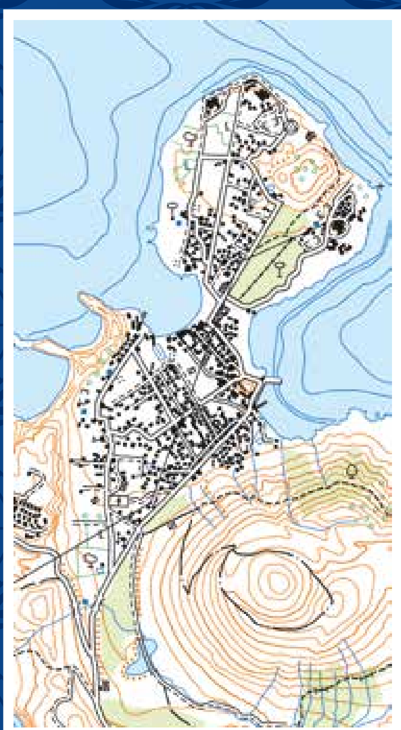
United Nations Group of Experts on Geographical Names
Romano-Hellenic Division

Toponymy and Cartography between History and Geography

Edited by
Andrea Cantile and Helen Kerfoot



International Scientific Symposium
Venezia [Venice] – Italia, 26th - 28th September 2018

IGMI - Firenze [Florence] 2019

"Nomina si nescis, perit & cognitio rerum"
(LINNAEUS C., *Philosophia botanica*,1751, p. 158, aph. 210)

In close cooperation with:

Italian Geographic Military Institute

Veneto Region

Istituto Veneto di Scienze, Lettere ed Arti

Under the auspices of:

Italian Cartographic Association

Italian Association of Geography Teachers

Italian Association of Geographers

Italian Centre for Historical and Geographical Studies

Italian Geographical Society

Society of Geographical Studies

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Photo of the participants in Campo Santo Stefano, Venezia.

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Presentation

It is a pleasure and an honour for me to present this second edition of the International Scientific Symposium organized as part of the activities carried out by the Romano-Hellenic Division of the United Nations Group of Experts on Geographical Names (UNGEGN).

This year the event was prepared in close cooperation with the Veneto Region and the Istituto Veneto di Scienze, Lettere ed Arti, under the auspices of the Italian Cartographic Association, the Italian Association of Geography Teachers, Italian Association of Geographers, the Italian Centre for Historical and Geographical Studies, the Italian Geographical Society and the Society of Geographical Studies.

The occasion was particularly propitious both to reflect on the relationship "Toponymy and Cartography between History and Geography", and to present the cooperative project, developed by the Italian Geographic Military Institute (IGMI) and the Veneto Region for the creation of a new database of geographical names, which combines, for the first time in Italy, the toponymy of the Regional Technical Map, at scales 1:5,000 and 1:10,000, to that of the Official Map of Italy at the scale 1:25,000.

During the four sessions of the symposium, over one hundred participants, technicians, experts and scholars (geographers, linguists, historians, architects, planners and cartographers) took part in the work, with twenty-one presentations by various experts from Brazil, Canada, Cyprus, France, Nigeria, Spain and from various Italian regions, all recording the general appreciation of those participants.

Considering the successful outcome of the initiative, I wish to express my heartfelt thanks to Dr. Cristiano Corazzari, Regional Minister for the Territory, Culture and Security of the Veneto Region, and to Prof. Gherardo Ortalli, President of the Istituto Veneto di Scienze, Lettere ed Arti, for their support and active cooperation.

I would also like to address a grateful acknowledgment to all members of the Scientific Committee for the symposium:

- Andrea Cantile, Chair of the Romano-Hellenic Division of the UNGEGN (Italy);
- Helen Kerfoot, Honorary chair of UNGEGN (Canada);
- Peter Jordan, Österreichische Akademie der Wissenschaften, Institut für Stadt und Regionalforschung (Österreich);
- Carla Marcato, Università di Udine, Istituto Veneto di Scienze, Lettere ed Arti (Italy);
- Alberto Nocentini, Università di Firenze, Accademia della Crusca (Italy);
- Cosimo Palagiano, Sapienza - Università di Roma, Accademia dei Lincei (Italy).

Finally, my deepest gratitude goes to Professor Andrea Cantile, President of the Commission for the Italian Official Toponymy of IGMI, for his efforts in creating this event, and to all the staff of the IGMI, which made possible the achievement of this second International Scientific Symposium and the publication of the related proceedings.

The Commander of the IGMI
(Maj. Gen. Pietro TORNABENE)

Toponymy and Cartography between History and Geography: a discussion of problems and opportunities, past and present

Andrea Cantile*

Abstract

The cover of the symposium booklet graphically shows the known and essential relationship between Toponymy and Cartography. This double connection takes on greater importance in a diachronic perspective, because it offers to scholars a fundamental source to understand the stages of the appropriation and the transformation of territory by Man and provides an indispensable aid for preserving the collective memory of places. To this end, the paper proposes a quick historical review of the relationships between Toponymy and Cartography from the ancient, medieval and modern maps to the first scientific maps of the 18th century and later.

At the end, the article proposes a consideration on the relationship between Toponymy and Cartography in the present day, highlighting the problematic aspect of updating maps, with regard to the loss of knowledge of the places affected by the changed rapport between Man and his territory.

Keywords: *cartography, toponymic desertification, loss of toponymic knowledge, endonyms, exonyms.*

Problems and opportunities of the past

According to the biblical tradition, the famous Neapolitan philosopher Giambattista Vico, wrote in his *Principles of new science about the common nature of the nations* "God granted [to Adam] the 'Divina Onomaturgia' or the imposition of names on things according to the nature of each of them" (Vico, 1834, p. 250). From this sentence we could infer that toponymy was born from the eighth day after the Creation, and surely this happened, starting from the first form of articulation of language by Man. In reality, we know that we have a fairly recent memory of all this.

In particular, we know that the oldest Egyptian onomastic treatises, perhaps inspired by Sumerian models, date back only to the 12th century BC (Gardiner, 1947, p. 38). While, the first gazetteer of geographical names of the Greek and Roman known world was achieved in the 2nd century BC by Claudius Ptolemy, who, in his *Geographiké Hyphégesis* ["*Guide to the drawing of the Earth*"], later also called *Cosmographia* and *Geographia*, provided a list of more than 8,000 geographical names, written in Greek, with their respective coordinates (Cantile, 2013, pp. 169-187; Pavo Lopez, in this book).

Also the Roman World produced many lists of toponyms as *itineraria scripta* or *adnotata* ["written itineraries"] with the distance between one place and the

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next one, and a special type of map named *itineraria picta* ["drawn itineraries"], which provided to the users topographic descriptions joined to the toponyms and relative distances in order to plan journeys. The most important testimony of this kind of map is undoubtedly the *Codex Vindobonenesis 324*, or *Tabula Peutingeriana* (Fig. 1), preserved today in the Österreichische nationalbibliothek, in Wien.

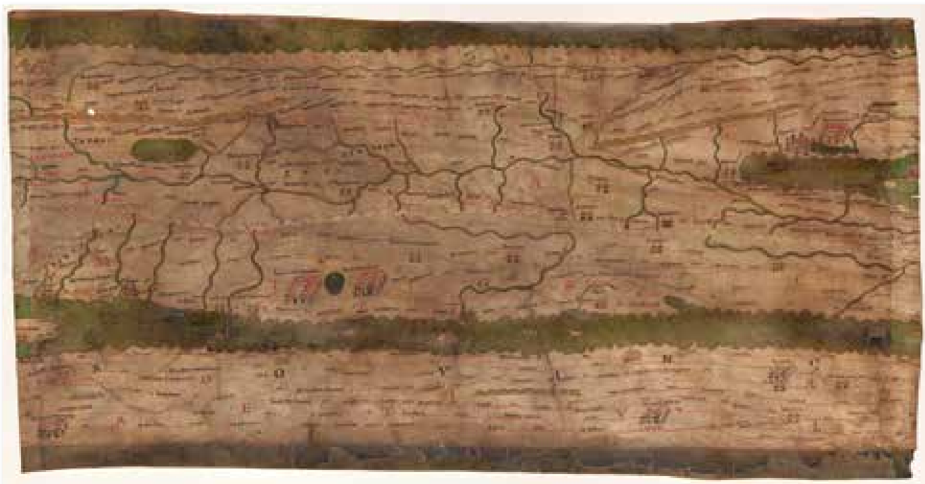

Fig. 1 - CodexVindobonensis 324, or Tabula Peutingeriana, Wien, Österreichische nationalbibliothek.

The Middle Ages were mainly characterized by the spread of maps, which, in addition to providing correct geographical information, also reported the existence of imaginary places, on the basis of religious and literary sources. In particular, after the writing of the *Etymologiae* or *Originum sive etymologiarum libri XX* (7th century) by Saint Isidore from Seville and of other encyclopedic works, the glossaries and the lists of cities, mountains, rivers and seas were written in Latin to be memorized and to understand their mystical meanings, according to the teachings of the Benedictine scholar, Rabanus Maurus. In his *De Rerum Naturis or De universo libri viginti duo* (842-847) he wrote: "[...] nomina ipsorum simul et locorum ex Hebraica lingua in Latinam transferre placuit, ut inde facilius mysticam significationem explanare possem" (Præfatio ad Ludovicum regem invictissimum Franciæ) and "Nomina locorum quae repperiuntur in divinis libris etiam sine significatione mystica non sunt, sed nos de his omnibus quid typice significent enarrare longum esse arbitramur, ideo nomina ipsorum tantum modo ponentes cum expositione historiæ, cæterum misterium earundem prudenti lectori ad investigandum relinquimus" (VI, De locis).

Since the 13th century, and centainly even before, nautical charts ensured a new registration of the the Mediterranean, Aegean and, later, New World coasts toponyms, without resorting to the traditional contributions of a literary or fantasy geography, but based on the direct experience of sailors and merchants and mainly using languages of navigation and trade. Among the forerunners of the nascent medieval nautical cartography, the oldest text that came into in our time is represented by the famous pilot book entitled *Compasso da Navigare* (Code

Hamilton 396, Berlin State Library) which records 1177 toponyms. The coeval *Carta Pisana* (Fig. 2) represents instead the first known nautical map, with a presence of 662 toponyms for the mainland and 265 for the outlined islands (Conti, 1985, pp. 1-7). This rich production of nautical charts made in the Mediterranean area, in the various workshops of Genoa, Venice, Ancona, Messina, Naples, Livorno, Mallorca, Lisbon, Marseille, Sfax, recorded the solutions adopted by several authors, that selected various geographical information reported by sailors and recorded place names on the maps adapting them according to oral sources from different languages and transliterations from written sources. In this kind of maps, "Polyglossia was the norm of the day, but every chart-maker or workshop spoke it differently, even if the deviation was sometimes only minor" (Brentjes, 2012, p.136).

Fig. 2 - Carta Pisana, Paris, BNF, 13th century.

In the same period (about 1355-1360), the Italian writer and poet Giovanni Boccaccio (1313 - 1375) produced an important gazetteer titled *De montibus, silvis, fontibus, lacubus, fluminibus, stagnis seu paludibus et de nominibus maris liber*, in which he listed, in alphabetical order, 568 mountains, 39 forests, 121 springs, 96 lakes, 934 rivers, 76 marshes and ponds and 115 seas, taken almost entirely from latin geographical texts, that were recorded according to an 'altimetric' order, from the mountains to the seas (Greppi, 2010, pp. 89-102).

In the first secret nautical charts of the New World were recorded for the first time the names of the lands "discovered" by Christopher Columbus and by the following explorers and conquerors of the Americas. They entrusted the memory of Spanish and Portuguese conquests, conducted in the name of an evangelization that was a simple pretext to hide the real purposes of exploiting the resources of those lands, and became over time "an unconscious portrait of how successfully an European colonial society had reproduced itself in the New World" (Harley, 2001, p. 143).

We can find the real aims of the European conquerors, for example, in the map of the New World included in the *Cosmographiae universalis* (Fig. 3) by Sebastian Münster, which showed a land almost without toponymy in the southern part of the new continent. This map ignored the rich toponymy of natives (as the paper of Tiago Gill and Vinicio Maluly show us in this book), but revealed the abundant presence of snakes, gold and pearls ("Parias abundat auro et margaritis"). In other words, this kind of map reveals its real nature as a communication device that implicitly sanctioned the right to conquer and loot, as if the lands represented were a Dantesque "world without people" (Dante, *Inferno*, XXVI, 117), but which instead determined horrendous massacres and destruction by the European conquerors. In the same way a similar map of the Portuguese Diego Hurtado de Mendoza entitled *Peruviae auriferae regionis typus* (Fig. 4), included in the *Theatrum Orbis Terrarum* by Abraham Ortelius, is very significant in this regard with its toponyms "Isolas de las perlas" and "Aurea Regio".

Fig. 3 - Sebastian Munster, Cosmograpiae Universalis, 1554.

Toponymic problems presented themselves when the *Geographia* of Ptolemy was rediscovered in Europe, at the end of the 14th century, after being unknown for about thousand years. In this case the Florentine 'map painters' formally posed the first problem of toponymic transliteration from the Greek to the Latin alphabet and in Florence, in the year 1415, the 'mapmakers' Francesco Lapaccini and Domenico Boninsegni achieved the first Latin version of the maps annexed to the *Geographia* and Latin became the language of geographical names for maps intended for scholars.

After the large diffusion of Ptolemy's *Geographia* in Europe, the atlases of Ortelius and Mercator and the rich cartographic production that characterized the Modern Age collected, ordered and spread a world toponymy, borrowed from the various documentary sources, making extensive use of Latin, a learned language that granted these works an international diffusion. In these atlases and loose maps all the toponyms of the world are generally Latin exonyms, except, of

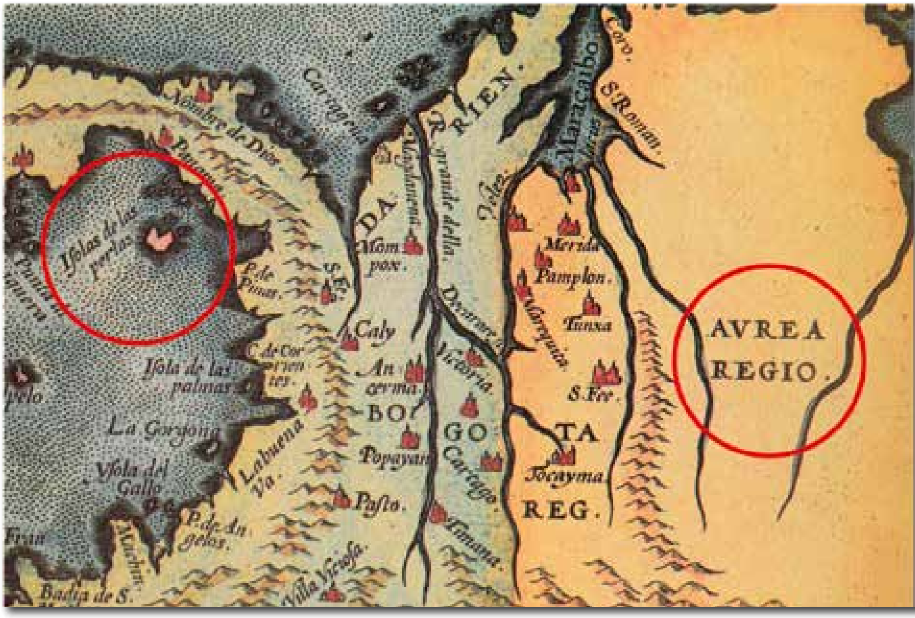

Fig. 4 - Diego Hurtado de Mendoza, Peruviae auriferae regionis typus, in Abraham Ortelius, Teatrum orbis terrarum, 16th century.

course, of the Latin ones, whose choice was not free of ideological and cultural conditioning, as in the case of the toponymy of the New World and the Middle East, in some maps produced after "the abandonment of the Ptolemaic representation" (Siniscalchi and Palagiano, 2018).


LIB VNDECIMVS
ONOMASTICVS.

Fig. 5 - Giovanni Battista Riccioli,
Geographiae et Hidrographiae reformata, 1611.

The first glossary for translating the geographical names from Latin to the Italian vernacular and vice versa was proposed by Italian Jesuit, Father Giovanni Battista Riccioli, in his *Geographiae et Hidrographiae reformatae* (Fig. 5), edited in the 17th century. The eleventh chapter of this book contained a list of seventy-six pages that provided translation of the main geographical names of the world (Riccioli, 1661, pp. 542-618).

Only the age of scientific cartography, supported and financed by the national states, elevated the map to a geometric model of terrestrial surface and slowly introduced also in the nomenclature of the places the recourse to a taxonomic process of toponymic collection. The names of places included in this new kind of national maps were derived from investigations, directly conducted in the places to be represented, questioning the inhabitants and those who frequented them on a continuous basis.

Scientific cartography shows a new focus on toponymy and in some cases the sensitivity of the cartographer signals the endonyms used by the inhabitants also in the lands of conquest, alongside the names imposed by the colonizers. This is the case, for example, of the map created by Christopher Middleton in 1773 titled "To The King, this Chart of Hudson's Bay [...]" (Fig. 6), in which we can see the note "New Groenland, called by the Inhabitants Secamunga".

Scientific maps make every possible effort to represent the real state of the territory, in relation to its denominations and compatibly with the scale of the map.

