Raetic

north¹⁷. In IT-7 and IT-8, St. Andrew's cross appears in a small variant that is reminiscent of theta in the archaic Venetic $\alpha\beta$ (Prosdocimi 1988, 328-333), but a connection is unlikely.

Among the utilisable petrographs from Steinberg, Achenkirch and Unterammergau, two groups emerge under both epigraphic and linguistic aspects:

1. Sinistroverse inscriptions ending in the morpheme syntagma *-nu-ale*, which contain the well-attested two-part name formula in the pertinentive case (where decipherable) and are written in a fairly straightforward Magrè $\alpha\beta$, with inverted lambda and upsilon and pi with a large pocket (ST-1, ST-2, ST-3, AK-1.1, AK-1.2, AK-1.6, AK-1.7, AK-1.19, AK-1.21).
2. Dextroverse inscriptions of unclear linguistic content which show certain special features (to varying extent), viz. ligatures, irregular puncts which cannot be shown to be either word separation or syllabic punctuation, and peculiar letter forms: four-stroke sigma, lambda in a form known from the Venetic Cadore, and kappa with bars which do not touch in the middle. Of these inscriptions, ST-5 (the only sinistroverse one) and ST-6 are particularly similar in structure; AK-1.11 (as well as the fragmentary AK-1.10, AK-1.17, AK-2.1 and AK-2.2) may be grouped alongside¹⁸.

ST-3 ?]1AAΛM[K§SAKISAMMISA
esimmesikaszrinual[-?]

ST-5 ¶¶¶A·¶¶¶AA·¶A·AA·¶¶¶¶
hesitulanu-aleker-akve

How the two $\alpha\beta$ variants relate to each other is not at all evident. Both show affinities with the Venetic sphere beyond the typical Magrè features mentioned above. ST-2 and 3 may show influence of Este orthography in the use of zeta for a voiced/lenited dental stop (*kaszriesi* for ST-1 *kastriesi*; Schumacher & Salomon 2019, 169). The inconvenient positions of ST-5 and ST-6 on the Steinberg wall, the latter's being clearly dependent on that of ST-3, may indicate that type-2 inscriptions are younger. Specific Venetoid features include Ca-

¹⁷ This form is as easy to confuse with rho as the form with a small angle used at Magrè, which has been and is sometimes still read as rho (e.g. *MLR*, Markey 2006), but in all instances a substantial gap between the lower ends of the hasta and the angled or curved line which forms the pocket can be clearly seen.

¹⁸ The inscriptions ST-4 and ST-8 do not fit in smoothly with either group, though the use of zeta associates ST-4 with type 1, while the presence of four-stroke sigma puts ST-8 closer to type 2. The utilisable documents from the Ammertal are hard to compare with the material from the Rofan mountains due to their shortness; both are dextroverse, UG-1.1 features four-stroke sigma.

dore-style lambda and possibly younger Venetic heta in ST-5 (Salomon 2018, 75-77); four-stroke sigma only occurs elsewhere in Raetic in PU-1, which, however, shares the use of zeta with the type-1 petrographs.

§7. To sum up, we are faced with at least two distinct traditions of Raetic writing. The homogeneous Sanzeno $\alpha\beta$ was used in a specific time and area, with a chronological irregularity in form of the Ganglegg subcorpus; there are no local variants and there is only a small range of variation in the letter forms. Outside this core area, the situation is less tidy. Venetoid writing traditions for Raetic make their appearance as early as the late 6th c. and remain relevant during the early and middle into the late La Tène period in both the south and the north. The established term *Magrè alphabet* is useful as a cover term, but the relevant documents appear to belong to different writing traditions —some of the earliest documents may represent isolated attempts at writing Raetic with foreign $\alpha\beta$ s; small subcorpora display various idiosyncratic features.

§8. It remains to be determined how the two traditions relate to each other. As has been repeatedly noted in the literature, the forms of pi, lambda and upsilon in the two Raetic $\alpha\beta$ s appear to indicate their respective dependence on different models. The inversion of lambda and upsilon and the associated pi with a pocket (which allows or is triggered by the inversion of lambda)¹⁹ suggests a Venetic source for the Magrè $\alpha\beta$; the connection is supported by the sporadic use of zeta for a media or lenis and the instances of syllabic punctuation. The Sanzeno $\alpha\beta$, on the one hand, shares features with the Magrè $\alpha\beta$, but, on the other hand, looks more similar to the Etruscan and Lepontic $\alpha\beta$ s.

	pi	lambda	upsilon		pi	lambda	upsilon
Etruscan & Lepontic $\alpha\beta$	1	∩	∨	Venetic $\alpha\beta$	1	∩	∧
Sanzeno $\alpha\beta$	1	∩	∨	Magrè $\alpha\beta$	1	∩	∧

FIGURE 3

The forms of pi, lambda and upsilon in the relevant alphabets

It would be obvious to explain the situation by assuming that the Magrè $\alpha\beta$ is derived from a Venetic source, while the Sanzeno $\alpha\beta$ was created independently from an Etruscan or Lepontic model. However, considerations concerning the $\alpha\beta$ s' orthography point to a Venetic source for both. The arguments,

¹⁹ The pocket is almost always open in Venetic, more similar to archaic Etruscan pi.

put forward by Rix, are based on instances of discontinuity between the writing of the related languages Etruscan and Raetic which can be explained by Venetic mediacy.