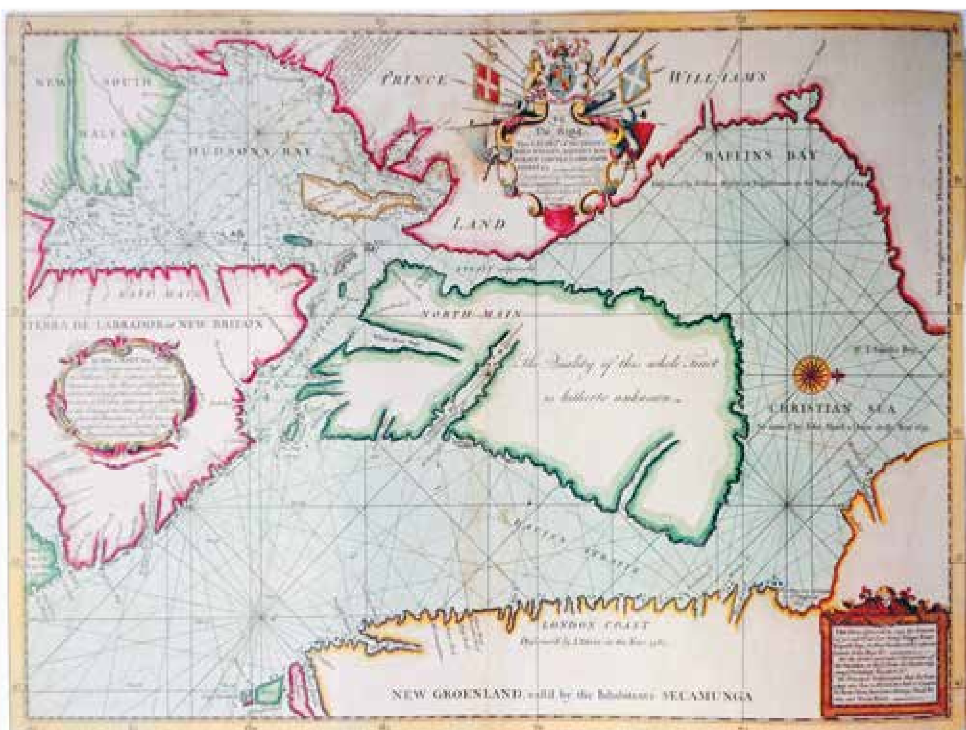

Fig. 6 - Christopher Middleton, Chart of Hudson's Bay, 1773.

The merit of having made the first, systematic large-scale toponymy collection of great parts of the territory is especially due to the first geometric cadastre (Fig. 7) and the importance of this source is further confirmed on this occasion thanks to the papers of many contributors to this book.

Scientific cartography starts a new era in the representation of the earth's surface and highlights the existence of ancient and new problems in the toponymy field.

In the creation of official geometrical maps, the national official languages regulated the systems for writing geographical names within each state. Those languages, that contributed to the creation of the conditions for the unification of communities distinguished by dialectal idioms or different languages, provided the first rules for the transcription of local names, derived mostly from dialectal or vernacular expressions.

Fig. 7 - Catasto gregoriano, Palazzo (Arcevia), State Archives of Ancona (Italia), Sezione Archivio di Stato di Fabriano, "mappe pontificie", cart. n. 80, Foglio XII.t.

Scientific cartography did not allow forms of diglossia. It was not possible for the official maps to show geographical names according to the official language coexisting with dialectal denominations. In the name of the construction and/or strengthening of national identities, through the systematic use of the official language, maps produced during this period determined, however, the loss of many place names based on the knowledge and use of the poorest social class of the population. The process of linguistic standardization was affected by numerous errors of toponymic transcription, determined by misunderstandings and by the inability of the topographers to write the dialectal names, according to the orthographic and phonetic rules of the official language. But even if many toponyms were corrupted, misinterpreted or incorrectly transcribed by topographers, fortunately we have today many other generic terms (e.g. river, mountain) that contain the memory of the original dialectal expressions.

In Italy, for example, after the unification of the Kingdom of Italy and the start of the operations to set up the first official topographic map of the State (Fig. 8), the Italian Geographic Military Institute gave rise to a national toponymy affected by many errors, because of the erroneous transcriptions made by the surveyors. Efforts were already made to remedy this problem at the beginning of the 20th century, starting a massive toponymic revision, which involved the correction of 36,458 place names (Porro, 1913).

Nothing new developed in the techniques of cartographic preparation: the registration of place names and their transcription on the maps still continued as in the past, as also highlighted by W. A. R. Richardson with regard to the famous cartographic school of Dieppe, which flourished in the 16th century, where "no two [...] cartographers coincide completely in the number of names they record, while spelling varies widely and even the positioning of names is not always consistent" (Richardson, 1984, quoted in Harley, 2001, p. 43).

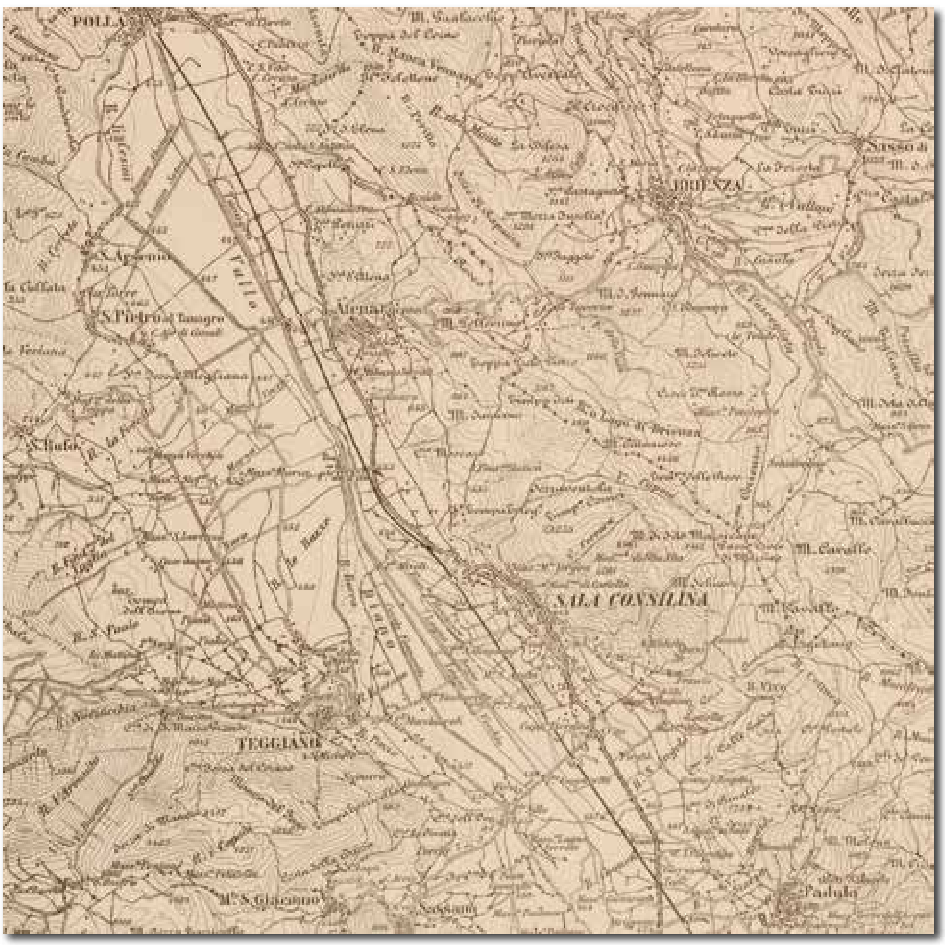

Fig. 8 - IGMI, Official Topographic Map of Italy 1:100,000 scale, sheet n. 199, "Potenza", 1902, detail.

In the creation of small and smallest scales geographical maps of exotic lands, however, the foreign toponyms became a serious problem, for which it was necessary to identify an orthographic and phonetic system that ensured the correct transcription and pronunciation of geographical names belonging to languages that did not use the Latin alphabet or that were even unwritten, because "[...] the diversity of transcription and pronunciation of geographic names as a direct consequence of the inconsistencies and imperfections of traditional alphabets [was] one of the main obstacles to the vulgarization of geographical knowledge" (Ricchieri, 1896, p. 505).

In 1788, Sir William Jones (1746-1794) formulated an orthographic and phonetic principle for the transcription and pronunciation of Asiatic geographical names, proposing among other things that for the vowels the Italian or German notation was adopted and avoided both the English orthography and the introduction of new characters, rather using diacritical marks (Jones, 1788, cit. in Asiatic Researches, 1790, pp. 317-322).

A transliteration system formulated in Europe was instead created by Karl Richard Lepsius (1810-1884) and published in his *Das Allgemeine linguistische Alphabet* (Berlin, 1855), but geographers judged as impractical this system for application by the masses (Lebrecht, 1891, p. 18).

At the end of the 19th century many Geographical Societies (e.g. Roma, London, Paris, Berlin, Washington) adopted their system for transcription and pronunciation for foreign toponyms.

In 1885 the Council of the Royal Geographical Society of London adopted the following rules for such geographical names that are not, in the countries to which they belong, written in the Roman characters, on the basis of the principles of Sir William Jones (Jones, 1788) and of those adopted for the Admiralty charts. These principles were as follows.

1. No change will be made in the orthography of foreign names in countries which use Roman letters: thus Spanish, Portuguese, Dutch, &c., names will be spelt as by the respective nations.
2. Neither will any change be made in the spelling of such names in languages which are not written in Roman characters as have become by long usage familiar to English readers: thus Calcutta, Cutch, Celebes, Mecca, &c., will be retained in their present form.
3. The true sound of the word as locally pronounced will be taken as the basis of the spelling.
4. An approximation, however, to the sound is alone aimed at. A system which would attempt to represent the more delicate inflections of sound and accent would be so complicated as only to defeat itself. Those who desire a more accurate pronunciation of the written name must learn it on the spot by a study of local accent and peculiarities.
5. The broad features of the system are that vowels pronounced as in Italian and consonants as in English.
6. One accent only is used, the acute, to denote the syllable on which stress is laid. This is very important, as the sounds of many names are entirely altered by the misplacement of this stress.

7. Every letter is pronounced. When two vowels come together, each one is sounded, though the result, when spoken quickly, is sometimes scarcely to be distinguished from a single sound, as in, *ai*, *au*, *ei*.
8. Indian names are accepted as spelt in Hunter's Gazetteer" (System of Orthography, 1885, p. 535).

In Italy, Giuseppe Dalla Vedova considers the problem solvable as a "scientific-international method" and a "geographic-national method". The first one, with a philological nature, "determines the exact form of the names [and reproduces the sounds] with the greatest possible exactness", using special subsidiary and diacritical signs. The second, adopted by the Italian Geographic Society, rejects the use of "other signs other than those of the national alphabet", accepting a certain approximation in the pronunciation of the names (Dalla Vedova, 1884).

In fact, in the following decades and for most of the 20th century, the place names of the various parts of the world were written in various forms, according to the most disparate orthographic and phonetic rules, producing a variably deformed toponymy, that sometimes was very far from the real names of the evoked places. However, implicitly accepting the principle that "[...] the real name of a geographical entity is that given to it by the inhabitants of the locality in which it originally appears [...]" (Crotta, 1889, p. 58) and recognizing that the sovereignty of the act of naming the places belongs to each state of the world, the United Nations organized in Genève (4th - 22th September 1967) the first International Conference on the Standardization of Geographical Names (United Nations Conference on the Standardization of Geographical Names, E.68.I.9,1968; E.69.I.8, 1969), giving rise to a commendable process that still inspires the work of the United Nations Group of Experts on Geographical Names.

Problems and opportunities of today

Our time is characterized by the advent and diffusion of geo-databases, which have radically transformed the concept of the map and its archiving; they have led to a widening of the storage, research and querying of data; and have enabled a wider range of capabilities for the cartographer. As for toponymy, this has led to the opening of absolutely new scenarios, in which all the traditional limits imposed by the cartographic technique based on analogue procedures seem radically out-dated by the new potential offered by the Information Communications Technologies.

Unfortunately, a problematic aspect in the relationship between toponymy and cartography concerns today the map update. New problems have been added to the old ones, while interesting perspectives are possible with the growing attention towards the return to consideration of the dialects and vernacular forms of expression, considered, on the one hand, "as relics of the past, as evidence of the different, as an object of folkloric study" (Rosiello, 1979, p. 310), and, on the other hand, with the intent of recovering the traces of a past at risk of being lost.

In Italy, the internal migration of many populations from mountainous, hilly and agricultural areas to cities has resulted in people losing memory of various toponyms and microtoponyms in the recent past, as they no longer frequent the places. This has led to the absence of such toponyms on more recent editions of the maps, which, by reflecting these changes in toponymic use, have highlighted the phenomenon of "toponymic desertification" (Cassi, 2004, p. 726).

In fact, we observe a reduction in the number of geographical names on the new edition of the Italian topographic maps, compared to the previous ones, which does not concern the names of municipalities but mainly has to do with the so-called minor or non-administrative toponymy, as names of small geographical regions, watercourses, mountains or hilly areas.

If this process of "toponymic desertification" cannot be remedied, a paradoxical scenario could arise in which the future maps will have large areas without toponyms, such as the Medieval representations of "unknown lands" (Fig. 9).

The questions in this regard are, therefore, at least two.

Does the topographic map have to correctly reflect the state of the places and strictly reveal also the loss of toponymic knowledge of a given epoch in a given territory, as an effect of the complex relationships between man and his territory?

Or should it ignore this loss of knowledge and follow in the footsteps of previous maps, reporting all the toponyms of a given place, even ignoring the temporary loss of memory due to social and economic dynamics?

Fig. 9 - Series of invented maps showing the phenomenon of "toponymic desertification" over time.

The solution to this problem may seem immediate, inserting all place names on maps, even if they are no longer in use or are unknown to the local communities.

However, this solution would contradict the fundamental principle of scientific cartography, according to which a map must represent the true, actual state of the territory, including in relation to its real local names. If this were not the case, the map would offer a false or not actual representation of the state of the places. The absence of the unknown toponymy would in fact testify to the actual mutation of the relationships between the territory and its inhabitants, as a consequence of economic or demographic transformations, such as abandonment or rare frequentation of the territory by the residents.

The removal of unknown out-dated toponymy could also lead in the future to the birth of new toponymy, replacing the previous one, as an evident result of the changed relationship between Man and the environment, yet, as well as it could consolidate over time the loss of memory of places.

The most correct solution, from a scientific point of view, should therefore be inspired by the respect of the fundamental principle, referring to the study of historical cartography the research on the previous denominations of place, with the risks that this would entail in the social memory. Historical maps and toponymic databases could offer in this case valuable help to scholars and those interested in this kind of research.

A solution that could, however, constitute a correct mediation between scientific needs and conservation of social memory could aim to graphically highlight within the maps, toponyms in use, as opposed to disused ones, using different fonts, weight or colour in the names (Fig. 10). This would entail a preservation of the reliability of the map and the potential renewal of the memory cycle, because “Memory [...] aims to save the past only to serve the present and the future” (Le Goff, 1979, p. 1005).

Fig. 10 - The example of the same map with place names in different colours to avoid the phenomenon of “toponymic desertification” over time.

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The Italian Geographic Military Institute and the Veneto Region project for a new geographical names database

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Abstract

Veneto Region and the Italian Geographic Military Institute (IGMI) are developing a project for integrating their geographical names databases. The project is based on the INSPIRE Directive and the UN reccomendations for the standardization of geographical names and human rights concerning the indication of the names of the places where people live.

The data used in the project come from archives of various organizations and will be standardized and merged. Examples of these data are the official Map of Italy, Veneto Region Base Map, topographical databases and archives from local authorities. At an operational level, in the first phase the original databases were merged and standardized in order to have consistent data.

This goal was reached using semi-automatic data processing methodologies due to the volume of data and information from various sources.

At the end of this processing, data will be shared with all Veneto Region municipalities for a complete integration.

Keywords: *integration of regional and national toponymy, toponymic databases merging, Veneto Region.*

The name of the places as a code of territorial identities

The toponymy existing in the topographic maps represents one of the most complex themes of cartographic operations since its significance is not the result of instrumental technical activities and scientific calculations, but derives from a series of relationships that surveyors establish with inhabitants and local institutions to obtain information on the names of the different places.

In the past, the writing of toponymy on maps was linked to the sensitivity of the mapmaker who had to choose the most suitable ways to give readability to the toponyms on the paper avoiding overlap with the geometry of the map. Not much has changed in the collection of data in the most recent form of representation of computer-assisted cartography; we can, if anything, observe how the new technologies seem to have reduced the operators' attention to the quality of the products.

At the same time the geographic information systems and the most modern

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search engines of geographical information allow informative searches through the names of the places and the road directories; the toponymy is becoming the most used key for accessing particularly complex databases even if it does not seem to be structured enough to respond to this new question.

Over forty years since the beginning of the regional project "Formation of Regional Base Map", the need for a check and a review of the work carried out so far has been felt, giving new structural contents to the toponymy information of the Region. It is essential to unify, in a single regional database, the contents of the various institutional archives on the subject, which include the IGMI Map, the Regional Base Map and maps of the Local Authorities, taking into account the United Nations recommendations on toponymy and the INSPIRE European Directive on geographical names.

The regulatory context and institutional references

UN activity

The UN Group of Experts on Geographical Names (UNGEGN) was established at the United Nations, in compliance with resolutions 715 A (XXVII) of 1959 April 23rd and 1314 (XLIV) of 31st May 1968, of the United Nations Economic and Social Council (ECOSOC) and the decisions adopted by the Council itself on 4th May 1973.

The fundamental aims of the Group are related to the standardization of names at the national and international levels, to the study and proposal of principles, guidelines and application methods to solve problems of unification of toponymy at national and international levels with special attention to developing countries. The standardization activity is based, in terms of linguistic treatment, on scientific methods in compliance with national achievements.

The activities are organized in 24 divisions; Italy chairs the Romano-Hellenic Division, which also includes Andorra, Belgium, Canada, Cyprus, France, Greece, Luxembourg, Moldova, Monaco, Portugal, Romania, the Holy See, Spain, Switzerland and Turkey.

The INSPIRE European directive

The Directive 2007/2/EC of the European Parliament and of the Council of 14th March 2007 which dictates the principles for an "Infrastructure for spatial information" in the European Union, provides with Annex 1 that the Member States must transmit important sets of spatial data; these include the component relating to toponymy and, of particular interest for the purposes of the present project, the following specific geographical names: name of areas, regions, localities, cities, suburbs, towns or population, centres or any geographical or topographic element of public or historical interest.

The national scenery

The main reference is constituted by the Italian Geographic Military Institute invested with the relevant expertise since 1911 and later reaffirmed with the Law of 8th June 1949, no. 605 "Composition of the permanent commission charged with directing the toponymic revision work of the Map of Italy", subsequently with the

Law of February 2nd 1960, no. 68, the IGMI has been indicated as a cartographic organ of the State, and the geographical, topographic and chorographic maps produced are referred to as "Official Map of the State".

Since the post-war period, the Institute has led the major projects of the Map of Italy, at scales 1:25,000 and 1:50,000, from which it has implemented the database of official toponymy of the Italian territory.

The regional context

The Veneto Region, with the Law of 16th July 1976 no. 28 "Formation of the Regional Base Map" has activated the project for the elaboration of the Regional Technical Map at the 1:5,000 and 1:10,000 scale. With the Law of 23rd April 2004 no. 11, it was reiterated that municipal land planning has to use the Regional Digital Base Map and at the same time municipalities must develop their own geographic information systems.

Protection of historical linguistic minorities

The protection of linguistic minorities is sanctioned by normative regulations issued at the different administrative levels. In fact if for the UN it is essential to recognize the right of the peoples in the national sphere to determine the names of the places of their territory, thus safeguarding the rights of historical linguistic minorities, Italy and Veneto have complied and defined their own rules through the appropriate areas of competence.

The operational aspects of the project

The Project expects to realize the integrated control of the regional toponymy expressed by the various datasets (State-Region-Local Authorities) and its structuring in a database that can be used in the various search engines relative to regional geographical information.

The Project is organized according to the following phases:

1. recovery of the toponymy databases of the IGMI and of the Region;
2. verification of the contents of databases and harmonization of sources;
3. organization of datasets for each municipality;
4. experimentation of the methodology with some local authorities;
5. sharing of data (through a Web GIS) with all the Municipalities for integration;
6. definition of the computerized archives of integrated regional and national toponymy;
7. integration with data from multilingual and historical toponyms.

Main sources

The main sources used are:

- The IGMI toponymy database: it consists of some Excel files with 50,519 records; sometimes there are duplicate records, subsequently reduced to single instances in the final version of the shared database, to be able to associate a unique identifier to each toponym.

- The regional database consists of a shape file including all the cartographic representations obtained from the various editions of the Regional Digital Base Maps produced over the decades and integrated with data from other regional databases; this file consists of 1,520,020 records.

The preliminary treatment of the toponymy database provided by the IGMI was carried out using simple procedures that basically produced the genesis of a shape file that associates a point to geocode each toponym.

On the contrary, the operations performed on the data of the Veneto Region were articulated through a complex procedure with numerous steps, identified on the basis of objective experimental findings, with the aim of making the work as automatic as possible.

Basically, we tried to obtain a dataset already essentially suitable for comparison and integration with the IGMI database, leaving only the content issues open, such as the presence of different names in the two databases or the coexistence of dialectal and Italianized toponyms.

Returning to the processing of data, you can list, in a nutshell, the operations performed on the original file (called raw.shp) of the toponyms produced by the Veneto Region.

The attribute table of the raw.shp is divided into several fields, which correspond to the provisions in the document "Codifiche per la CTRN alla scala 1:5,000 e 1:10,000" [Codes for Regional Digital Base Map at scale 1:5,000 and 1:10,000]; those of interest for the Project are:

a. LIVCOD, indicates the coding of the different classes of objects in the Regional Base Map and consists of 4 digits: the first two from the left indicate the level while the other two indicate the entity within each level;
b. LABEL, indicates the text reported on the Regional Base Map;
c. ANGLE, indicates the angle at which the text is represented on the Regional Base Map.

The main processing steps that have been performed using the QGIS 2.14.12 software are described below:

1. elimination of unsuitable LIVCOD-related records (for example, data referring to elevation points or contours, as well as numerous other types of records not relevant to our research);
2. removal of all records that are certainly unsuitable because the LABEL field is defined by names including the words "street", "road", "railway", etc;
3. elimination of the names associated with the roads by deleting all those having in the ANGLE field a value greater than 2 degrees;
4. removal of the points falling within a buffer around the road axes; in this way the names identifying the viability have almost completely disappeared with negligible loss of place names.

With regard to point 4, it is worth pointing out that, after numerous experiments, it was decided to use the road classes of the Land Cover Map of the Veneto Region of the year 2012 to calculate a buffer equal to a total of 20 metres; this option, compared to the tests carried out on the regional road graph or on the data of the Regional Base Map, was the best for the homogeneity of the input data and for a better processing speed.

At the end of the operations described, a file containing 175,457 toponyms was obtained, referring to the categories of toponyms of interest for the project, starting from the original dataset compilation from 1,520,020 cartographic sources; 89% of the records were then removed using semi-automatic procedures with low commitment of human resources.

Subsequently, the comparison and integration between the two databases was carried out for a case study on a sample territory consisting of 12 Municipalities. At the end of this operation, performed by experts in the field, we can highlight the excellent results achieved in terms of comparability between data of different origins that allowed aggregating and harmonizing toponyms from the two databases.

Conclusions

It is expected that, once the operations of definition and implementation of the Region's toponymy database have been completed, thematic developments will be promoted and implemented, aimed at increasing toponymy information resources. Of particular importance could be the recovery of toponyms reported in the historical cartography preserved in the State Archives (national and international). The comparative analysis of ancient and modern toponyms would, in fact, not only allow researchers to obtain information on the evolution of the population and on the characteristics of the environment, but also to develop a series of considerations about the natural and anthropogenic transformations that have affected the Veneto region over the years.

Through a careful study of geographical names, we could then get useful data to reconstruct the evolution of the landscape and to restore a historical-cultural value to the places that have been deprived of their identity.

Of equal importance is the development in the new Spatial Data Infrastructure of the Veneto Region for a Places Name Web GIS; the Portal will be developed as Participatory GIS and will become an indispensable tool both for local Public Administrations and for different communities, for the continuous updating and verification of data held by the Region and the IGMI.

The methodology of the participatory GIS will allow the gathering of much more information as different groups of people, public and private, even without specific skills in GIS, will be able to "participate" in a simple way to the collection of data that by their nature belong mainly to the culture and to local traditions.

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Modern maps, geographic information systems and toponymy in Cyprus

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Abstract

The Government of the Republic of Cyprus invested considerably in the development and implementation of an Integrated Land Information System (LIS), along with a multi-purpose Spatial Data Infrastructure (SDI), which, among others include all available INSPIRE data. An advanced geoportal has also been developed, offering direct access to authoritative geo-spatial data, which are readily available for searching, printing, downloading and direct accessing.

Geographical names are embedded in the databases enriching considerably the SDI. Interactive maps are available for many applications and uses, while the SDI is available for advanced GIS users for a variety of applications, including modern map production.

The new web services platform is a landmark in the modern history of the Republic of Cyprus, as following intensive efforts, the outside world was given full access to geo-spatial information.

The Government's target is the elimination of time-consuming bureaucratic procedures and the ease of access into core data. The currently available services will be continuously updated, through the gradual inclusion of new applications and data.

Keywords: *geographical names, sea geographical names, odonyms of Cyprus.*

Introduction

The history and culture of Cyprus is among the oldest in the world. The first signs of civilization traced in archaeological excavations and research date back approximately 9,000 years to the 7th millennium BC. This rich cultural landscape involves hundreds of archaeological sites scattered throughout the island, representing various historical periods in the island's evolution.

Cyprus is the third largest island in the Mediterranean, after Sicily and Sardinia, with an extent of 9,252 km^2. It is situated at the north-eastern corner of the Mediterranean, at a distance of 350 km north of Egypt, 102 km west of Syria, and 68 km south of Turkey. Cyprus lies at a latitude of 34.5° - 35.7° North and longitude 32.3° - 34.6° East.

To a significant extent, geography determined the historical destiny of Cyprus

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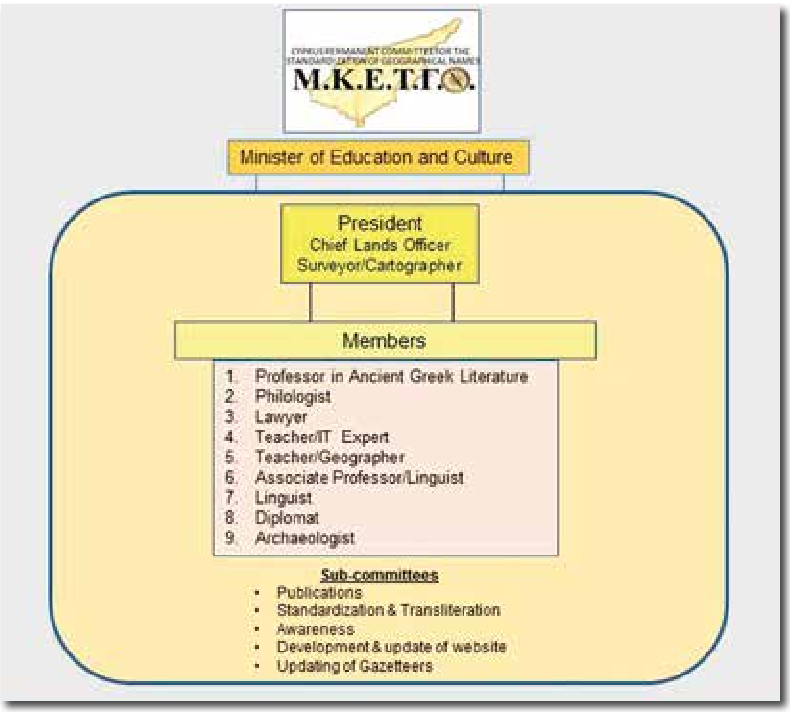
because of its geostrategic location, at the meeting point of three continents, namely: Europe, Asia and Africa. For certain periods, Cyprus lived under foreign domination, and became an independent state and a member of the United Nations in 1960. In 1961 it became a member of the Council of Europe, the British Commonwealth and the Non-Aligned Movement (NAM). In 2004, the Republic of Cyprus became a member of the European Union. In 2008, the Republic of Cyprus joined the Euro Zone and adopted the euro as its national currency.

The Cyprus Permanent Committee for the Standardization of Geographical Names (CPCSGN) was first created in 1967. It was officially established by the decision of the Council of Ministers no.15,769 of 21st April 1979, and constitutes the only competent National Authority for the Standardization of Geographical Names in Cyprus. According to law N.66(I)/98 and regulations ΚΔΠ 443/2001, the Committee operates under the Minister of Education and Culture. The Minister of Education and Culture, as the Competent Authority, appoints the President and the members of the Committee every five years. The Committee consists of a President and nine members.



CPCSGN Organizational Structure.

Geographical Names of Cyprus

Cyprus is privileged to have most of its geographical names bequeathed in ancient texts, from Homer to Herodotus, the tragic poets and Strabon, up to ancient cartographers, like Claudius Ptolemaeus, and from medieval cartographers, like Abraham Ortelius, up to Lord Horatio H. Kitchener, who mapped Cyprus in the 19th century at the beginning of the British rule of the island. The name of the island "Kypros" was mentioned by Homer 3,000 years ago.

Geographical names of Cyprus are more than just labels on a map. They are a connecting point between man and the land. They are needed to identify, describe, and analyze geographical entities. They carry the hopes and challenges of culture and identity of all Cypriots. Misuse of geographical names can cause friction. The official geographical names of Cyprus depict the island's history and culture through the years. They constitute significant evidence for citizens, researchers, historians, archaeologists and others, for analyzing, understanding, and preserving the identity of the nation.

Benefits from standardization and use of geographical names can be categorized in four main groups, these being: (a) Technical, (b) Social, (c) Economic, and (d) Cultural. Following strict rules, based on international standards, a complete standardization of all official geographical names of Cyprus was completed in the 80's followed by transliteration into Roman characters. This fact made possible the homogeneous representation of geographical names in digital databases, geographical information systems, maps, books and internet applications. It is very easy today for all foreigners, tourists, external researchers, academic institutions, organizations and others, to read correctly all official Greek, Turkish and other geographical names of Cyprus.

Geographical names are an important part of our geographical and cultural environment. They identify geographical entities of different kinds and represent irreplaceable cultural values of vital significance to people's sense of well-being and belonging. Ancient monuments, ancient settlements, churches, monasteries, mosques, cemeteries and other significant topographical features, along with their respective geographical names, are solid examples and inseparable parts of the cultural history of Cyprus.

Many concrete examples could be mentioned regarding the benefits gained by using standardized geographical names in Cyprus. Uniformity is achieved in all central government and local government organizations in their computerized and manual systems, web-applications, official reports, hardcopy and digital interactive maps, communication with citizens, street names, street signs, etc. Geographical names are very important datasets within the spatial data infrastructure of Cyprus, included in the integrated Land Information System and the INSPIRE spatial datasets required by the European Commission.

Geographical names in Cyprus are therefore of major importance. The society must bear the responsibility for respecting geographical names heritage and assuring that place name planning is carried out in such a way as to ensure that the place names are preserved and the cultural heritage protected in a rapidly changing environment.

All geographical names and toponyms of Cyprus are included in a "Complete Gazetteer". These names were derived from the official large scale cadastral map series and property registers of the Department of Lands and Surveys. The Complete Gazetteer of Cyprus was digitized, and is currently available on CPCSGN's website at: http://www.geonoma.gov.cy/myfiles/ekdoseis/cygazetteer/index.html.

All spatial features, including all geographical names, have been digitized and they were categorized and stored in the digital relational databases and the GIS sub-systems of the Integrated Land Information System of Cyprus.

Integrated Land Information System of Cyprus – Basic Layers.

All geographical names and toponyms are also included in a distributed European database named EuroGeoNames through EuroGeographics, and they are available on line at:
http://ec2-50-19-212-160.compute-1.amazonaws.com/EGNol/

Gazetteer of Sea Geographical Names

A new edition was recently prepared by the CPCSGN titled: "Gazetteer of Sea Geographical Names of Cyprus". The gazetteer was presented and submitted to the Eleventh United Nations Conference on the Standardization of Geographical Names that took place in New York, in August 2017.

This Gazetteer is available at:
http://www.geonoma.gov.cy/myfiles/ekdoseis/thalassia-toponymia/index.html

The sea names were extracted from the Hydrographic Database of the Integrated Land Information System of Cyprus. They are also accessible as e-services through Cyprus Geoportal. The collection and processing methodology is fully described in the edition.

Sea Geographical Names of Cyprus.

Odonyms

Odonyms in Cyprus are given and maintained by the Municipal and Community Councils. These odonyms, are under the approval of the respective District Officers, which operate under the Ministry of Interior. All official street names are communicated to the CPCSGN, for checking and correction, in order to achieve uniformity all over the island.

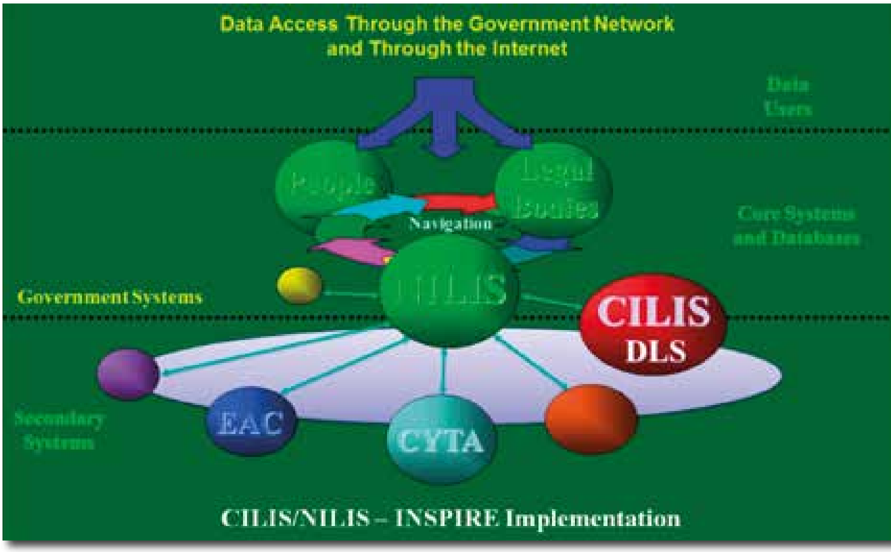
A complete catalogue of odonyms is maintained by the Department of Postal Services at:
http://www.mcw.gov.cy/mcw/dps/dps.nsf/All/A5F60C0E7BE1DC60C22581D7003EA9B8?OpenDocument

In addition, the Department of Lands and Surveys maintains street names in separate layers, as a part of the Spatial Data Infrastructure (SDI) of the National Integrated Land Information System (NILIS), thus making them available for several uses, through geospatial databases and web e-services. A variety of standard and ad-hoc maps are produced through this system. Geographical names are extremely important, and they are always included in mapping products and applications.

Importance of Using Geographical Names.

Geographical Names in Spatial Data Infrastructure (SDI)

All geographical names and toponyms are included in the geoportal of Cyprus at: www.geoportal.gov.cy. Geographical names and other geo-spatial information are accessible on-line for searching, viewing, transformation, downloading, printing, and direct accessing via GIS.

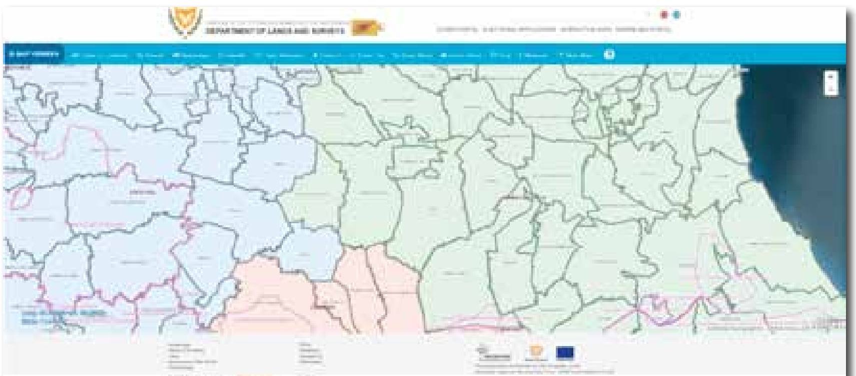


Spatial Data Access through the National Integrated Land Information System (NILIS) and INSPIRE e-services.