§9. The most important common feature of the two $\alpha\beta$ s which points to a Venetic model is the appearance of uncommon characters to write the dental affricate /z/, which was denoted with zeta in the Etruscan $\alpha\beta$. That the two Raetic letters —the arrow character in the Sanzeno $\alpha\beta$, the zig-zag character at Magrè— denote the same phoneme is shown by the equation SZ-1 *pinaxe* - (e.g.) MA-8 *pinaxe* - Etr. *zinace* ‘put forward [vel sim.]’. They cannot be readily identified with any letters known from Etruscan or North Italic $\alpha\beta$ s, though they do resemble certain obscure Camunic forms (Salomon 2020, 170-173), and they do not seem to be graphically related to each other. The important point is that they are both irregular. According to Rix (1998, 48-54) (also Schumacher 2004, 312), the explanation can be found in the Venetic $\alpha\beta$ s. In Venetic, where the dental affricate was not phonemic, zeta was either dropped or reused (i.e. for /d/ in the Este alphabet). If the Raetians did not know Etruscan writing, but got all their data or instruction from the Venetians, they could have no notion of zeta as a letter for their affricate —this includes the people who employed the Sanzeno alphabet, where we would expect zeta for /z/ if it was derived directly from an Etruscan model.

§10. The second point made by Rix in favour of a Venetic source concerns the letters for dental stops. The plosive system of Etruscan consisted of two sets, written with the Greek letters for the unvoiced unaspirated set (π , τ , κ) and the unvoiced aspirated set (ϕ , θ , χ), and probably realised like the corresponding Greek phonemes; voicedness was non-phonemic (Wallace 2008, 30 f.). In the archaic Venetic $\alpha\beta$, the Etruscan letters for unaspirated unvoiced stops were used for the corresponding Venetic phonemes, while the letters for the aspirated row were used to denote the Venetic voiced stops. However, τ and θ were swapped, so that τ denoted the voiced stop, θ —in the form of a small St. Andrew’s cross— the unvoiced stop. From the fact that St. Andrew’s cross, which only appears in Etruscan as a marginal variant of frameless θ (Colonna 1972), is very common in both the Raetic $\alpha\beta$ s, Rix (1998, 54) concludes that it denotes the voiceless stop, while the rarer τ represents a secondary dental. This distribution, rather than any of the later Venetic phase-2 solutions for distinguishing dental stops (viz. zeta for /d/ at Este or framed θ for /d/ at Padova), allegedly points to the archaic Venetic $\alpha\beta$ as a model.

There are some problems with this proposition. As said above, zeta does appear as a letter for a voiced/lenited stop in Raetic inscriptions, quite early in PU-1. Also, Rix’ theory predates my reinterpretation of «Sanzeno π » as a vari-

ant of tau (Salomon 2017, 244-250), which makes tau considerably more common in the Sanzeno $\alpha\beta$ —despite the presence of St. Andrew's cross, it is not clear that what Rix calls «venetische Dentalvertauschung» is in evidence here (see n. 2). In general, the case of North Italic St. Andrew's cross is too complex to draw straight-forward conclusions at this point (Salomon *forthc.*). The character is also the unmarked dental letter in the Lepontic $\alpha\beta$, where it is probably a variant of theta —how it came about there is not clear, but in any case, the letter does not have to be from Venetic²⁰.

§11. A third, rather more involved argument is based on the observation that the letters for obstruents appear to be used irregularly in Raetic. In a Raetic $\alpha\beta$ derived directly from Etruscan, we would expect the letter sets pi-tau-kappa and phi-theta-chi to regularly denote the two sets of stops, unvoiced un-aspirated and unvoiced aspirated, which are in evidence in Etruscan and which we would also expect in Raetic. The many inconsistencies and irregularities in the spelling of both names and lexemes across the Raetic area strongly suggests that they don't.

Rix (1998, 54-56) explains this tangle by assuming optional allophone marking which imitates the Venetic use of the letters rather than the Etruscan practice. He argues that, while the archaic Venetic letter set pi-theta (St. Andrew's cross)-kappa could straightforwardly be used for the Raetic unvoiced stops, the set phi-tau-chi, which represented sounds that were non-phonemic in Raetic, were not reallocated to write the stops of the (hypothetical) Raetic second set of phonemic stops. Based on his theory that phi, tau and chi could represent inlauting fricative allophones of the voiced stops in Venetic²¹, Rix suggests that these letters were employed true to their Venetic sound values in Raetic:

1. According to the Venetic anlaut values of voiced stops, they could denote the inlauting lenited allophones of the Raetic unvoiced set, whose existence is inferred from Etruscan²².
2. According to the Venetic inlaut values of voiced fricatives, they could denote the anlauting voiceless fricatives of Raetic, as posited for Etrus-

²⁰ That is, unless one also derives the Lepontic $\alpha\beta$ from the Venetic one, as done by Rix (1997, 232).

²¹ Rix himself supports this notion only with problematic evidence derived from comparison with Camunic and Runic (1997), but Marinetti (2002, 47) adduces the Venetic spelling **maisteratorfos** for the dative plural *maisteratorbos* at Auronzo.

²² Latin spellings of Etruscan names with beta, delta or (g), where Etruscan writes pi, tau or kappa (e.g. ⟨pergomsna⟩ for ⟨percumsna⟩) indicate that the unvoiced stops were articulated as fortes in the anlaut, but as lenes in the inlaut (Wallace 2008, 30 f.; Rix 1985a, 219 f.).

can by Rix (1985, 219-222)²³. The thus available full set of characters for fricatives supposedly allowed for the scrapping of the digraph ⟨vh⟩ for Raetic /f/.