DLS Portal (http://portal.dls.moi.gov.cy/en-us/homepage/pages/default.aspx).

The New Internet Services platform is a landmark in the modern history of the Republic of Cyprus and the Department of Lands and Surveys, as following intensive efforts lasting many years, geo-spatial information was made fully accessible to the outside world, with on-line services via the Internet, through a platform of electronic services. The whole concept is based on a 24-hour available, fast and friendly service.

A new IT customer-centric culture is embedded in the platform, focusing on the citizen via the availability of electronic services. The Government's target is the elimination of time-consuming bureaucratic procedures in the acceptance of applications and the ease of access into core data. The whole effort is just the start; the target is to continuously improve currently available services offered, through the gradual inclusion of new applications in the near future.



DLS Portal – Interactive Maps (http://eservices.dls.moi.gov.cy/#/national/geoportalmapviewer).

The new Internet Services Platform consists of four (4) main pillars:

- A New and Dynamic Front Page with Static Information and Services. The new page includes all relevant static information, access to data, free maps and cadastral plans, fees calculating tools, etc.
- Ability to Navigate to a Property through an On-line Free Web Application. The applications use modern GIS (Geographical Information Systems) technology, extending them through Web-GIS capabilities. Various layers of information are available, such as: geographical names, administrative boundaries, land parcels, buildings, plan grids, aerial photography, satellite images, planning zones, hydrographic features etc. The ability to identify each property is available with many important parcel characteristics, scanned cadastral plans, the values of the general valuation and many others. Two additional thematic on-line services are also available with very important multi-variable attributes; the topographical and the hydrographical. Search, printing, as well as access via web-services is also offered.
- Electronic Application Submission. An "e-Applications Dashboard" is available for every citizen, hosting personal profiling, monitoring of all registered applications and providing the ability to launch and submit an application, purchase static maps, export data and upload data. The selection and provision

of GIS data to the citizen is dynamic and specific services are provided to private surveyors and valuers.

- Adherence and Implementation of the INSPIRE Directive for Cyprus. The implementation of the INSPIRE Directive (2007/2/EC) for the Republic of Cyprus (ref. to Law 43(I)/2010) through a specialized and dedicated INSPIRE GeoPortal platform, integrated inside the DLS PORTAL, is now fully available. The European INSPIRE Directive aims to create a European Union (EU) spatial data infrastructure. This implementation enables the sharing of geo-spatial information (classified into 34 different geospatial themes and several layers/e-services), among public sector organizations, and better facilitates public access to geo-spatial information across Europe. INSPIRE is based on the infrastructures for geo-spatial information that are created by the Member States, that are made compatible with common implementing rules, and are supplemented with measures at Community level. Geographical names are included in all major e-services. Network services, such as the INSPIRE GeoPortal of Cyprus make it possible to discover, transform, view and download spatial data and to invoke spatial data and e-commerce services from various Governmental sources, according to the INSPIRE Directive.

Cyprus INSPIRE Geoportal – Geographical Names of Cyprus (http://eservices.dls.moi.gov.cy/geoportal_inspire/mapviewer/index.html).

Conclusion

Geographical names constitute a very important element of the Spatial Data Infrastructure of Cyprus. They are directly accessible through geospatial databases, web e-services and applications. They play a very significant role, and they support the sustainable development of Cyprus. Government departments, academic institutions, private companies, and citizens access and use this information, along with many other available spatial and non-spatial data in their daily activities. There are many use cases that can be mentioned as examples. Some of these examples are listed below:

- Direct use by the Cyprus Tourism Organization within their web applications, maps and other hardcopy publications.
- Everyday use by the Postal Services Department for the direct identification of delivery locations.
- Direct use by the Department of Housing and Planning during all phases of the design and publication of planning zones for all communities and municipalities of Cyprus.
- Use by Civil Defense Service of Cyprus in all District Offices.
- Use by Cyprus Police in their daily activities.
- Use by the Ministry of Defense in their work procedures.
- Use by the Ministry of Education for administrative purposes and in Elementary and High Schools for educational purposes.
- Use by universities in studies and academic programs.
- Use by the Department of Antiquities for direct reference and identification of ancient monuments, e.g. UNESCO sites.
- Extensive use in on-line applications by citizens, within search criteria, for locating properties.

It became evident through the years that the use of modern technology such as Geographical Information Systems (GIS), along with a high precision and well maintained authoritative Spatial Data Infrastructure (SDI), and their availability through the internet, contribute significantly to the sustainable development of the country.

State of the art in the standardization of geographical names in Brazil

Vania de Oliveira Nagem*

IBGE'S MISSION
"To portray Brazil by providing the information
required to the understanding of its reality
and the exercise of citizenship."

Abstract

The presentation aims to illustrate the activities implemented by the Instituto Brasileiro de Geografia e Estatística and to show the methods and operational criteria for the standardization of geographical names in Brazil. Other items of the presentation will be the publication of the Glossary of Generic Terms of Geographical Names used in the systematic mapping of Brazil at the scale of 1:250,000, the List of Country Names, as recommended by UNGEGN, which contains, besides the country names, the names of their capitals, and the UNGEGN & IBGE International Course on Toponymy, organized by the UNGEGN Working Group on Training Courses on Toponymy, the UNGEGN Secretariat and by the Reference Centre on Geographical Names of the IBGE.

Keywords: *National Spatial Data Infrastructure of Brazil, Cartographic Bases and the Geographical Names, Portuguese-speaking Division.*

Historical and linguistics aspects

Brazil, which represents 46 per cent of the land surface of South America has, according to the 2010 census, a population of 190,755,799 people, distributed over 27 states, 5,570 municipalities, 10,285 districts and 662 subdistricts. There are eight major hydrological basins, divided into 796 minor drainage-basins, and 1,545 main watercourses, covering all the Brazilian territory. These figures give an idea of the dimensions of the field of geographical names in Brazil.

Brazil is the only country of Latin America whose official language is Portuguese. Differing from other countries of the continent, the language is almost uniform, having no dialectal forms, but it is rich in regionalisms and in influences from indigenous languages such as Tupi-guarani. The African languages, mainly Bantu, and specifically the Kibundo dialect, also had great importance.

When the process of colonization of Brazil by the Portuguese started, in 1500, there were about 2 million indigenous inhabitants (nowadays, there are about 300.000 individuals). Today, we have many geographical names in the indigenous

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languages, mainly in Tupi-guarani, but most of them are completely integrated in the Portuguese language and are in everyday use by the Brazilian society.

In the American continent, Brazil was the country which received most slaves. Between the 16th century and the first half of the 19th century, about 4.000.000 African men, women and children arrived in the country amounting to one-third of the world's slave trade. Almost all geographical names of African origins are found in microtoponymy.

"European immigration to Brazil is recent for it dates from the 19th century. From then on European names began to appear in specific areas of Brazilian toponymy a process that is linked directly to denominating terms" (Dick, M. V. de Paula do Amaral, 1982).

During the process of territorial occupation, other European influences besides the Portuguese were felt in some points of the territory: the German, the Italian, the Spanish, for example, between the years of 1884 and 1933 and too the years of 1945 and 1959, there were migratory waves which brought to Brazil about four million individuals and six hundred and seventy thousand individuals, respectively.

"The ethno-historical construction of Brazil presents the existence of various population strata [...] This heterogeneous origin provided different reflections in the language, habits and customs, regional traditions, and, consequently, in the toponym of the country. [...] The existence of distinct speakers in the territory would eventually mark, also distinctly, the local toponym" (Dick, M. V. de Paula do Amaral, 1982).

Many population strata played important roles in the process of construction of Brazil, influencing the use of the national language, Portuguese, and contributing to the construction of a Brazilian culture and consequently, to the landscape of geographical names of the country.

All these influences can be found in geographical names, either in generic terms or in the proper names of populated places and physical features, so this cultural heritage aspect of place names reflect phases of Brazilian history.

The standardization of geographical names in IBGE

The IBGE has taken part in the UNGEGN – United Nations Group of Experts on Geographical Names – as the representative of Brazil since the 1970. UNGEGN recommendations, are the main reference for the work developed by the Reference Centre on Geographical Names (CNRG) of the IBGE Brazilian Institute of Geography and Statistics (IBGE), that was created in 2009, where the names are dealt with according to the UNGEGN resolutions, including the concern with cultural heritage. In this sense, the mission of the Reference Centre on Geographical Names is to "restore the socio-cultural and historical value of geographical names aiming at their standardization, the maintenance of Brazil in the UNGEGN and the provision of a Database of official geographical names to the Brazilian society, enabling the recovery of geocartographic information from these names.

The Project Geographical Names of Brazil and the National Spatial Data Infrastructure – INDE

Since 2005 Brazil has been implementing the Project Geographical Names of Brazil, whose objective is the standardization of geographical names, the restoration of their historical and socio-cultural value and the promotion of a revival of interest in the retention and retrieval of Brazilian toponyms. In the core of this project is The Geographical Names Database of Brazil (BNGB), which is going to provide information on geographical names under the following categories: motivation, etymology, history, historical spelling, and alternative name variations, associated legislation and its force.

The BNGB is a product of the Reference Centre on Geographic Names of the Coordination of Cartography of the Brazilian Institute of Geography and Statistics (IBGE), and was developed by a multidisciplinary team of professionals from the Coordination of Cartography (CCAR) and the Directorate of Informatics of this institute.

The names in the database firstly were drawn from the Base Cartográfica Contínua do Brasil, ao Milionésimo (BCIM) – version 2.1 (Continuous Cartographic Base of Brazil, at 1:1,000,000 scale):

- General Economic Activities: geographic names of geographic features in which activities of public service, economic, cultural or commercial nature are practiced, such as dams, farms, plants, among others.
- Hydrography: geographic names of running or still water, as well as natural or man-made features contained in this environment, on or under its surface, such as rivers, waterfalls, islands, archipelagos, sandbanks, and others.
- Hypsography: geographic names of land and underwater surfaces regarding elevations, such as mountains, beaches, peaks, etc.
- Boundaries: names of imaginary or real lines, set by legal acts, which establish territorial borders and areas of special interest, such as parks, reservations, forests, and others. At the moment, the BNGB solely contains the names of areas of special interest.
- Localities: names of geographic areas including cities, towns, villages, etc. The classification of the localities follow the criteria established by the IBGE.The generic term of the geographic names of most elements in this category is implicit. Ex. City of Rio de Janeiro > Rio de Janeiro.
- Transportation System: names of features related to the transport and traffic of cargo and passengers, such as airports, railway stations, roads, among others.

Some of the sources currently used in the composition of the BNGB are the topographic mapping in 1:100,000, 1:250,000 and 1:1,000,000 scales. This cartographic information integrates the National Cartographic System (SCN) of Brazil, under the responsibility of the Ministry of Planning, Budget and Management, which is assisted by the National Commission on Cartography in Brazil – CONCAR (a collegial body composed of several members of Brazilian federal and state governments).

In December 2008, the Committee of Geographical Names (CNGeo) was created within the CONCAR, that is coordinated by the Brazilian Institute of

Geography and Statistics (IBGE).

The standardization of geographic names is of great importance to the SCN and to the National Spatial Data Infrastructure – INDE – which is being established in Brazil according to Decree 6,666/2008.

The Systematic Topographic Mapping and the Continuous Cartographic Bases of Brazil

A country with Brazil´s dimensions and regional differences needs careful planning that enables the attention to the growing demand for geospatial information by the Brazilian society. To efficiently offer such information, Brazilian Institute of Geography and Statistics (IBGE), from 2008 to 2010, improve the production of geospatial information to provide products that can be used in many ways. The Continuous Cartographic Base at 1:250,000 scale (BC250) project aimed to provide society with planialtimetric mapping of the entire Brazilian territory that is compatible with the accuracy requirements of the National Cartographic System (SCN) and with the standards and regulations of the INDE.

The Systematic Topographic Mapping of Brazil at 1:1,000,000 and 1:250,000 scale has, respectively, 46 and 550 sheets, whose original data had differences in datum, level of generalization and modeling, as well as a lack of updating.

The cartographic data generated correspond to the information on hydrography, transportation systems, limits, localities, economic structure, communication, and water supply and sewage. This information was obtained by updating the existing mapping or through new mapping, using satellite images and data provided by partner agencies.

Some of the sources used in the composition of the BNGB are the Continuous Cartographic Base at 1:1,000,000 scale (BCIM), the Continuous Cartographic Base at 1:250,000 scale (BC250); Cartographic Continuous Bases Brazilian States (BC100) or (BC25).

Rio de Janeiro: IBGE, 2006. Escala 1: 5 000 000.

Compatibility between Continuous Cartographic Bases and the Geographical Names

The Process of Integration of Continuous Cartographic Bases and Geographical Names is a recent initiative that aims to make the geographical names compatible in the several continuous bases produced, eliminating inconsistencies in this information and making cartographic bases with the maximum possible convergence and with known and justified divergences. It is a solution that integrates a technological bias and the work processes of the Coordination of Cartography (CCAR), developed by Data Infrastructure Management (GID) and the CRNG, to feed the BNGB.

This integration process is initially being developed in partnership with the Permanent Program for BC250 updating and has the support of the State Basis Management and the Continuous Basis Management, both Cartography Coordination, and of the various Geodesy and Cartography Management.

The Portuguese-speaking Division (DPLP) and CRNG - advances:

Publications

Índice de Nomes Geográficos do Brasil da Base Cartográfica Contínua do Brasil ao Milionésimo - BCIM (Gazetteer from the Continuous Cartographic Base of Brazil, at a scale of 1:1,000,000).

Glossary of Generic Terms of Geographical Names used in the systematic mapping of Brazil at the scale of 1:1,000,000.

Glossary of Generic Terms of Geographical Names used in the systematic mapping of Brazil at the scale of 1:250,000.

List of Country Names, as recommended by United Nations Group of Experts on Geographical Names, which contains, besides the country name, the names of their capitals (in work).

Translations into Portuguese

Translation into Portuguese of the UNGEGN's Media Kits documents and the Manual for the National Standardization of Geographical Names.

Translation into Portuguese of the UNGEGN's document "Resolutions Adopted at The Ten United Nations Conferences on the Standardization of Geographical Names", published at UNGEGN's website.

Symposia

Pre-Conference Symposium on Atlases, Toponymy and the History of Cartography, was held in Rio de Janeiro from 19 to 21 of August 2015. The local organization was in charge of the Reference Centre on Geographic Names (CRNG) of the Coordination of Cartography of the Brazilian Institute of Geography and Statistics. IBGE and was attended by various national and international experts

International Pan-American Symposium on Toponymy (SIPAT 2017): organized by the Joint ICA/IGU Commission on Toponymy, IBGE and PAIGH, the symposium was held in Rio de Janeiro, from 3-5 May 2017. The main themes of the event were toponymy on maps, toponymy and education, indigenous and minority toponymy. Thirty (30) papers were presented and there were 92 registered participants from 8 countries: Brazil, Canada, Colombia, Portugal, Argentina, Dominican Republic, South Africa and Italy.

Courses on Toponymy

The UNGEGN & IBGE International Course on Toponymy: organized by the UNGEGN Working Group on Training Courses on Toponymy, the UNGEGN Secretariat and by the Reference Centre on Geographical Names of the IBGE, the course was held in Rio de Janeiro, in the IBGE premises, from 15 – 19 May 2017. The 32 participants were representatives of 7 member-countries of the UNGEGN Portuguese-speaking and Latin America Divisions, as follows: Portuguese-speaking Division: Angola, Brazil, Mozambique, São Tomé e Príncipe and Portugal and Latin America Division: Argentina and Uruguay.

After nine years of inactivity, this course provided the opportunity for the Portuguese-speaking Division, that was established at the 24th Session of the United Nations Group of Experts on Geographical Names of the UNGEGN, to convene a meeting that addressed the reactivation of its activities.

A Training Course on the Standardization of Geographical Names was organized by the Reference Centre on Geographical Names of the IBGE (CRNG, in the IBGE premises, in Rio de Janeiro, from 4 to 8 June 2018. The participants were representatives of members of the IBGE staff, members of other Brazilian institutions and 3 members of the staff of the Institute of Geographical Names of Mozambique (INGEMO).

After this Training Course, from 11 to 12 June 2018, in the IBGE premises, with the participation of 3 members of the staff of the Institute of Geographical Names of Mozambique (INGEMO), and the staff of the Reference Centre on Geographical Names (CNRG) and other members from IBGE: Workshops on database creation and cartography especially designed for the INGEMO, when the exchange of experiences was more intense.

The significance of native experience in the creation of colonial toponymy in Portuguese America

Tiago Gil* and Vinicius Maluly**

Abstract

The study of colonial toponymy can foster the understanding of a series of aspects related to territorial tendencies observable up to this present day. For this study, we concentrated our efforts on trying to understand the creation of hydrographic names distributed throughout Brazil with emphasis on the native aspect of this endeavor. We were basically interested in discovering to which degree native experience contributed to the constitution of the names of rivers, how this logic withstood centuries and in which regions this feat had a greater relevance. These are goals that sum up a large amount of questions, data and variables. To partially achieve these objectives we first sought a quantitative approach and, finally, a qualitative understanding. For the first part, a survey of thousands of documents from the "Resgate" project was undertaken and, lastly, an inquiry of two colonial voyage sources. With this method we tried to reinforce the pertinence of native people for the construction of colonial Brazil's toponymy, and also demonstrate to what extent the Portuguese colonial enterprise dealt with this native experience.

Keywords: *toponymy; native people; colonial Brazil*

Introduction

This paper intends to discuss the significance of the native toponymy present in Portuguese America (currently Brazil) between the 16th and 18th centuries. In a wide range of rivers analyzed, the distribution of indigenous names was not even and varied under different circumstances. From the arrival of the first Portuguese fleets and throughout the colonization process, this fluctuation is possible to understand by different means: the first is by consulting historical sources that identify, for any reason, different rivers in the colonial territory; the second is through the perspective of first-hand accounts of those periods.