Rix (1998, 19) adduces the (uncertain) equation Raet. *prima* - Ven. *frema* as evidence for phi used for an anlauting fricative. His main argument for phi, tau and chi denoting lenited allophones in the inlaut is constituted by spelling variations. Rix (1998, 54) cites PA-1 *akvil* - BZ-4, SR-1 *axvil* and MA-13 *esstθua* - MA-11 *esθuva*; we may add the name bases *piθ-* - *pit-*, MA-19 *lasθe* - WE-3 *lasta*, and maybe SR-6 *θarna* - HU-6 *tarie* and VR-7 *kari* - VN-8 *χari*. By far the most important evidence is kappa vs. chi in the spelling of the preterite ending *-ke*, mainly in attestations of the verb *pinaxe*. In Etruscan, there is a morphological distinction between the preterite endings *-ke* (/ke/) and *-χe* (/k^he/), the first being the active, the second the passive form. In Raetic, we have no indication that such a grammatical distinction is made. There seem to be only active verb forms, as verbs in *-xel-ke* (at least in transparent texts) are accompanied by names in the casus rectus and can hardly be part of passive constructions (which use *ku*-participles). If kappa vs. chi, so Rix (1998, 55), is not morphological, the irregular variation must be due to the optional spelling of an allophone, with kappa the standard letter for the phoneme, chi the optional designation of the lenited allophone.

Schumacher (2004, 312-316), who does not specifically settle on the archaic Venetic αβ as a model, notes that foreign sounds in loan names must also be factored in, thinking particularly of IE voiced stops. He points to evidence for phi, zeta and chi being used to write voiced/lenited stops according to Este orthography, but doubts Rix' more problematic notion of phi, tau and chi for spirants in the anlaut, pointing out that the only tangible piece of evidence, the equation *prima* - *frema*, is not conclusive. Concerning allophonic lenes in Raetic, Schumacher (2004, 315 [n. 199]) notes that tau occurs frequently in the position after /s/, a phonetically plausible context for lenition. I have not so far been able to make any sense of the data myself. While Rix's analyses do not account for all spelling variations and disregard the differences between the various Raetic subcorpora, his proposal of optional allophone spelling remains the best theory as long as no systematic use of the characters can be demonstrated. The Sanzeno alphabet does appear to depend, at least to some extent, on the Venetic writing tradition, optionally spelling voiced stops in IE loan words and inlauting lenited allophones of unvoiced stops with phi, tau and chi, just like the Magrè alphabet. Whether a second phonemic row of obstruents is con-

²³ Rix justifies the assumption that the unvoiced Raetic fricatives were considered equivalent to the Venetic voiced ones with the absence of a phonemic opposition of voicedness in Raetic.

cealed behind the orthographic variation in either alphabet remains an open question.

§12. Even if we assume that Rix is basically right in identifying the archaic Venetic alphabet as the original source of Raetic writing, we still have to explain phase-2 features in Magrè- $\alpha\beta$ inscriptions. Syllabic punctuation at Serso and particularly Magrè, which are fairly close to the Venetic area, is easily explained as due to secondary influence; since syllabic punctuation is not otherwise used in Raetic inscriptions, it is not likely to have been a feature of the original model(s). It should still be pointed out that the form and use of dental characters in the archaic Venetic $\alpha\beta$, which was abandoned in the major phase-2 $\alpha\beta$ s, was retained in the Venetic phase-2 $\alpha\beta$ of Vicenza. This variant is attested in only three documents, but notably features the typically Raetic mu with three bars. The sporadic use of zeta for a voiced/lenited stop according to Este orthography is —unless zeta at San Giorgio is used in this function as well— a phenomenon restricted to the Raetic north, and explanations will have to take long-distance contacts into account.

§13. As concerns the Sanzeno $\alpha\beta$, I would like to entertain the possibility that its tradition goes back to a single centre of literacy in the Val di Non. In light of the concentration of finds at Sanzeno and the lack of significant variation graphically or orthographically, it may have originated as the $\alpha\beta$ of a sanctuary at Sanzeno itself. $\alpha\beta$ s which are specific to sanctuaries are known from the Venetic sphere; the evidence of Este-Baratella shows that writing schools could be appended to major sanctuaries (although an outright writing cult as in Este and in Portonaccio at Etruscan Veii is not in evidence elsewhere). The Casalini site —the only one of seven sites at Sanzeno which has demonstrably yielded inscribed objects— is a peculiar place. While the other find spots, dated to 550-450, testify to a large settlement (Gamper 2006, 334-337; Marzatico 2001, 496-501), the function of the excavated buildings (*case retiche*) at Casalini, dated to La Tène A-B, is unclear —they are arranged in neat lines, sharing walls, as if planned out (Marzatico 2001, 496). A projected settlement is a possibility, even though a settlement clearly lay just to the south: the Casalini site may have been a replacement. One may also consider an emporion with rows of studios and shops (in light of the numerous iron finds) or, like Gleirscher *et al.* (2002, 251, no. 155), a temple district with treasuries (regarding the votive objects). Nothdurfter (2002, 1136) thinks of cult buildings with bothroi in the basement and space for attaching votive gifts to the walls on the upper storey, together with administrative buildings and workshops which produced the votives. The corresponding votives —numerous inscribed bronzes (SZ-1-15, HU-5-6), most of which were found together in a sand pit— do indeed have holes drilled into them. The inscriptions on these bronzes are particularly simi-

lar. It is not a given that all the bronzes which have come down to us are from the same time, but some of them closely resemble each other in shape. The bulk is of local manufacture and was probably bought locally by the dedicants —it is altogether more likely that the inscriptions were made upon request by local scribes rather than by the dedicants themselves, which would account for the uniform ductus.

The Sanzeno $\alpha\beta$ could have been developed in a sanctuary at this major settlement during the first half of the 5th c., and emanated from there, maybe as far as its cult extended —i.e. along the Adige into the Bolzano basin and the Eisacktal. Its time of attestation coincides with the time in which the Fritzens-Sanzeno culture, which depended on Etruscan stimulus, was at its peak in the Trentino and in South Tyrol. Particularly in the cultic sphere, the dependence of the Fritzens-Sanzeno culture on influence from the south is manifest in the ornamentation and imagery on situlae and other luxury items (Gleirscher 1991, 51 f.; De Marinis 1999, 648 f.). This Mediterranean element is generally attributed to the Etruscan presence in the 6th c. Padan plain (Marzatico 1992, 233; Gleirscher 1993, 77-95). The Etruscans founded —among other proto-cities and emporia— Marzabotto and Forcello (near Bagnolo San Vito). Direct contacts between the Padan Etruscans and the inhabitants of the Central Eastern Alps, without Venetic or Celtic mediacy, are demonstrated, for example, by objects of Alpine make found in Forcello (De Marinis 1999, 624-626); a list of Etruscan imports found in Fritzens-Sanzeno context —not as many as might be expected, because much was manufactured locally on Etruscan models— can be found in Nothdurfter (1992, 60-62). De Marinis (1999, 628) stresses the importance of Forcello for the Etruscan-Raetic connection, which is notable insofar as the route of transit from that settlement into the north would conceivably not have led up the Adige valley, but along the Mincio to the Lago di Garda, via its influent, the Sarca, and over the plateau between the Adige and the Brenta mountains to the Noce and into the Val di Non, then over the Gampen pass to Meran. Particularly Sanzeno's evident role as a centre of metal working, trade and cult is difficult to reconcile with a main transit route passing it by in the Adige valley (Nothdurfter 1992, 51)²⁴.

Yet, as said above, the fact remains that a Raetic alphabet modelled on an Etruscan one should be much closer to the original orthographically, not merely in terms of letter forms —why no consistent obstruent spelling, why St. Andrew's cross, and why no zeta? It may be considered that two writing traditions were forged together, making the Sanzeno $\alpha\beta$ a hybrid of Venetic or-

²⁴ That trade also flowed through the Adige valley is demonstrated by Etruscan finds from the Vallagarina and Pfatten (Nothdurfter 1992, 50), but, according to Nothdurfter (1979, 105), the valley in antiquity was swampy and «monatelang unpassierbar» after heavy rains.

thography and Etruscan letter forms. This would mean assuming that learned script creators at Sanzeno —whether Etruscan or Venetic *maestri* or trained Raetians— rejected the possibilities which the Etruscan αβ offered to write the very similar Raetic language phonemically. Since, unless the early chronology of Raetic is seriously amiss, Magrè-αβ inscriptions predate the Sanzeno αβ, a possible explanation is that Venetic-based writing traditions which were already in place to write the Raetic language had enough regulating force to impose rather absurd orthographic rules on a new Raetic αβ. However, whether there was such a thing as established Veneto-Raetic writing is not at all clear from the meagre and heterogeneous evidence.

I should like to say that I also consider the possibility of an influence of the Lepontic αβ on the formation of the Sanzeno αβ viable. Gleirscher (Gleirscher *et al.* 2002, 124) points to ties between the Val di Non and the Golasecca culture in the west. There is currently no consensus concerning the system(s) of obstruent spelling in various phases of Cisalpine Celtic writing, but among the many (apparent) variants in spelling, it may be possible to find models for Raetic, specifically Sanzeno, orthography. The underlying language being Indo-European and/or influence from Venetic writing on Cisalpine Celtic traditions might account for certain seemingly Venetoid features, while the more traditional letter shapes could explain the Etruscoid look of the Sanzeno αβ.

ABBREVIATIONS

AKEO = 2002, *AKEO. I tempi della scrittura*, ed. Museo di Storia Naturale e Archeologia di Montebelluna, Cornuda: Museo di storia naturale e archeologia di Montebelluna.

MLR = S. MARCHESINI, R. RONCADOR, 2015, *Monumenta Linguae Raeticae*, Roma: Scienze e Lettere.

PID = J. WHATMOUGH, 1993, *The Prae-Italic Dialects of Italy II,3: The Raetic, Lepontic, Gallic, East-Italic, Messapic and Sicel inscriptions*, London: Oxford University Press.

TIR = S. SCHUMACHER, C. SALOMON, S. KLUGE, *Thesaurus Inscriptionum Raeticarum*, Vienna: University of Vienna. Available at: <http://www.univie.ac.at/raetica/wiki/Main_Page> [Access date: 18.6.2019].

BIBLIOGRAPHY

COLONNA, G., 1972, «Clusium et Orvieto», *Studi Etruschi* 40, 470-471.

DE GUIO, A. (ed.), 2011, «Bostel di Rotzo (VI) – stato di avanzamento delle ricerche», *Quaderni di Archeologia del Veneto* 27, 168-183.