To complete the first task (a solid quantification of the recurrent river references present in historical documentation), we took advantage of the georeferenced database of the "Digital Atlas of Portuguese America", a tool created in our laboratory that works as an interactive colonial map. It includes information concerning places, paths and native groups.

The second goal was achieved by analyzing two different colonial narratives, identifying not only hydrographic names, but also their relevance in that specific

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time. The first study case was the return voyage of Pedro Teixeira, in 1639, from Quito to Belém do Pará, and the second study case was the “Roteiro Geral” of Gabriel Soares de Souza, written in 1587. Both instigate different aspects of the toponymic distribution and contemplate, essentially, why certain river names changed with the Portuguese intervention and why others remained in their native form.

It is opportune to question which of the native groups (among the hundreds which existed at the period) predominated in the construction of the Portuguese toponymy and under which circumstances this occurred. In addition, we intended to observe the change of toponymy over time, checking variations in the use of indigenous names in intensity, quality and distribution in space. The sources used in this work clarify some points and arouse debate on others, but a more extensive use of sources, especially from a qualitative point of view, is still to be encouraged so that these remarks can be considered for relevance to other regions of the vast Portuguese America that are not frequently mentioned in our database.

The Digital Atlas and its database

The “Digital Atlas of Portuguese America” is a website with content about the so-called “colonial period” in Brazil, between 1500 and 1808, stressing the production and diffusion of digital maps. The project – which started in 2009 at the University of Brasilia – has as its main goal the creation of a webpage of reference for Brazil’s history researchers with multimedia content, such as videos, texts, images and maps as well. Currently, the website consists of two different pages: a digital encyclopedia (based on a mediawiki system) and a digital and interactive map (based on i3geo; a Google Maps-like system) which allows users to identify places in the past and find articles referring to them.

Illustrations of the Digital Atlas of Portuguese America.

To organize data and to aid the insertion of a new register in the database, a new tool was created: the “Oduduwa”, a visual and friendly system based on Postgre SQL (an open source database), which allows the members of the project to insert, delete, edit and search for information.

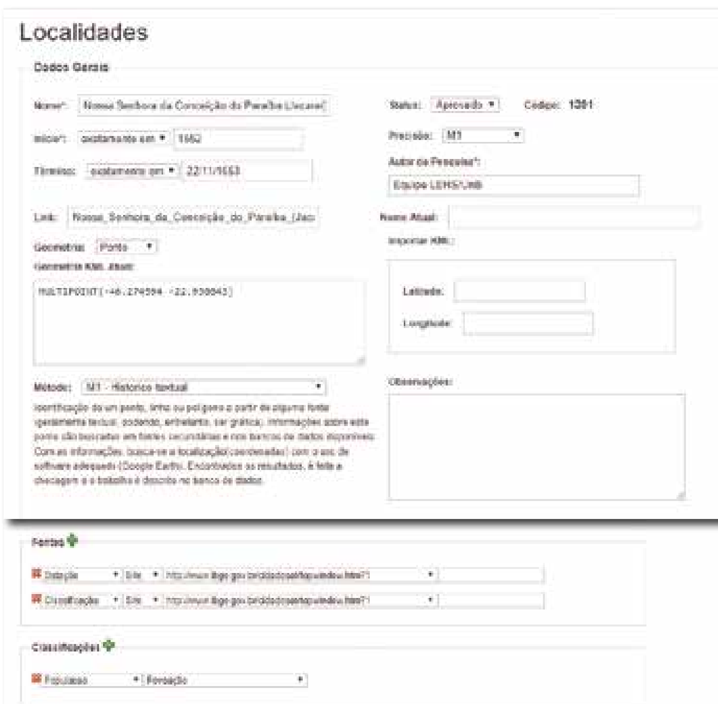


Illustration of Oduduwa's registers.

Every Oduduwa register is composed of basic fields like “name”, “initial date”, “final date”, “sources”, “classification”, geometry and metadata fields. In order to work with historical data, “Oduduwa” was designed with some remarkable characteristics. To respect toponymy and some kind of hierarchy in places classifications (town, villages, etc), every change of name or typology demands a new register with all its singularities (dates, sources, etc). Therefore, it is possible to follow the transitions of names over time. Furthermore, it is easy to perceive the status change of places over long periods of time.

A huge variety of sources are used to fill up the database, like chronicles, historical dictionaries, old maps, notarial deeds, correspondence, censuses, and a general bibliography. The result is a complex mosaic of historical information, presented to the public through articles in the digital encyclopedia. The most important set of sources used in the “Atlas” is the “Resgate” project, as discussed below.

The “Resgate” project

The “Resgate" project was created to identify, organize, scan, and convey (originally via CD Rom) the collection of manuscript documents about Brazil stored in the Overseas Historical Archives in Portugal (Arquivo Histórico Ultramarino). This project started in the 1990s and is still in progress, focusing on sources about colonial Brazil spread throughout many archives after having finished the survey of the Portuguese ones.

The original collection of the Overseas Historical Archives was divided into many different sets, one for every captaincy, an old Iberic administrative division. Every document was identified and described through synopses made by historians and archivists specializing in modern age.

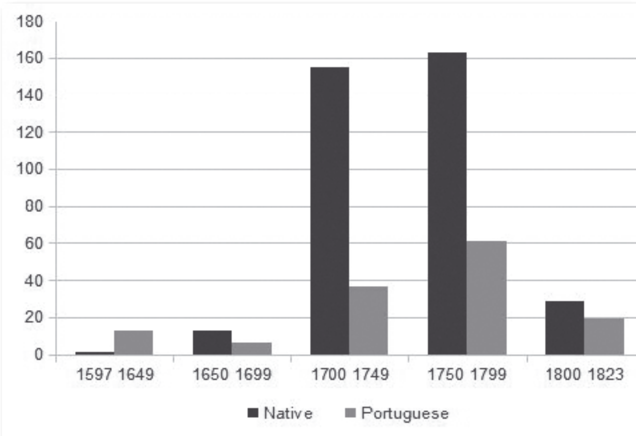
60- 1739, Julho, 7, Lisboa
CONSULTA do Conselho Ultramarino, ao rei D. João V, sobre a carta do superintendente-geral das Minas de Goiás, [Agostinho Pacheco Teles], acerca da criação dos cargos de juízes e demais oficios e o estabelecimento da vila que se tem mandado erigir.
Anexo: 3 docs.
AHU-Goiás
AHU_ACL_CU_008, Cx. 1, D. 60.

Example of an abstract from the “Resgate" project.

Thus, our research started with the complete set of synopses made in the “Resgate” project, composed of more than 188,000 abstracts. We did not consult the manuscripts for the current research – only the briefs – in order to identify all the references for hydrographic features. A huge survey allowed us to locate 585 names of rivers, bays and lagoons during the period between 1597 and 1823. An expressive part of the features appeared repeatedly in the sources. Considering all the repetitions, we found almost 31,000 synopses with information about rivers. A specific database was created to manage all these records in such a way that we could tag all names with a classification, for example, “native name”, “Portuguese name”, “mixed name”, etc.

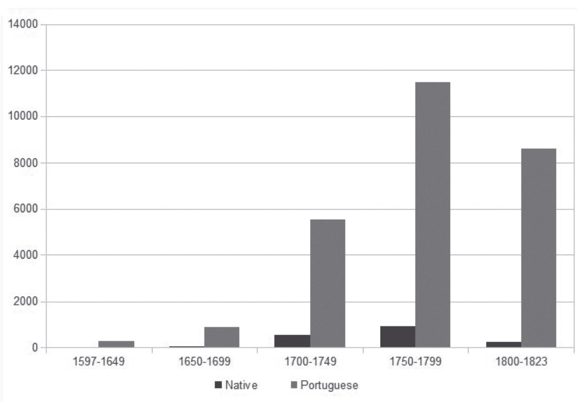
The new database enables two different quantifications: the number of specific rivers and the number of mentions for every specific river. The "Rio das Velhas" – one of the 585 identified rivers, for instance – was mentioned in 356 synopses. It is important to highlight this difference of both quantifications because we found a very huge variance in the results.

Considering the series of river names between 1597 and 1823, we found 585 different names spread over time in 5 periods:



Number of river names (only first mention) classified by name origin (native or Portuguese name).

The majority of river names is composed of hydrographic features with native names. Portuguese names had a (fairly) better performance in the first half of 17th century. Thereafter, native names dominated, having great prominence in the 18th century. But this is just one part of the history due to the fact that not all rivers have the same magnitude. The way we found to evaluate the significance of rivers (inside the "Resgate" project) was the frequency of repetitions of river names in synopses. Considering this variation, we found a completely different scenario:



Number of mentions of rivers classified by name origin (native or Portuguese name).

Now the prominence is European. The Portuguese named only 25% of the rivers, but those rivers were mentioned more than 16 times the number of mentions with native toponymies. In the top 10 toponymies, the native names have only one instance. The first conclusion is: the Portuguese names were a small but very prestigious group in the toponymy society of colonial Brazil. On a cautionary note, some relativity must be presented. Several cases in the whole list are – at the same time – rivers and regions nearby these rivers. In other words: some rivers named their proximities. The "Rio das Velhas" named the region around it, the "County of Rio das Velhas". Thus, in many cases, we cannot separate the region from the river. The same happened with "Rio Grande de São Pedro", "Rio Grande do Norte" and "Rio Negro". These examples identify, simultaneously, a captaincy and a river, but in all cases the river named the captaincy. We decided not to remove those cases from the sample due to two reasons: first, and most important – it was not possible; second, the fact that a river named a region is noteworthy and does not allow us to force a distinction. An unusual relationship is also important: some instances like "Rio de Janeiro" and "Rio Grande de São Pedro" were not actually rivers. "Rio de Janeiro" was a bay and "Rio Grande de São Pedro" was a lagoon, despite the fact they had been treated as rivers for a long time.

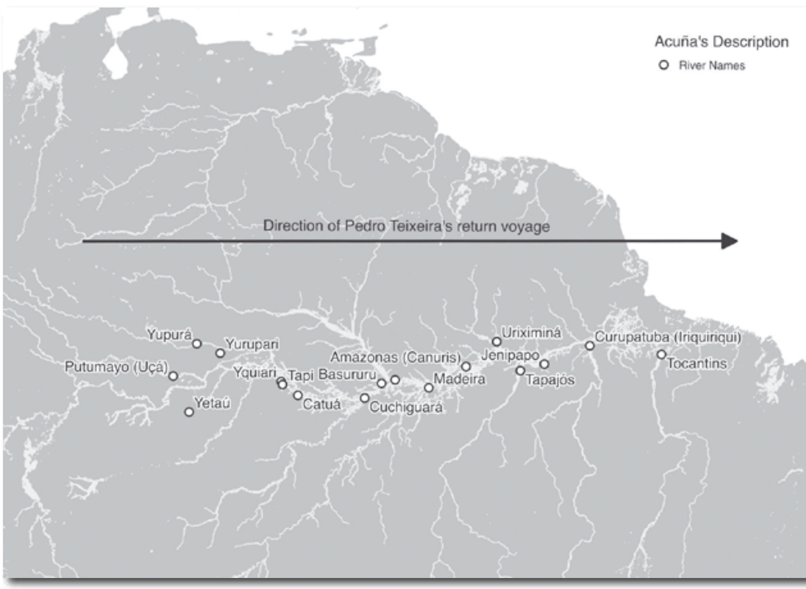
Therefore, the significance of a river, despite its Portuguese or native origin, for its surroundings is clearly identifiable by this analysis. The repetition of Portuguese river names in these sources states the administrative concerns that they had over these controlled ("or to be controlled") areas, in opposition to the rest of the territory. It also implies a Portuguese awareness of the majority of rivers dominated and, as such, named by natives in opposition to the still reduced number of Portuguese-named rivers. The "Resgate" project source is very useful in this sense because it consists of a large set of data spread over more than 200 years. However – like all sources – it presents some limitations. The most obvious is not having information for the first century of colonial Brazil. Therefore, we decided to use other sources to improve our research, especially in a more detailed approach.

Sources for case studies 1: the voyage of Pedro Teixeira (1638-1639)

A (mostly) reconnaissance voyage was planned in 1638 to go up the Amazon River, starting from the city of Belém do Pará and arriving in Quito. In the context of the Iberian Union (1580-1640), it was possible to travel between these once separated lands under the consent of the Crown. This adventurous journey was led by Pedro Teixeira, a Portuguese Military Commander, and took about 10 months to be completed. In his commission, according to chroniclers, there were more than a thousand natives and this number, despite its imprecision, gives us an idea of the huge size of this enterprise.

There are several documents that relate to this journey, including a narrative of the return voyage of Pedro Teixeira's commission written by a Spanish Jesuit named Christoval de Acuña. This documental source, initially, gives accounts of various features of the Amazon River and its surroundings. These pieces of information were of great value for both Spanish and Portuguese authorities at that time, not only because of possible mineral riches, such as gold and silver, but for also helping make sense of all the native groups that inhabited those regions. The second half of the document mentions every river that the group encountered, with the maximum of information that Acuña thought useful for his narrative (varying from historical accounts, to geographical details, native characteristics, etc). As the narrative is created around the different recollections of that voyage, we do not have an astounding number of entries, but they are profoundly discussed, including the main topic of this paper: the indigenous and Portuguese variations of the names of those rivers.

In the following map, created using Acuña's narrative, it is possible to understand, in a broad sense, the direction of their journey in returning to Belém do Pará. We cannot trace a line between the river names, consolidating a path, (especially because the Amazon River has such a thrust power that it certainly was not covered in its main course by the colonial canoes, but by using side-rivers and entries) but we can perceive the logic of his text and the sequence of the river names listed.



Map of Acuña's description of the main river names found in Pedro Teixeira's return voyage.

In a certain section of the narrative, Acuña speaks of the River Yurupari and of the River Yupurá, 3 days apart, and that the Yquiari River could be reached by following its course. However, he states that this last river was also known as the "River of Gold", where there was a hill from which the natives extracted great amounts of this natural resource. Therefore, we can locate a first interesting toponymic superposition in our source.

A second reference is to the Rio Negro, also known as Curiguacuru (as shown in the map above). Then Acuña goes further and states that the Tupinambas, a specific native group, called it Uruna. Therefore, there could be 3 different names for the same river, depending on the perspective.

There are some other good examples of toponymic superpositions made by the Portuguese in the locations near the Amazon River, but there is a clear tendency over the whole narrative: only rivers that showed an immediate attraction for the European colonization (by economic or geographical conditions) were subject to this name alteration. Other minor rivers used by different native groups, not necessarily connected in an immediate scale to the Portuguese or Spanish locations, were to maintain, at least during the 17th century, their native name. This reinforces the understanding we acquired by comparing the native and Portuguese names found in the "Resgate" sources. This is shown in the first graph we elaborated, where we identified a greater amount of native hydrographic references in comparison to the European ones. In the surroundings of the Amazon River this was no different: native toponyms were, by far, as seen in the map concerning Acuña's statement, more numerous than the European ones.

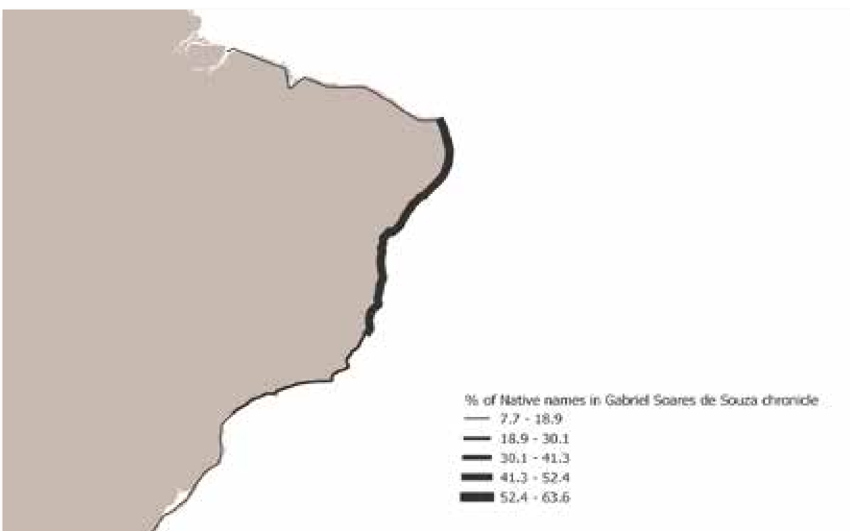
Sources for case studies 2: the "Roteiro Geral" (1587)

In 1587, a colonialist called Gabriel Soares de Souza wrote a large book about the Portuguese world in Brazil. The manuscript started with a very complete description of the coast, place after place, considering rivers, bays and other geographic features. The author highlights the rivers as the main reference to describe the new world. The majority of the chapters were dedicated to presenting the lands near the Atlantic coast and the rivers act as the boundaries of these vast pieces of land: "Chapter 5: From the Amazon river to the Maranhão [River], for instance. The hydrographic feature has a glorious role in this narrative. We collected all the mentions of rivers in this work, summarizing 106 references.

Taking all references into consideration, we were able to identify 99 as native or Portuguese. The Portuguese names were 58 cases and the native ones, 40, with a further unique case of a mixed name ("Santo Antônio Merim" – Little Saint Anthony). As the narrative does not have clear chronological information, we did not evaluate the dynamics of name changes in time, only geographically. In some sense, the figures confirmed the previous results. The "Resgate" analysis tended to stress the performance of Portuguese toponymy in the beginning of the 17th century. The Gabriel Soares de Souza analysis presents a similar scenario: Portuguese names were more numerous, but the native names had a good score. The distribution, however, was not homogenous in the geographic space. Souza's narrative started in the Amazon River and finished in the River Plate. For many reasons, his description was more detailed in some regions than others. He is very brief in the North of Brazil, very focused in the Northeast area, and less interested in the Southeast and South, especially the latter. In order to have a statistically acceptable comparison test, we created 8 groups of 12 or 13 geographic features each. Regions North, South and Southeast consist of one group each. Due to its importance in the Souza narrative, the Northeast has 5 groups, as we can see below:

Regions according to the accounts of Gabriel S. de Souza.