- DE MARINIS, R. C., 1988, «Le popolazioni alpine di stirpe retica», in: A. M. Chieco Bianchi *et al.* (ed.), *Italia omnium terrarum alumna. La civiltà dei Veneti, Reti, Liguri, Celti, Piceni, Umbri, Latini, Campani e Iapigi*, Milano: Libri Scheiwiller, 99-155.
- , 1999, «Rapporti culturali tra Reti, Etruria padana e Celti golasecchiani», in: G. Ciurletti, F. Marzatico (eds.), *I Reti/Die Räter. Atti del simposio 23-25 settembre 1993, Castello di Stenico, Trento* [Archeologia delle Alpi 5], Trento: Servizio Beni Culturali, Ufficio Beni Archeologici, 603-649.
- EICHNER, H., J. ISTENIČ, M. LOVENJAK, 1994, «Ein römischerzeitliches Keramikgefäß aus Ptuj (Pettau, Poetovio) in Slowenien mit Inschrift in unbekanntem Alphabet und epichorischer (vermutlich keltischer) Sprache», *Arheološki vestnik* 45, 131-142.
- FRANZ, L., 1951, «Der älteste Fundbericht über das vorgeschichtliche Gräberfeld von Pfatten», *Veröffentlichungen des Museums Ferdinandeum* 31, 125-132.
- , 1953, «Epigraphische Kleinigkeiten», *Der Schlern* 27, 176-178.
- , 1958, «Eine Inschrift aus Cles», *Der Schlern* 32, 39-40.
- FREY, O.-H. (ed.), 1962, *Die Situla in Providence (Rhode Island). Ein Beitrag zur Situlenkunst des Osthallstattkreises* [Römisch-Germanische Forschungen 26], Berlin: De Gruyter.
- GAMBACURTA, G., 2002, «Manufatti iscritti in osso o corno», *AKEO*, 121-126.
- GAMBACURTA, G. *et al.* (eds.), 2002, «Catalogo. Veneti antichi. Alfabeti e documenti», *AKEO*, 157-275.
- GAMPER, P., 2006, *Die latènezeitliche Besiedlung am Ganglegg in Südtirol. Neue Forschungen zur Fritzens-Sanzano-Kultur* [Internationale Archäologie 91], Rahden / Westfalen: Leidorf.
- GEMPELER, R. D., 1976, *Werke der Antike im Kunsthaus Zürich* [Sammlungsheft 5], Zürich: Kunsthaus Zürich.
- GIOVANELLI, B., 1845, *Le antichità rezio-etrusche scoperte presso Matrai nel Maggio 1845*, Trento: Monauni.
- GLEIRSCHER, P., 1991, *Die Räter*, Chur: Rätisches Museum.
- , 1993, «Zum etruskischen Fundgut zwischen Adda, Etsch und Inn», *Helvetia Archaeologica* 24, 69-105.
- GLEIRSCHER, P., H. NOTHDURFTER, E. SCHUBERT, 2002, *Das Rungger Egg. Untersuchungen an einem eisenzeitlichen Brandopferplatz bei Seis am Schlern in Südtirol*, Mainz a. R.: Philipp von Zabern.
- LUNZ, R., 1974, *Studien zur End-Bronzezeit und älteren Eisenzeit im Südalpenraum*, Firenze: Sansoni.
- , 1981, *Venosten und Räter. Ein historisch-archäologisches Problem*, Calliano: R. Manfrini.
- , 1985, «Eine neue „rätische« Inschrift aus Siebeneich», the book was published by the Assessorato alla Cultura del Comune di Bolzano, the Soprintendenza Provinciale ai Beni Culturali di Bolzano, and the Centro Coordinamento Attività Archeologiche Altoatesine *Scavi nella conca di Bolzano e nella Bassa Atesina 1976-1985. Ausgrabungen im Raum Bozen und Unterland 1976-1985*, Bolzano, 143-147.
- MANCINI, A., 1975, «Iscrizioni retiche», *Studi Etruschi* 43, 249-306.

- MARCHESINI, S., 2013, «Descrizione epigrafica della lamina», in: C. de Simone, S. Marchesini (eds.), *La lamina di Demlfeld* [Mediterranea, Supplemento 8], Pisa-Roma: Fabrizio Serra Editore, 45-53.
- MARINETTI, A., 1987, «L'iscrizione retica (PID 247) da Ca' dei Cavri (Verona)», in: A. Aspes (ed.), *Prima della Storia. Inediti di 10 anni di ricerche a Verona*, Verona: Museo Civico di Storia Naturale, 131-140.
- , 2002, «Caratteri e diffusione dell'alfabeto venetico», *AKEO*, 39-54.
- , 2004, «Nuove iscrizioni retiche dall'area veronese», *Studi Etruschi* 70, 408-420.
- MARKEY, T., 2006, «Early Celticity in Slovenia and at Rhaetic Magrè (Schio)», *Linguistica* 46, 145-171.
- MARSTRANDER, C. J. S., 1925, «Les inscriptions des casques de Negau, Styrie», *Symbolae Osloenses* 3, 37-64.
- MARZATICO, F., 1992, «Il gruppo Fritzens-Sanzeno», in: I. R. Metzger, P. Gleirscher (eds.), *Die Räter/I Reti*, Bozen: Athesia, 213-246.
- , 2001, «La seconda età del Ferro», in: M. Lanzinger et al. (eds.), *Storia del Trentino I: La preistoria e la protostoria*, Bologna: Il Mulino, 479-573.
- , 2012, «Testimonianze figurative nel bacino dell'Adige fra l'età del Bronzo e l'età del Ferro», *Preistoria Alpina* 46, 309-332.
- MAYR, K. M., 1960, «Die rätischen APAN-Inschriften», *Der Schlern* 34, 389-390.
- MOMMSEN, T., 1853, «Die nordetruskischen Alphabete auf Inschriften und Münzen», *Mittheilungen der antiquarischen Gesellschaft in Zürich* 7/8, 197-260.
- NOTHDURFTER, J., 1979, *Die Eisenfunde von Sanzeno im Nonsberg* [Römisch-germanische Forschungen 38], Mainz a. R.: Philipp von Zabern.
- , 1992, «Die Fritzens-Sanzeno-Kultur und ihre Beziehungen zur etruskischen Kultur», in: L. Aigner-Foresti (ed.), *Etrusker nördlich von Etrurien. Etruskische Präsenz in Norditalien und nördlich der Alpen sowie ihre Einflüsse auf die einheimischen Kulturen, Akten des Symposiums von Wien – Schloß Neuwaldegg, 2.-5. Oktober 1989* [Sitzungsber. d. ÖAW, Phil.-Hist. Kl. 589], Wien: Verlag der Österreichischen Akademie der Wissenschaften, 45-62.
- PAULI, C., 1885, *Altitalische Forschungen I: Die Inschriften nordetruskischen Alphabets*, Leipzig: J. A. Barth.
- PELLEGRINI, G., 1918, «Magrè (Vicenza) – Tracce di un abitato e di un santuario, corna di cervo iscritte ed altre reliquie di una stipe votiva preromana, scoperte sul colle del Castello», *Notizie degli Scavi di Antichità*, 169-207.
- PELLEGRINI, G.-B., 1985, «Reti e Retico», in: A. Quattordio Moreschini (ed.), *L'etrusco e le lingue dell'Italia antica. Atti del Convegno della Società Italiana di Glottologia*, Pisa: Giardini, 95-128.
- PERINI, R., 2002, «Il Ciaslir del monte Ozol, Revò-Romallo (Valle di Non, Trentino)», *Zemmer-Plank & Söldner*, 763-769.
- PROSDOCIMI, A. L., 1971, «Note di epigrafia retica», in: W. Meid et al. (eds.), *Studien zur Namenkunde und Sprachgeographie* [FS Finsterwalder, IBK 16], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck, 15-46.

- , 1976, «L'alfabeto (venetico) delle iscrizioni di Idria (Is 1, 2, 3) e gli alfabeti delle iscrizioni di Negau (A-B) e Vače», Appendix to A. L. Prosdocimi, P. Scardigli, 'Negau', V. Pisani, C. Santoro (eds.), *Italia linguistica nuova ed antica* [GS Parlangèli], Galatina: Congedo, 179-229 [203-229].
- , 1988, «La lingua», in: G. Fogolari, A. L. Prosdocimi (eds.), *I Veneti Antichi. Lingua e cultura*, Padova: Programma, 221-440.
- RISCH, E., 1989, «Iscrizioni preromane («nordetrusche») nel Museo Retico a Coira», in: G. Maetke (ed.), *Atti del Secondo Congresso Internazionale Etrusco*, Roma: Bretschneider, 1579-1586.
- RIX, H., 1985, «Schrift und Sprache», in: M. Cristofani (ed.), *Die Etrusker*, Stuttgart-Zürich: Belser, 210-238.
- , 1997, «Germanische Runen und venetische Phonetik», in: T. Birkmann (ed.), *Vergleichende Germanische Philologie und Skandinavistik* [FS Werner], Tübingen: M. Niemeyer, 231-248.
- , 1998, *Rätisch und Etruskisch* [IBS Vorträge 68], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- ROSSI, A., 1672, *Note ovvero memorie del museo del Conte Lodovico Moscardo*, 2nd ext. ed., Verona: Andrea Rossi.
- RUTA SERAFINI, A., 2002a, «Magrè», *Zemmer-Plank & Söldner*, 257-258.
- , 2002b, «Trissino», *Zemmer-Plank & Söldner*, 259-260.
- SALOMON, C., 2017, «Zu Varianten von Pi und Tau in rätischen Inschriften», *Die Sprache* 51/2, 237-263.
- , 2018, «*Thesaurus Inscriptionum Raeticarum* – New readings and inscriptions», *Die Sprache* 52/1, 32-101.
- , 2020, «Raetic and runes. On the relevance of North Italic inscriptions for the question of the origin of the Runic script», in: H. F. Nielsen & R. Nedoma (eds.), *Runic Inscriptions and the Early History of the Germanic Languages* [NOWELE 73.1] Amsterdam-Philadelphia: John Benjamins, 155-194.
- , forthcoming, «Divergency and Correlation in the North Italic Alphabets. Some Thoughts about Future Lines of Research», in: G. Waxenberger, A. Bauer (eds.), *ScriptandSound4 Conference Proceedings*.
- SALZANI, L., 1984, «Il territorio veronese durante il I millennio a.C.», in: A. Aspes (ed.), *Il Veneto nell'antichità. Preistoria e protostoria II*, Verona: Banca Popolare di Verona, 778-808.
- SCHINDLER, M. P., 1998, *Der Depotfund von Albedo TI und die Bronzedeptofunde des Alpenraums vom 6. bis zum Beginn des 4. Jh. v.Chr.* [Antiqua 30], Basel: Verlag der Schweizerischen Gesellschaft für Ur- und Frühgeschichte.
- SCHUMACHER, S., 1998, «Sprachliche Gemeinsamkeiten zwischen Rätisch und Etruskisch», *Der Schlern* 72/2, 90-114.
- , 2004, *Die rätischen Inschriften. Geschichte und heutiger Stand der Forschung*, 2nd, ext. ed. [IBK Sonderh. 121], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.