Bearing these regions in mind, we calculated the presence of native names in every region. The result is a very interesting map that highlights the Northeast as the region with more native toponyms. North, South and Southeast had more Portuguese names, especially those related to saints. In the Northeast, however, native names made up more than half of the total toponyms and this is remarkable because this region bore the most important (and oldest) Portuguese settlements in that time, like Pernambuco e Bahia.



Percentage of native names (per region) in the description of Gabriel S. de Souza.

One hypothesis can be claimed: the less known regions (as North and South) have more Portuguese names because the Europeans had only recognized those regions and not conquered them yet. When Portuguese colonialists started to make their first settlements, they needed to interact and assimilate native toponyms. A good example could be "Paraiba". Souza said that the maps only showed "São Domingos", but the actual toponym of that time (and the consolidated one) was "Paraiba". The native toponymy predominated to the extent that the interaction happened.

Conclusions

This paper presents a series of considerations on the hydrographic toponyms in Portuguese America. Until 1823 the number of native references is clearly greater than the Portuguese versions; at the same time, there is a huge amount of repetition of the use of these Portuguese toponymic superpositions.

The toponymic superpositions were, thus, distinctly an instrument of first-hand domination, distributed as the Europeans explored the native territory. Therefore, there are some patterns to be observed, as in the case of the Amazon River and the 16th century colonial coast, but, in an overall panorama, native toponyms had a larger presence, whereas the Portuguese versions had a clear political use, composing the structure of Portuguese America's territorial formation. However, these sources also revealed that these superpositions were not undisputed throughout Brazilian history. On the contrary, there exists a fluctuation of this toponymic use, depending on the place and the time. The fact that the historical sources have an European origin does not permit an immediate inference of this aspect, but with the application of certain statistical and cartographic techniques, other historical trends tend to flourish.

Chroniclers and colonialists give us the nuance of this tendency, indicating that the proper name-changes, as an immediate product of the colonial enterprise, occur in certain circumstances: only "useful" rivers had their names changed at that time, implying on a Portuguese strategy of domination of the bigger and more resourceful hydrologic features. In the same degree, the use of native designations could also foresee a more mid-to-long-term settlement, implying a possibility of "coexistence" with natives (as of another strategy of political domination).

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The activity of the ICA-IGU Joint Commission on Toponymy*

Cosimo Palagiano**

Abstract

The birth of the ICA-IGU Commission dates back to the late 2000s, when with the help of Helen Kerfoot, Georg Gartner and Peter Jordan at the New York session of UNGEGN, we decided to set up a Commission in the IGU with the objective of studying toponymy from the dual aspect of geography and cartography. In 2011, in Santiago de Chile, Ron Abler, Paulo de Menezes, Peter Jordan and I (the founding fathers) decided to set up an ICA-IGU Joint Commission on place names. The Commission has edited a volume of acts of the Symposium of Rome in 2014, held at the Accademia Nazionale dei Lincei. This volume was excellently edited by Peter Jordan and Paul Woodman. Peter Jordan's contribution of ideas is to be emphasized. Many other contributions of members of the Commission are published in prestigious international journals. Over a hundred members joined the Commission.

Keywords: *geography, cartography, place names, toponymy, IGU, ICA*

Introduction

The birth of the ICA-IGU Commission dates back to the late 2000s, when with the help of Helen Kerfoot, Georg Gartner and Peter Jordan at the New York session of UNGEGN, we decided to set up a Commission in the IGU with the objective of studying toponymy from the dual aspect of geography and cartography. Geographical names are the object of study of many bodies, for example UNGEGN and ICOS (International Council of Onomastic Sciences); many conferences have been held in many countries on the subject of geographical names. During the 30th General Assembly of ICSU held in FAO Rome (27-30 September 2011) Ron Abler, Mike Meadows, Georg Gartner and Cosimo Palagiano agreed to establish a joint IGU Commission/ICA Working Group on Toponymy. During the Regional Geographical Conference of Santiago de Chile (14-18 November 2011) Ron Abler, the President of the IGU, established that a Commission/Working Group on Toponymy that has been under discussion between ICA and IGU for some time is now formed after several preliminary meetings between interested members of both organizations. After reviewing the proposal submitted by IGU representative Cosimo Palagiano, the executive committee approved establishment of the body contingent upon the submission of an appropriate Steering Committee and on approval by the ICA, whose executive committee would consider the proposal in late November 2011. New ICA President Georg Gartner was enthusiastic about

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the joint body. Palagiano was appointed the IGU Co-Chair of the new group; the ICA appointed the other co-chair Paulo Márcio Leal de Menezes. The joint group sponsored a paper session at the Santiago Regional Conference. For my part I had tried to create a study project on geographical names with the help of some linguists at the headquarters of the Geographic Society in Rome. This project was then in talks with Ron Abler and Mike Meadows during the 30th General Assembly of ICSU in Rome in September 27-30, 2011. In the same year, in Santiago de Chile, Ron Abler, Paulo de Menezes, Peter Jordan and I (the founding fathers) decided to set up a joint ICA-IGU Commission on place names. The Commission was approved during the Cologne International Geographical Congress in 2012.

Materials and methods

The joint IGU Commission /ICA WG on Toponymy would study the geographical names from the point of view both of geography and cartography. Some topics in which the IGU Commission/ICA WG on Toponymy is involved: 1) Functions of place names on maps; 2) Rendering of place names on maps; 3) Names placement on maps; 4) Elaborating principles for creating new place names; 5) Place names as expression of time – or space-related identity; 6) Place name/feature relations; 7) Motives for place naming and administration (including places named for women); 8) Place names and transportation; 9) Place names in the cyber world; 10) Social dimensions of place names. Other related topics include: Uses of toponyms for school education; Unofficial, aboriginal, vernacular, historical toponyms; Micro-toponyms; Dual or bilingual toponyms, exonyms; Commercialization versus preservation of the cultural heritage; Place names and administration - street names as a case in point; Street naming in multilingual urban quarters; Naming when administrative units (municipalities, districts) are merged; Treatment of place names of non-dominant and indigenous groups; Place-name boards and committees of all administrative levels and their responsibilities; Place-name conflicts.

1.1 Mission according to ICA statutes:

This ICA acts jointly with IGU to foster geographic and cartographic research in all fields involving toponymy; to disseminate the scientific knowledge on processing and use of toponyms within geography and cartography; to verify the use of toponymy concepts in other sciences, such as anthropology, linguistics and others, in relation to cartography and geography; to maintain contacts and scientific exchange with UNGEGN and ICOS, such as by organizing joint events; to support and encourage the elaboration and publication of gazetteers, toponymic data files and toponymic reference systems (such as through EuroGeoNames); to organize regional joint IGU/ICA events (workshops, symposia and others) with IGU and ICA members; to participate in IGU and ICA Regional and Main Conferences; to organize and maintain a website to facilitate contact between researchers in the field of toponymy and disseminate source material and literature available to the community and the general public alike; to organize and publish books, chapters and to encourage publishing of papers in specialized journals and the International Journal of Cartography.

1.2. The IGU/ICA Joint Commission on Toponymy
The Steering Committee of the Commission is: Chairs: Cosimo Palagiano (IGU) since 2011, Paulo de Menezes (ICA) since 2011 (Working Group)/2015 (Commission), Peter Jordan (common IGU/ICA vice-chair) since 2015. After evaluation, the ICA General Assembly held during the 27th International Cartographic Conference, Rio de Janeiro, 23-28 August, elevated the status from a working group to the rank of commission. Peter Jordan was, by the two commission chairs and with the consent of the IGU and ICA chairs, nominated common vice-chair of the Joint IGU/ICA Commission. During the Symposium "Place names, diversity and heritage", Windhoek, Namibia, 18-20 September 2017 Peter Jordan was by the Joint Commission ICA Chair and Paulo de Menezes common vice-Chair. Cosimo Palagiano was confirmed IGU Chair. The Commission had by 1st December 2017 8 full (steering board) members from 8 countries and 103 corresponding members from 36 countries.
Website: ICA-IGUtoponymy.org.

Results

The Commission has promoted several regional and international congresses both in geography and in cartography. During other meetings, some members of the Commission took an active part with contributions and participation in the discussions. Among the numerous meetings and conferences that have interested the Commission or some of its members I have chosen only some of particular interest, well aware that the research on place names is very important both in geography and in cartography and that the congresses take place in different regions of the world. So I apologize if I omitted to mention some conferences that I could not attend.

1. International Geographical Congress held in Cologne, Germany, 26-30 August 2012.
   The topics discussed were:
   - Place names as markers and ingredients of space related identity,
   - The power of geographical names,
   - Place names, space and society,
   - The role of place names in relating people and place,
   - Stone Age place names as markers and ingredients of space-related identity,
   - Identity construction under a socio-constructionist approach and the standardization of geographic names in Brazil.
2. Regional Conference, Kyoto, Japan, 4-9 August 2013.
   Geographical approaches to toponymy were discussed with a total of 15 papers in 4 sessions. The meeting, locally organized by Kohei Watanabe (Japan) was well-attended.
3. Seminar "Historical maps, atlas maps, and toponymy", Leipzig, Germany, 21-23 August 2013.
   As a preconference event of ICC Dresden three ICA commissions/working

groups met, i.e. the ICA Commission on the History of Cartography (Chair: Elri Liebenberg, South Africa), the ICA Commission on Atlases (Chair: Peter Jordan, Austria) and the ICA-IGU Working Group/Commission on Toponymy (Chairs: Paulo de Menezes, Brazil and Cosimo Palagiano, Italy) in co-operation with the Leibniz Institute of Regional Research [Leibniz Institut für Länderkunde, IfL] Leipzig. registered participants 17 papers were presented with many fruitful interdisciplinary discussions.

The topics discussed in the 3 sessions were: Place Names and Atlases (Chair: Peter Jordan, Austria); Cartographic Place-Names Research (Chair: Paulo de Menezes, Brazil); Place Names on old maps (Chair Elri Libenberg, South Africa).

The proceedings have been published as open access by the host institute, as a volume of its book series "forum IfL".

4. 26th International Cartographic Conference, Dresden, Germany, 26-30 August 2013.
   In two sessions organized by the Working Group/Commission a total of six papers on toponymy were presented.
5. EuGeo Congress, Rome, 5-7 September 2013.
   In a Panel on Toponyms organized by Cosimo Palagiano (Italy) five papers were presented.
6. GU Regional Geographic Conference in Cracow [Kraków], 18-22 August 2014.
   Five sessions were organized: Names in Urban Space (Chair: Donada), Naming Policies and Place-Names Use (Chair: Ferland), Field Collection of Names and Names on Maps (Chair: Choo), Cultural-Geographical Approaches (Chair: Jordan), Naming Motives, Place Names as Keys to Culture and Cultural History (Chair: Palagiano). 18 papers were presented.
7. Workshop on place-name changes in Rome (Accademia Nazionale dei Lincei) in November 2014.
   The most discussed topics were: Geographical names on geographic and atlas maps from Ptolemy to the modern age; changes in geographical names; geographical names as a brand. The impact of toponymy in discussions during congresses and meetings is not always significant. The Commission has edited a volume of acts of the Symposium of Rome in 2014, held at the Accademia Nazionale dei Lincei. This volume was excellently edited by Peter Jordan and Paul Woodman. Jordan is one of the most active members of the Commission and his contribution of ideas is to be emphasized. Many other contributions by members of the Commission are published in prestigious international journals.
8. 1st ICA European Symposium on Cartography, Vienna, 10-12 November 2015.
   This Conference was organized by Georg Gartner. 93 papers were discussed in 6 sections:
   - Cartographic modelling and design;
   - Spatial Analysis and Geovisual Analytics;
   - Cartographic Technologies;
   - Cartographic Fundamentals;

- Cartographic Heritage and Historical Cartography in the Digital Era;
- Cartographic Applications.

The Proceedings were published by Georg Gartner and Haosheng Huang in 2015 (Research Group Cartography, Vienna University of Technology).

9. 29th UNGEGN Session, Bangkok, 25-29 April 2016.
   The twenty-ninth session of the United Nations Group of Experts on Geographical Names was held at the headquarters of the Economic and Social Commission for Asia and the Pacific in Bangkok 25-29 April 2016, in accordance with Economic and Social Council decision 2014/240. This conference primarily focused on the importance of work in supporting United Nations Conferences on the Standardization of Geographical Names and the essential assistance it continues to afford Member States in the standardization of geographical names and related areas of cartography and geographical information management. 171 participants from about 50 UN State members and 9 observers attended. Cosimo Palagiano represented the IGU as an observer. A further 10 members of the Commission on Toponymy actively participated.
10. IGU Congress, Beijing, 21-25 August 2016: Commission session titled "Place names as social constructs".
    About 10 abstracts were submitted and around 40 participants of the Commission attended. At the Session presented by the ICA-IGU Commission "Place Names As Social Constructs" 10 papers were approved. They were as follows: Economic value of place names (by Sungjae Choo et al.), The toponymic brand equity in Seoul, Korea (by Heesu Kim et al.), Metamorphic toponymic identities in urban villages of NCT of Delhi (by Kriti Kanaujia), Post-colonial urbanization and changes of vernacular toponyms around Bupyeoun-gu, Incheon (by Je Hun Ryu), Diachronic analysis of the geodonymic (street name) space of Ashtana City (by Madina Tussupbekova et al.), The definition of toponyms mentioned in the secret history of Mongols (by Dash Doljin), Spatial patterns of Manchu place names in Northeast China (by Zhu Zhenhua et al.), Probing the place identity via the naming of bus stops (by Dong Po Deng), Cultural interpretation of place name brand in the process of marketization – As an example of "ChenMai BailLian Goose" (by Zhaoliang Zhangzhengsheng), Spatial politics of street names between Taipei and Shanghai (by Huang Wenchuan).
11. 6th International symposium on the History of Cartography, Inter-university Centre, Dubrovnik, Croatia 13-15 October 2016. The Dissemination of Cartographic Knowledge – Production – Trade – Consumption – Preservation.
    In the same days the ICA Commission on the History of Cartography held its 6th International Symposium in Dubrovnik (Croatia). It was jointly organized with the ICA Commission on Map Production and Geoinformation Management, the ICA Commission on Use, User, and Usability Issues, and the Institute of Social Sciences "Ivo Pilar" (Zagreb, Croatia).
    Session 1: Mapping Urban Spaces;
    Session 2: Territory, Sovereignty and Borderland;
    Session 3: Semiotics and Place Names;

Session 4: Explorations and Local Practices;
Session 5: Map Production and Dissemination of Knowledge;
Session 6: Map Users and New Technologies;
Session 7: Libraries, Accessibility and Specific Cartographic Resources;
Session 8: Measuring the World: Globes and World Maps. Poster Session.
The symposium was attended by approximately 45 people. The majority of participants were from Europe; others came from as far afield as the US, Australia, Qatar, Japan and Taiwan.

12. Regional Pan-American Symposium on Toponymy, in co-operation with PAIGH, IBGE and ICSU Americas, Rio de Janeiro, 15-17 March 2017.
The International Pan American Symposium on Toponymy, organized by the Joint ICA/IGU Commission on Toponymy, was held from May 3 – 5, in Rio de Janeiro, Brazil.
The Symposium had the support of the Federal University of Rio de Janeiro, through the Post Graduation Program in Geography and GeoCart, Laboratory of Cartography of the Department of Geography, the Pan American Institute of Geography and History (PAIGH), as well as the Brazilian Institute of Geography and Statistics (IBGE). The event had 92 registered delegates from 8 countries, Brazil, Canada, Colombia, Portugal, Argentina, Dominican Republic, South Africa and Italy. There were 24 papers and 6 keynote presentations.

13. Pre-conference symposium of ICC, Washington D.C. held jointly with the ICA Commission on the History of Cartography, 29-30 June 2017.
The ACI Workshop "Charting the Cosmos of Cartography: History – Names – Atlases" was held in the Library of Congress, Geography and Map Division in Washington DC, 28-30 June 2017. This workshop was organized by the ICA Commission on the History of Cartography, ICA Commission on Toponymy, and ICA Commission on Atlases.
25 papers were presented and two technical tours were held. including a tour on Treasures of the Folger Shakespeare Library. Some of these papers have been published in The Cartographical Journal, directed by Alexander Kent.

14. International Cartographic Conference, Washington D.C., 2-7 July 2017.
The ICA-IGU Commission had its usual toponymic sessions. Location: Marriott Wardman Park Hotel, 2660 Woodley Road NW, Washington, DC 20,008 USA. 28 sessions were held for Commission and Working Group business meetings (on Atlases, Cartographic Heritage into the Digital, Education and Training, Generalisation and Multiple Representation, Geospatial Analysis and Multiple Representation, History of Cartography, Map Projections, Maps and Internet, Planetary Cartography, Topographic mapping, Toponymy, etc.) and 3 additional Special Topics (Semiology and Bertin at 50 years, Land Use and Land Cover, Critical Cartography) for ICC 2017. About 500 papers were presented and discussed. A selection of them will be published in The Cartographical Journal, directed by Alexander Kent.

15. United Nations Group of Experts on Geographical Names (UNGEGN)
The 11th UN Conference on the Standardization of Geographical Names was held from 8-17 August 2017 in Conference Room 3 of the United Nations in New York, NY 10017 USA. About 60 State Members of the United Nations

gathered in 23 linguistic/geographical divisions, that constitute UNGEGN. Among the interesting discussions I would like to emphasize the following: 1) Romanization of geographical names; 2) Standardization of geographical names, 3) Training in toponymy, 4) Exonyms, 5) Cultural heritage, 6) Naming places by indigenous people. Peter Jordan presented a report on the ICA-IGU Joint Commission on Toponymy and Peter Raper reported on the programme of the International Consortium of Universities for Toponymic Education (ICUTE).