- , 2009, «Eine neue venetische Inschrift aus Ampass bei Hall in Tirol», **h₂nr* [FS Eichner = Die Sprache 48], 201-208.
- SCHUMACHER, S., C. SALOMON, 2019, «Die rätischen Inschriften vom Schneidjoch (Brandenberger Alpen, Tirol)», *Die Höhle – Zeitschrift für Karst- und Höhlenkunde* 70, 159-174.
- TECCHIATI, U., A. MORANDI, P. NEGRI, G. RIZZI, J. RIZZI ZORZI, 2011, «Archeologia, epigrafia, archeobotanica e archeozoologia di una casa della media età del ferro (v-iv sec. a.c.) scavata a Bressanone, Stufles (BZ), nella proprietà Russo (Stufles 16)», *Annali del Museo Civico di Rovereto* 26, 3-103.
- TSCHURTSCHENTHALER, M., U. WEIN, 1998, «Das Heiligtum auf der Pillerhöhe und seine Beziehungen zur Via Claudia Augusta», in: E. Walde (ed.), *Via Claudia. Neue Forschungen*, Innsbruck: Institut für Klassische Archäologie der Leopold-Franzens-Universität Innsbruck, 227-259.
- WALDE-PSENNER, E., 1983, *I bronzetti figurati antichi del Trentino* [Patrimonio storico e artistico del Trentino 7], Trento: Provincia Autonoma di Trento.
- WALLACE, R. E., 2008, *Zikh Rasna. A Manual of the Etruscan Language and Inscriptions*, Ann Arbor-New York: Beech Stave Press.
- ZEMMER-PLANK, L., G. TOMEDI, P. HAIDER, 1985, «Katalog», in: L. Zemmer-Plank (ed.), *Veldidena. Römisches Militärlager und Zivilsiedlung* (Ausstellungskatalog), Innsbruck: Tiroler Landesmuseum Ferdinandeum, 159-315.
- ZEMMER-PLANK, L., W. SÖLDER, 2002 (eds.), *Kult der Vorzeit in der Alpen. Opfergaben – Opferplätze – Opferbrauchtum*, Bozen: Athesia.



Kalitatea adierazteko zigilu bat da **ehupress**. Label horren azpian argitaratzen diren jatorrizko guztiek kanpoko ebaluazio bat gainditu dute, gutxienez bi adituren eskutik gauzatuta, parekoen ebaluazio bikoitz itsua metodoa erabiliz.

El sello **ehupress** es un distintivo de calidad. Todos los originales publicados bajo este sello han superado una evaluación externa, llevada a cabo por, al menos, dos especialistas, mediante el sistema de revisión por pares doble ciego.

The **ehupress** seal is an assurance of quality. All original works published with this seal have been subjected to external evaluation, carried out by at least two experts, through the system of double-blind peer review.

Le sceau **ehupress** est un distinctif de qualité. Tous les originaux publiés sous ce label ont passé avec succès une évaluation externe, en double aveugle par les pairs, réalisée par au moins deux experts.

SERVICIO EDITORIAL DE LA UNIVERSIDAD DEL PAÍS VASCO
EUSKAL HERRIKO UNIBERTSITATEKO ARGITALPEN ZERBITZUA

ACTA (24 × 17 cm.)

1. M.^a CRUZ GONZÁLEZ y JUAN SANTOS (eds.), *Las estructuras sociales indígenas del Norte de la Península Ibérica* [Revisión de Historia antigua I], 1994 [agotado].
2. JESÚS BARTOLOMÉ et ALII (eds.), *Historia y métodos en la enseñanza de las lenguas clásicas*, 1996.
3. ESTÍBALIZ ORTIZ DE URBINA y JUAN SANTOS (eds.), *Teoría y práctica del ordenamiento municipal en Hispania* [Revisión de Historia antigua II], 1996 [agotado].
4. JUAN SANTOS, RAMÓN TEJA y ELENA TORREGARAY (eds.), *El cristianismo. Aspectos históricos de su origen y difusión en Hispania* [Revisión de Historia antigua III], 2000.
5. JUAN SANTOS y ELENA TORREGARAY (eds.), *Polibio y la Península Ibérica* [Revisión de Historia antigua IV], 2005.
6. ELENA TORREGARAY y JUAN SANTOS (eds.), *Diplomacia y autorrepresentación en la Roma Antigua*, 2005.
7. JUAN SANTOS y ELENA TORREGARAY (eds.), *Laudes provinciarum. Palabra e imagen en la representación del Imperio Romano* [Revisión de Historia antigua V], 2007.
8. JUAN SANTOS (ed.), *Los tiempos antiguos en los territorios pirenaicos*, 2009.
9. JUAN SANTOS y BORJA DÍAZ ARIÑO (eds.), *Los griegos y el mar* [Revisión de Historia antigua VI], 2011.
10. M.^a JOSÉ GARCÍA SOLER (ed.), *Expresiones del humor: desde la Antigüedad hasta nuestros días*, 2010.
11. ANTONIO DUPLÁ ANSUATEGUI (ed.), *El cine «de romanos» en el siglo XXI*, 2011.
12. JUAN SANTOS YANGUAS y GONZALO CRUZ ANDREOTTI (eds.), *Romanización, fronteras y etnias en la Roma antigua: el caso hispano* [Revisión de Historia antigua VII], 2012.
13. ESTÍBALIZ ORTIZ DE URBINA (ed.), *Magistrados locales de Hispania. Aspectos históricos, jurídicos, lingüísticos*, 2013.
14. PILAR CIPRÉS (ed.), *Plinio el Viejo y la construcción de Hispania ceterior*, 2017.
15. A. BALDA BARANDA y E. REDONDO-MOYANO (eds.), *Opera selecta. Estudios sobre el mundo clásico*, 2017.
16. E. ORTIZ-DE-URBINA y J. M. VALLEJO (eds.), *Métodos y técnicas en Ciencias de la Antigüedad: estudios sobre investigación y docencia*, 2018.

OTRAS PUBLICACIONES DE LA UPV NO INCLUIDAS EN LAS SERIES DE VELEIA

1. *Serie de la Cátedra «Luis Michelena» - «Koldo Mitxelena» Cátedra*

LUIS MICHELENA, *Languages and Protolanguages*, with a Preface by J. Gorrochategui, 1997.

ANTOINE MEILLET, *Metodo konparatzailea hizkuntzalaritza historikoan*, J. Gorrochategiren hitzaurrearekin, 2001.

JOAQUÍN GORROCHATEGUI (ed.), *Basque and (Paleo)Hispanic Studies in the wake of Michelena's work. Actas del I Congreso de la Cátedra Luis Michelena*, 2003.

JOSEBA A. LAKARRA, JOAQUÍN GORROCHATEGUI y BLANCA URGELL (eds./arg.), *2nd Conference of the Luis Michelena Chair / Koldo Mitxelena Katedraren II. Biltzarra / II Congreso de la Cátedra Luis Michelena*, 2011.

J. GORROCHATEGUI, J. LAKARRA y C. MOUNOLE (arg./eds.), *Koldo Mitxelena Katedraren III. Biltzarra / III Congreso de la Cátedra Luis Michelena / 3rd Conference of the Luis Michelena Chair*, 2016.

BLANCA URGELL y JOSÉ M. VALLEJO (curaverunt), *Opera selecta Joaquín Gorrochategui. I. Aquitanica / Akitaniera*, 2018.

JOSÉ M. VALLEJO y CARLOS GARCÍA CASTILLERO (curaverunt), *Opera selecta Joaquín Gorrochategui. II. Palaeohispanica. Indoeuropaea*, 2020.

2. *Otras publicaciones*

JOAQUÍN GORROCHATEGUI, *Onomástica indígena de Aquitania*, 1984.

JUAN SANTOS, *Comunidades indígenas y administración romana en el Noroeste hispánico*, 1985.

JAVIER FERNÁNDEZ ERASO, *Las culturas del Tardiglacial en Vizcaya*, 1985.

J. T. KILLEN, J.L. MELENA y J.-P. OLIVIER (eds.), *Studies in Mycenaean and Classical Greek*, presented to JOHN CHADWICK, 1987.

ROSA MENTXAKA, *La pignoración de colectividades en el derecho romano clásico*, 1986.

J. M.^a EGEEA, *Documenta selecta ad historiam linguae graecae illustradam* I, 1988; II, 1990.

J.-P. OLIVIER y TH. G. PALAIMA (eds.), *Texts, Tablets and Scribes. Studies in Mycenaean Epigraphy and Economy* offered to EMMET L. BENNET JR., 1988.

J. T. KILLEN y J.-P. OLIVIER, *The Knossos Tablets*, 1989.

A. DUPLÁ y A. IRIARTE (eds.), *El Cine y el Mundo antiguo*, 1990.

G. FATÁS et al., *El manual del perfecto candidato. «Commentariolum petitionis» de Quinto T. Cicerón*. Introducción, traducción y estudio, 1990.

FCO. VILLAR (ed.), *Studia Indogermanica et Palaeohispanica in honorem A. Tovar et L. Michelena*, 1990.

J. L. MELENA y J.-P. OLIVIER (eds.), *TITHEMY. The Tablets and Nodules in Linear B from Tiryns, Thebes and Mycenae*, 1991.

J.L. MELENA, *Ex Oriente lux. La aportación de las filologías del Oriente Próximo y Medio antiguo a la comprensión de los primeros textos europeos*, 1984.

G. BILBAO TELLETXEA, C. Sallusti Crispi Bellum Iugurthinum. *Jugurtauren aurkako gerra*. Sarrera, edizioa, itzulpena eta oharrak, 1995.

I. RUIZ ARZALLUZ, P. Vergili Maronis Bucolica et Georgica. *Bukolikak eta Georgikak*. Sarrera, itzulpena eta oharrak, 1997.

G. LOPETEGI, C. Iulii Caesaris Commentarii de Bello Gallico. *Galietakoko guda*. Sarrera, itzulpena eta oharrak, 1999.

K. LARRAÑAGA, *Euskal Herria Antzinate berantiarrean eta lehen ertaroan*, 1993.

Para pedidos e intercambio:

SERVICIO EDITORIAL/ARGITALPEN ZERBITZUA
Universidad del País Vasco/Euskal Herriko Unibertsitatea
LEIOA - Bizkaia

SAILAK ETA BILDUMAK
SERIES Y COLECCIONES
www.ehu.eus/argitalpenak