16. The sixth EUGEO Congress, 3-6 September 2017.
    The sixth EUGEO Congress was held in Bruxelles/Brussel in the prestigious Palace of the Academies from 3-6 September, articulated in 39 parallel sessions (78 sub-sessions, that included toponymy themes) and 6 plenary sessions. The participants, from all over Europe and more, were around 300. EUGEO is the Association of Geographical Societies in Europe. The aim of EUGEO is to represent its members at the European level and to coordinate and initiate joint activities of the members to advance research and education on the Geography of Europe and to promote the scientific discipline, the school subject and the professional practice of Geography in Europe.
17. Symposium "Place names, diversity and heritage", Windhoek, Namibia, 18-20 September 2017, locally organized by the Unit for Language Facilitation and Empowerment of the University of the Free State. Topics discussed: Critical toponymy; Place names in political, historical and commercial landscapes. The symposium was jointly organized by the Joint IGU/ICA Commission on Toponymy, the UFS and University of Namibia, Windhoek, Namibia, 18-20 September 2017.
18. The 2018 IGU Thematic Conference dedicated to the Centennial of the Institute of Geography of Russian Academy of Science. Practical Geography and 20th Century Challenges, 5-6 June 2018. The Use of Place Names in Public Space was discussed. Chairs: Cosimo Palagiano and [Peter Jordan] Paulo de Menezes. Attendance: About 10 people around the table.
19. The 2018 IGU Regional Conference in Québec (6-10 August 2018). Chair: Yaïves Ferland The ICA-IGU Joint Commission on Toponymy managed two sessions with four papers each at the recent Regional Conference of the International Geographical Union (IGU2018), held in the city of Québec, on August 7th, 2018; the Canadian Society for the Study of Names / Société canadienne d'onomastique was involved as local organizer. Attendance: 60 people.

Conclusions

The numerous presentations at conferences can be classified from two points of view: a theoretical part and a (more substantial) part of regional and local studies, even if the latter refer to theoretical queries. As for the theoretical discussion, this essentially concerns the following topics:

1. what is a name?;
2. exonyms and endonyms;

3. the reasons for changing names;
4. new methodologies in cartography.

The presentations concerning local studies have been essentially historical, with geographic and cartographic localizations and considerations.

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Where are you flying?
On-board airline magazines and their route map toponymy

Helen Kerfoot*

Abstract

From UNGEGN's formation, emphasis has been on standardizing the written form(s) of names. To fulfill the "dream" of global standardization, every country needs to take responsibility for recording, authorizing and maintaining its toponymic records, and making them easily accessible for world use. Implied in this ideal situation is that users respect the toponyms standardized by each country! For government and public institutions, legislation may ensure conformity. However, for private organizations such restrictions are less common. We know that Google includes names not accepted by national authorities; that crowd sourcing introduces "other" names; that historians need to use former names; that media may well include exonyms in news coverage … and so on. In this paper, I review maps included in on-board magazines produced by various world airlines, comparing some published in the 1950s/1960s with some from 2017/18. These maps show an increased use of exonyms and a simplified approach to cartographic presentation over more than a 50-year time span.

Keywords: *toponymy, exonyms, endonyms, airline route maps*

Introduction

For most of us maps are alluring and open up the world to us. As well, toponyms spark our imagination and bring maps to life – whether we are dealing with historical times or the present. So we can certainly appreciate the note in the Air Canada onboard magazine in 1969 claiming that "Maps are fascinating … especially when you are on your way to some exciting new place you've always wanted to see"! This may well be true, but different airlines represent the world differently and may or may not use the names of the places that we shall find in use when we arrive there. They may emphasize endonyms, they may use exonyms, the names may or may not be in the Roman orthography, some names may not be up-to-date, others may not be accurate, and their cartographic presentation can definitely vary!

At the UN Conference in 2017, for a panel about exonyms, I decided that a look at the way airlines used toponyms on their maps would provide a practical example of public portrayal of the world's toponymy. I was very grateful to UNGEGN colleagues who collected airline magazines on their way to New York and provided me with this material. In subsequent discussion with Ferjan Ormeling, he noted that a collection of airline maps had been made in the Netherlands in the late 1960s, and kindly scanned a number of these maps for me.

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As a result, I have examples of magazines/maps from 24 airlines (see Table 1):

	Airline	*Years of airline magazines/maps reviewed*			
1	Air Canada	1959	1969		2018
	Air France	1965	1969		2017
	Alitalia	1969		2001	2017/2018
	Cathay Pacific	1969			2018
	Finnair	1969			2017
	KLM	1968			2018
	SAS	1957	1969		2017
2	CP Air	1969			X
	Czecoslovakian Airlines	1967			X
	El Al	pre-1970			
	LOT	1967			
	Saudi Arabian Airlines	1969			
	TAP	1968			
	Austrian Airlines	pre-1970			
3	American				2017
	ASKY	X			2015
	Delta				2017
	Ethiopian				2017
	Ethiad	X			2018
	Eurowings	X			2017
	Korean				2017
	Lufthansa				2018
	Norwegian	X			2017
	Singapore	X			2017
	X= airline did not exist as such at this date				

Table 1 - Airline magazines and maps studied from the 1960s and 2000s.

- 7 of them have maps from the earlier collection and from "today" (group 1);
- 7 are only from pre-1970 (group 2);

- 10 are only from the recent 2015-2018 collection of magazines (group 3);

And, perhaps surprisingly, ASKY and Norwegian magazines contained no maps, so were put aside!

In the end, I had 33 single or sets of maps from 22 airlines for review.

Today, there are also airline magazines on-line (e.g. Lufthansa), and images of some maps from the en route magazines (both past and present) can be located on the web. Clearly, the number of sample maps I have gathered could be enlarged, and I make no claims that my review or comments are statistically valid. However, my main intent was to obtain some overview of toponymic usage and presentation by airlines … and I have now been able to compare the approach of today with usage some 50 or so years ago.

Although numbers of airline route map users will in no way reach the level of Google Map users, the World Bank reported ICAO statistics as 4 billion flyers in 2017 (compared to 2.8 billion in 2011, and a mere 310 million in 1970). Information included on airline maps, therefore, has an impact on tourists across the world. Yet the data the maps provide varies from one to another.

As you know, UNGEGN's mandate is to support the standardization of geographical names by each country, and to encourage the use of standardized names internationally. This principle has been backed up by a number of resolutions at the UN Conferences on the Standardization of Geographical Names that have taken place since 1967. Yet, it is recognized, too, that exonyms form a part of the cultural identity associated with a particular language, so UNGEGN recommends that on today's maps if exonyms are used they should be shown in association with the official endonyms.

Maps of 1970 or earlier

I will look first at the maps supplied by Prof. Ormeling from 1970 or earlier, and then compare the early approach to that of today.

Of the scans I received from the Netherlands, 16 sets of maps (from 14 different airlines) were represented, although some covered only limited areas (e.g. Europe) or appear to be only a part of the maps used by the airlines.

Map style. All but one (Cathay Pacific) used atlas style maps with layer tinting and hill shading (see the example of Alitalia in Fig. 1). (Note SAS used only hill shading.) Austrian Airlines on its central Europe maps even included contouring. Most were detailed topographic maps showing not only airline destinations, but also many other populated places, and in most cases names of lakes, rivers, mountains, mountain ranges, etc. El Al showed fewer non-destination places than others, but did include mountain ranges. Names of seas are included on all maps, other than Cathay Pacific.

The Cathay Pacific maps (see Fig. 2) differed from the others in that they showed continental land blocks – in one case in dark blue and in the other with a variety of country colour blocks – with no naming other than destinations.

This approach is unlike others of the late 1960s, but more akin to many of 2017.

Fig. 1 - Part of a map used by Alitalia, 1969.

Fig. 2 - Cathay Pacific map, 1969 (Route distances shown).

All maps include depiction of routes in various colours. At that time there was no Star Alliance, no One World, or other partnerships and code-sharing arrangements that have influenced depiction of routes and places on later airline maps.

Country boundaries were included by most, but omitted by TAP, Air France 1969, Air Canada 1969, as well as on Alitalia's world map. The names of the countries were included on all maps except those of Cathay Pacific.

In these earlier maps one wishes to determine whether endonyms are used throughout with some appropriate romanization system, if needed – or whether exonyms have "crept in", and whether endonyms were added in cases where exonyms were used. The results are quite varied; city names are summarized in Table 2.

In other words, 8 retained city endonyms on all maps (see example of Air France in Fig. 3), 2 airlines used endonyms on regional maps and exonyms on the world maps, and 6 introduced English exonyms.

The approach to names of countries and international waters (seas and oceans) follows a rather different path (see Table 3):

Whether or not endonyms or exonyms are favoured on the maps, the inclusion of diacritics and use of characters such as å, ø, İ, Ł, ş, Č are interesting to survey to see how well the airline maps correctly depicted the names. In many instances diacritics and such characters are omitted or inconsistently used. At the low end of correct usage were Canadian Pacific, El Al and TAP with virtual absence of other than "simple" English alphabet characters. (Cathay Pacific was not showing enough names to need diacritics.) At the other end of the scale were LOT and Austrian appearing most diligent with these language details (see the example of LOT in Fig. 4). Also towards the higher end of the "correctness" scale were Alitalia, KLM, SAS, Saudi Arabian, Air France 1969 and Finnair (NW Europe only).

Airline		*Endonym*	*Exonyms*	*Comment*
Air Canada 1959	Europe	X		Some exonyms bracketed
	World		English	
Air France 1965	Polar	X		
Air France 1969		X		French in brackets below
Alitalia		X		
Austrian		X		
Cathay Pacific		X		Limited names
Finnair		X		*But only NW Europe*
KLM		X		*But only Americas*
LOT		X		
SAS	Regional	X		
	World		English	
Air Canada1969			English	
Canadian Pacific			English	
Czechoslovakian			English	
El Al			English	
Saudi Arabian			English	
TAP			English	

Table 2 - City names as represented on airline maps of 1970 or earlier.

Airline	*Country names*	*International waters*
Alitalia	Endonyms (romanized)	S. Europe - Italian
		elsewhere - English
Air Canada 1959	English and French	English
Air France 1965 - polar	French and English	French and English
Air France 1969	French	French
LOT	Polish	Polish
Austrian	German	German
All others (regardless of languages or writing system of country of airline)		
	English	English

Table 3 - Language of names
used for countries and international waters on airline maps of 1970 or earlier.

Fig. 3 - Air France map, 1969, showing city endonyms with some bracketed French exonyms; country names and international waters in French; no country boundaries.

Fig. 4 - LOT map, 1967, includes city endonyms with diacritics.

A few particular names were checked on the maps, for general interest purposes:
- Peking … at the time in common usage, and included on some maps;
- Hannover … common usage (8);
  - Hanover used by TAP;
- Livorno … common usage (4);
  - Livorno (Leghorn) used by Air Canada 1959;
  - Leghorn used by TAP;
- Marseille … common usage (6);
  - Marseilles used by Canadian Pacific, El Al, Saudi Arabian and TAP (which also used Lyons, as did Czechoslovakian);
- Göteborg … common usage (9);
  - Goteborg used by TAP;
  - with surprisingly, Gothenburg overprinted for the destination on SAS;
- La Coruña (today referred to in Galician as A Coruña) … correctly recorded by Air France 1969 and Saudi Arabian;
  - La Coruna used by Air Canada 1959 and Alitalia;
  - Corunna by Czechoslovakian;
  - La Corunna used by Air France 1969
- Rīga … was correctly represented by LOT and Austrian;
  - but shown as Riga by 7 other airlines.

Maps of 2001 and 2017/2018

Looking at the 16 maps in the more recent collection, we can see that the style of map has changed markedly – with 4 airlines retaining the formerly popular detailed relief maps with layer tinting and hill shading (Alitalia 2001, KLM, Korean and SAS). 12 airline maps are now using the single coloured continental land blocks, most selecting white or grey for representation of continents (see

Fig. 5A - Singapore Airlines, 2017.

Fig. 5B - Etihad Airways, 2018, with less conventional representation of the continental land masses.

On Fig. 5A and Fig. 5B the relief map of earlier years is abandoned. Note the lack of country names and boundaries; few oceans are named. Destination cities include English exonyms. Airline routes are not indicated by Etihad.

examples of Singapore Airlines and Etihad Airways in Fig. 5). An extreme example of maps becoming diagrammatic in their presentation is provided by the maps of Air Canada that are difficult to interpret (see Fig. 6).

No longer are all the airlines including air routes on every map. Instead, variously coloured town location dots indicate the airline's destinations and those of their code share partners. The omission of the route tracks (except in some world view maps) is applicable to Air France, Alitalia 2001, American, Cathay Pacific, Delta, Etihad, Eurowings, SAS and Singapore (see the example of Eurowings in Fig. 7).

Further changes are evident with the exclusion of country boundaries. Seven of the 16 are no longer detailing national boundaries and only 5 airlines (American, Finnair, Korean, Lufthansa and SAS) include the names of countries – all in English. Singapore includes in English the names of continents on its world map.

All airlines show the names of their destination cities and most include those of airline partners. Only Air Canada, Finnair, and Korean (still using topographic maps) include and name other populated places. Other airlines have made a major shift away from inclusion of extra places and their names.

With regard to names of seas and oceans, their inclusion has been reduced, with only 6 airlines featuring these names on their maps:

-American	English
- Finnair	English
- Lufthansa	English
- SAS	English
- Air Canada	English and French
- Alitalia 2017	Italian.

How are these most recent airline magazines showing the names of cities included on their maps? See Table 4.

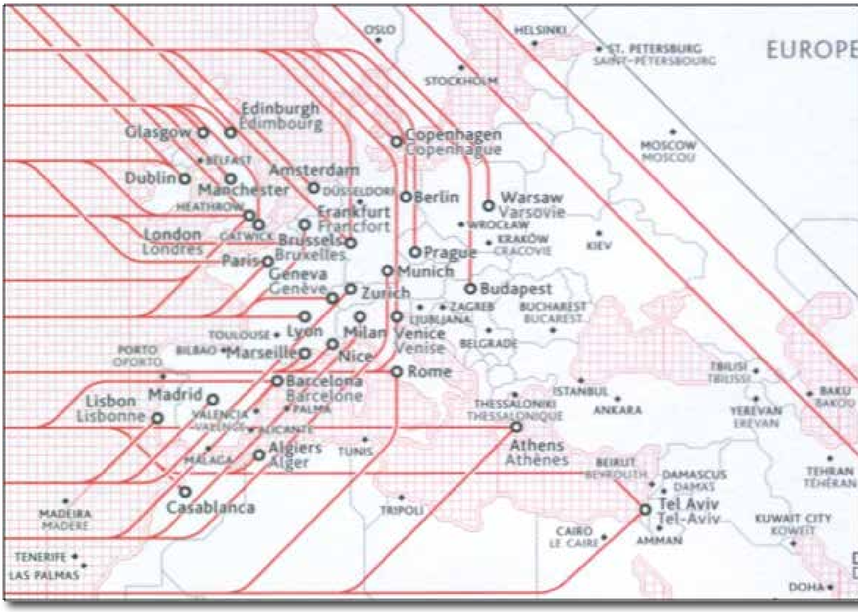

Fig. 6 - Air Canada map, 2018, has become very confusing with diagrammatic representation of routes and many destinations shown with English and French exonyms; no sea or country names are included.

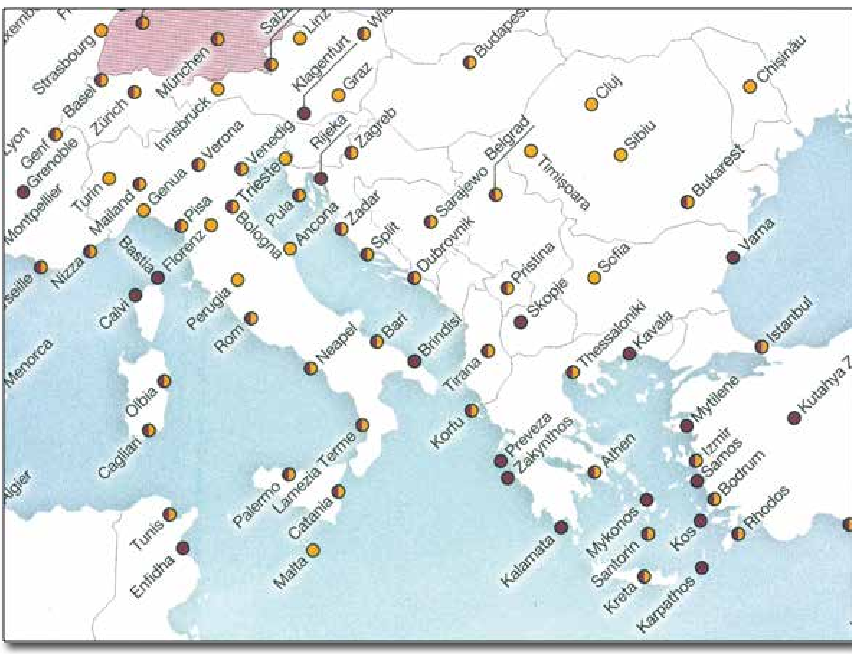

Fig. 7 - Map of Eurowings, 2017.
No routes are shown, but colour coding of city locations represents Eurowings and airline partner destinations. Note: city names include German exonyms; countries are not named, but boundaries are shown.

Endonyms	Exonyms	Language of ocean/sea names	Notes
	Alitalia 2001	But Damasco	
	SAS (N.Europe)	English	Double names in Finland; not Helsinki
Air Canada		English/French	
Air France		French	But London
Alitalia 2017		Italian	
American		English	
Cathay Pacific		English	Chinese in side panels not on maps
Delta		English	
Ethiopian		English	No Amharic on maps
Etihad		English	No Arabic on maps
Eurowings		German	Double names in Poland
Finnair		English	Interesting island section
KLM		English	
Korean		English	No Korean on maps
Lufthansa		English	
Singapore		English	

Table 4 - Representation of city names on airline maps of 2001 and 2017/2018.

Compared to the earlier airline maps, those of post 2000 have for the most part favoured the use of exonyms, rather than endonyms. For the promotion of standardized geographical names this is not the most favourable approach, particularly as there is a definite lack of visible links between exonyms and endonyms.

Treatment of name changes. Some names have changed in usage in the time period between these sets of maps. For example, in India, Calcutta is now Kolkata, Bombay is Mumbai, Madras is Chennai. For the most part airline maps reflect these changes, although Delta incorrectly refers to Kolkat, Air France retains Calcutta and Bombay, Korean uses Mumbai (Bombay), and Alitalia still uses Calcutta. Another example is Kyiv. The Government of Ukraine requested the romanized form be changed from Kiev to Kyiv. No airline map examined has followed this directive; all retain Kiev, except Eurowings that uses the exonym Kiew. Also over these decades the romanization of Chinese has changed, giving Beijing instead of Peking. This change is followed by all airline maps, other than Air France (Pékin), Alitalia 2017 (Pechino) and Lufthansa (Beijing/Peking).

As before, a number of specific names were reviewed to reveal common usage. As the later maps are not all from the same airlines, no direct comparison can really be made with the earlier table, although general remarks are possible.

- Hannover … common usage (6); [not improved]
    - Hanover used by American, Lufthansa, SAS and Singapore;
    - Hanovre used by Air France
- Livorno … not used
- Marseille … common usage (10); [improved]
    - Marseilles used by Finnair;
    - Marsiglia used by Alitalia 2017 (which also uses Lione for Lyon)
- Göteborg … used only by 4 airlines; [not improved]
    - Goteborg used by KLM;
    - Gothenburg shown on maps of American, Delta, Ethiopian, Finnair,
    - Lufthansa and Singapore
- A Coruña … used by Delta and Finnair; [similar]
    - La Coruña used by American, Alitalia 2001 and Alitalia 2017;
    - La Corogne used by Air France
- Rīga … was not correctly represented on any maps, but shown as Riga by 9 airlines [not improved]

Again, the question of diacritics and particular characters is of interest. In identifying the usage of Québec and Montréal, we find that 7 out of 9 correctly represented Québec, whereas only 7 out of 13 used the correct written form of Montréal. At a more general level we see that the following airlines have a thorough approach to including diacritics and a range of character sets: American, Delta, Finnair, Air France, Air Canada, Alitalia 2017, Eurowings, while Etihad, Cathay Pacific and Ethiopian needed few diacritics for their name selection. Korean and Alitalia 2001 varied in their consistency, and SAS (except in Scandinavia), KLM, Lufthansa and Singapore were poor in their respect for correctly written toponyms.

Further remarks about the two sets of maps

In the earlier maps, some airlines provided extra information. For example, side panels showed text describing the continents (AC 1959 in English, French and German; Canadian Pacific in English, French and Spanish), Finnair used side panels to provide notes on seat belts, engine failure and strange noises. Czechoslovakian included time zones and LOT gave a table of distances to its destinations, while El Al added pictures of places served.

The more recent maps have inserted illustrations of places and events taking place (Cathay Pacific, Etihad and SAS), with Delta providing information about flight connections through airline partners, and Lufthansa highlighting the destination of the route of the month.

Today a number of airlines make their magazines available online. So this study could be expanded using such sources. Also online, one can find various older airline maps – another possible source for expanding the earlier data.

Further possible area of study

Many airlines provide onboard digital maps for passengers on domestic or international flights. Air Canada, for example, gives travellers a seatback on-screen map that changes between English and French – using exonyms in either language. Their maps also include some undersea features, quite a strange selection and rather irrelevant to the journey! Who now produces these maps and what are the selection criteria for the names shown?

Another related source of city names is display boards within the airline terminals. These have the ability to provide travellers with better information, for instance, showing the city name alternating between the language used at the airport location and the language of the destination (i.e. relating exonyms to endonyms).

Concluding remarks

Although my array of airline magazines is rather limited, I think it is possible to conclude that over the years the presentation of the maps has changed from atlas style relief maps to much more diagrammatic less detailed maps. Depiction of routes has changed, with colour coded town stamps for airline and partner destinations replacing the routes themselves on many maps. With the changes in presentation of the maps, the number of names included has diminished. For cities it is clear that exonyms have gained ground in the more recent airline magazines. The use of correct character sets and appropriate diacritics has generally improved.

A few things remain unclear … do the airlines themselves decide on the names and their presentation, or is this contracted to cartographic companies? Although some sources are provided on the earlier maps, the later ones in general have no acknowledgement to the designers or cartographers. Will these onboard airline magazines continue to be produced, or will the paper copies follow the fate of many newspapers – leaving maps to be found only digitally at your airline seat or on the web?

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Air Canada: 1959, 1969, 2018
Air France: 1965, 1969, 2017
Alitalia: 1969, 2001, 2017
American Arlines: 2017
Asky Airlines: 2015
Austrian Airlines: pre-1970
Cathay Pacific: 1969, 2018
Canadian Pacific (cp) Air: 1969

Czechoslovak Airlines: 1967
Delta Air Lines: 2017
El Al: Pre-1970
Ethiopian Airlines: 2017
Etihad Airways: 2018
Eurowings: 2017
Finnair: 1969, 2017
Klm: 1968, 2018
Korean Air: 2017
Lot: 1967
Lufthansa: 2018
Norwegian Air: 2017
Sas: 1957, 1969, 2017
Saudi Arabian Airlines: 1969
Singapore Airlines: 2017
Tap: 1968.

Preservation vs. innovation in the toponymy of Europe

Alberto Nocentini*

Abstract

Large scale survey of European toponymy, which takes into account main rivers and capital cities, leads us soon to conclude that continuity and preservation clearly prevail over innovation and discontinuity. In general the current geographical location of place names mostly mirrors the distribution of European populations during the Middle Ages and ancient times. Wars, invasions, revolutions and border shifts, that have upset the history of Europe, seem to have left only surface tracks on its toponymy.

Keyword: *European toponymy, toponymic innovations, toponymic preservation.*

There is no doubt that, if we consider main toponyms, i.e. the names of main rivers and capital cities, in the European domain continuity and preservation largely prevail over innovation and discontinuity. In the West the evidence for continuity is provided first of all by place names of Celtic origin. Between the 5th and the 3rd century B.C. Celts were the most numerous people of Western Europe and their domain stretched from the Atlantic Ocean to the Danubian basin. Celtic names are Rhein from Indo-European (IE.) *reinos 'stream, running water', which is Rhēnus in the Latin sources with Celtic ē issued from *ei — like its younger brother Reno in Italian Romagna at the southern border of the Celtic domain — and Thames from IE. *tamesā 'dark water'; also the little but symbolic river Avon bears a Celtic — namely Brittonic — name, which corresponds to Welsh afon 'river'.

An interesting and disputed case is that of Istros, the Greek name of the Danube, which derives from *is-ros 'stream', just like the German Isar and Iser and the French Isère; at the origin there is the IE. root *is-/eis- 'move fast', 'flow', which is found also in French Oise. The German scholar Hans Krahe explained all these similar cases by means of "Alt-Europäisch", an intermediate linguistic layer between common Indo-European and the historical language families. In my opinion, however, this hypothetical layer is only a phantom, which derives from a wrong comparative perspective, and all the river names quoted above can easily be explained through the geographical distribution of the Celtic populations.

The western capital cities are London, the old Londinium in the Latin sources, which is derived from the name of a Celtic people called londo- 'bold'. Another Celtic people, the Parisii, gave the name to Paris, in Latin Lutetia Parisiorum, while Lyon corresponds to the old Lugdunum, a proper Gaulish name which meant 'the town of the god Lugus'; the same name, with a different issue, has

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given Leiden in Holland. In Northern Italy the two capital cities of Turin and Milan, in Latin Augusta Taurinorum and Mediolanum respectively, both have Celtic names: Taurini was the name of a Gaulish people having the bull (tauros) as tribal totem and Mediolanum is a compound of medio- 'middle' and (p)lanum 'plain' with the typical dropping of initial p-. Bonn, the capital of the former West Germany, is related to Irish bonn 'ground', 'town' and the old Vindobona (today Wien) was a compound with vindo- 'white', which meant 'the white town'.

The Greek colonization, which started during the 8th century B.C., has left its permanent traces in many of the main harbours in the Western Mediterranean. In Provence Marseilles corresponds to the Greek Massália, Nice to Níkaia 'the winner' and Monaco owes its name to the cult of Heraklês Mónoikos. In Italy Naples corresponds to the Greek Neápolis 'the new town', Palermo to Pánormos 'all-landing' and Ancona to ankôn 'elbow' for the shape of the coast.

The two most important sea-faring towns of Italy, namely Genoa and Venice, have a different, but not later origin. The old Genua, literally 'knee-shaped', is a Celto-Ligurian name, the same as Genava, the modern Genève in Switzerland, which is due to the shape of the shoreline. The old Venetia derives from the ethnic name Veneti, who were the first colonizers of the region and the reconstructed form *weneto- was a synonym of 'Indo-European'. A similar origin is assigned to the near harbour of Trieste, the old Tergeste, which in turn is analyzed as *terges 'market' plus the postposition -te 'at'.

In Eastern Europe the case of the names of the big rivers, which flow across the wide plains around the Black and the Caspian Sea, is noteworthy. Their names recorded in the Latin and Greek sources, namely Danuvius (Danube), Dánapris (Dnieper), Dánastris (Dniester), show a common basis, which corresponds to Old Iranian *dhānu- 'river' and is due to the Scythians, the Iranian people who inhabited the region from the 8th century B.C. until the beginning of the Christian era. In particular the river name Don is identical with Ossetic don 'river', issued from Old Iranian *dhānu-, and it is worth noticing that Ossetes are the modern descendants of the old Scythians. As regards the name of Volga, suffice it to say that it is the Slavic translation — Russian vologá means 'dampness' — of the previous Iranian name Râ from Old Iranian *raha- 'dampness'.

Let us now consider innovations, whose main causes are migrations, when the newcomers replace the old place names to mark their mastery. This is the case of France, which from the 6th century onwards bears the name of the German conquerors, the Franks, replacing its original Celtic name of Gaul, the Latin Gallia.

There are also interesting cases of multiethnic stratification, like Bohemia, nowadays a Slavic country, whose name is a compound of the Celtic ethnic Boi and of the German heim 'homeland'. Otherwise language stratification may bring about a reanalysis and a change of motivation. A fair instance is the name of York, at first sight a typical English place name. Its original form was the Celtic Eboracum according to the Latin sources in the 1st century, which was a derivative of eburos 'yew' (Taxus baccata) plus the collective suffix -ācu with the meaning of 'place with yews'. In the 11th century, after the settlement of the Angles, this name was reinterpreted as Eoforwic, a compound of eofor 'boar' and wic 'village', a borrowing from Latin vīcus; therefore, it assumed the new meaning of 'village of the boars'. Then, after the settlement of the Vikings, the pronunciation turned to Iorvik and at last was reduced to York, which has lost any motivation.

A further case is represented by the so-called 'conservative changes', when an old name is replaced by a new one, but equivalent in meaning. We have already seen the case of the river Volga, where Iranian Râ has been replaced by means of the Russian vologá maintaining the meaning of 'dampness'. Sometimes it may happen that the old and the new names form a compound, that is called 'tautological', like Mongibello, the Sicilian name of the volcano Etna, where the Italian mon(te) has been combined with Arabic gebel and the result is a name with the meaning of 'mountain-mountain'.

The name of Bath, the town in Somerset which was known for its thermal springs since the ancient times with the name of Aquae Sules, is a more complex case. The English name is nothing but a translation of Latin Aquae, the plural of aqua 'water' used to refer to thermal springs, which was in turn the translation of Sules, corresponding to Celtic *sūli- 'eye' and 'spring'; therefore. the old Aquae Sules was a tautological place name.

The most remarkable changes have happened in Eastern Europe during the 20th century as a consequence of two world wars and the Russian revolution. The old multiethnic empires have disappeared and new nations have come into existence together with border shifts and population replacements. After the First World War the capital of Slovakia changed its German name of Pressburg into the Slavic name of Bratislava. In Estonia the two main towns abandoned their German names of Reval and Dorpat and took the Finnic names of Tallinn and Tartu. In Finland, on the contrary, the two main towns of Helsinki and Turku have maintained also the Swedish names of Helsingfors and Åbo in respect of the Swedish minority, who ruled over the country until the 19th century. In Lithuania the harbour of Memel changed its German name into Klaipeda in 1946.

In some cases the towns with a multiethnic population had different names according to the different languages. The Slovakian capital, before assuming the definitive name of Bratislava, was Pressburg for Austrians, Perecberg for Slovakians and Pozsony for Hungarians. When Transilvania was a province of the Austro-Hungarian empire, the old Claudiopolis (today Cluj-Napoca) was Klausenburg for Austrians, Kolozsvár for Hungarians and Cluj for Romanians. Border shifts with the consequent population replacement may be the cause of multiple changes: such is the case of Leopolis, called Lemberg under the Austro-Hungarian rulers, Lwów under the Polish government and L'viv in the current Ukrainian Republic.

But in the 20th century the most remarkable changes in toponymy are the consequence of ideological propaganda, first of all in the former Soviet Union. A glance at a map of 1950 would display the names of the protagonists of the Bolshevik revolution. This scenario, however, has not lasted out the century and the restoration of 1990 has deleted almost all the innovations. In the following table I recapitulate the most conspicuous events, that have upset the toponymy of Eastern Europe in the 20th century. I have added the data — although they are indeed not so conspicuous — of former Yugoslavia and Italy, too.

Only two important towns retain the names received after the revolution: Kaliningrad from 1946, previously Königsberg in the former Eastern Prussia (although people currently use the old name), and Engel's, previously Pokrovsk, which was the capital of the former Soviet Volga-German Republic and received this name in 1931.

Our final comment is that the unpredictable course of events is still effective and history gives us an extraordinary lesson, showing how regimes inspired by the opposite ideologies of fascism and communism, whose scope was to start a sort of palingenesis of mankind, have left only marginal traces in the toponymy of Europe after less than a century.

RUSSIA	Sankt-Peterburg	→	Leningrad (1924)	→	Sankt-Peterburg (1991)
	Caricyn	→	Stalingrad (1925)	→	Volgograd (1961)
	Nižnij Novgorod	→	Gorkij (1932)	→	Nižnij Novgorod (1991)
	Samara	→	Kujbyšev (1935)	→	Samara (1990)
UKRAINE	Lugansk	→	Vorošilovgrad (1935)	→	Lugansk (1990)
	Jekaterinoslav	→	Dnepropetrovsk (1926)	→	Dnipro (2016)
	Mariupol'	→	Ždanov (1948)	→	Mariupol' (1989)
GERMANY	Chemnitz	→	Karl-Marx-Stadt (1953)	→	Chemnitz (1990)
MONTENEGRO	Podgorica	→	Titograd (1946)	→	Podgorica (1992)
ITALY		→	Mussolinia (1928)	→	Arborea (1944)
		→	Littoria (1932)	→	Latina (1946)

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Territorial identity and place names

Laura Cassi*

Abstract

Though territorial identity is very difficult to define, this report tries to do it by investigating place names, considering both as dynamic phenomena. Many different research fields can apply to territorial identity, but surely the toponymic ones can 'say' much about it, mostly referring to ancient and densely populated areas like ours. Examples will be discussed, with reference to Tuscany, showing the great content value of the Topographical Map of Italy edited by the Italian Geographic Military Institute to highlight historical population dynamics as well as social and economic features which have characterized the territory over the centuries.

Keywords: *place names, territorial identity, Tuscany.*

What is territorial identity? Defining it is a difficult task. However, place names are surely one of the most important components of territorial identity. These are both dynamic phenomena, even though, this is not the principal reason for their relationships.

Though many examples could be mentioned, I will limit myself to place names in the Florentine area. Of particular interest, it has been densely populated since ancient times. The place names chosen are referred to in linguistic and geographical terms.

In the early 1960s, a well-known linguist, Pelio Fronzaroli, studied Florentine region place names. He grouped these place names in terms of their etymological origin: four groups were identified, pre-Latin, Latin, Germanic, and neo-Latin. The neo-Latin ones are especially numerous: linguistic stratification clearly highlights the historical population dynamics in our area.

Many years ago, Silvio Pieri, another well-known linguist, identified numerous Etruscan toponyms, such as Corolla, Stella, Mècchio and so on; Mècchio can be compared with the Latin name Vico and Vicchio (vicus, a social grouping or village); for example, from paleo-Mediterranean words we have Monte Albano, from alba, stone, height; from some Mediterranean words we also have the name Arno (arna, sunken bed of a river); Greve from the Mediterranean base grava, gravel; Parga from barga, hut; Falterona from shovel, roundness, bump; even the place names derived from Mediterranean paleo words are quite numerous.

Another very interesting example concerning the linguistic stratification of place names is given by Alberto Nocentini, a glottologist as well known as those I mentioned above, who recently studied the toponymy of the Casentino region (internal Tuscany), offering many significant elements to illustrate the historical

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identity of this area from a diachronic point of view, as Fronzaroli did for the Florentine one.

Some hydronyms north of the River Arno indicate links with ancient Ligurian populations; they could be evidence of Ligurian settlement in the Arno region, later occupied by the Etruscans: here we have Stura, also to be found in Liguria and Piedmont, and in Northern Europe; Tavaiano, from tav-, also present in France and Scotland; Ombrone from an Etruscan personal name: in ancient times this was the name by which the Ligurian populations identified themselves. Among the names of Latin origin, we recall the praedial ones, derived from the name which indicates the person to whom the landed property was assigned. The praedial names are numerous and often end in *–ano*, from the Latin *–anus*, so they are easily identifiable, as in the cases of Gricigliano, Grecilio's field, Ponzano, Ponzio's field, Samprugnano derived from Sempronianu, that is Sempronius' field (on the official map Saint Prugnano erroneously appears). Other praedial names are: Terzolle, Serpiolle, Marignolle and so on; other Latin names originated in Roman landmark computation, and indicate ancient road layouts like Via Cassia, on the right bank of the River Arno. So, starting from Florence (Florentia, a greeting name), we have: Quarto (Fourth mile from Florence), Quinto (Fifth), Sesto (Sixth), Settimello (Seventh). Others refer to Roman centuriation (a grid system by which the Romans divided up cultivable land), such as Quarrata from quadrata, Cintoia from centuria, Colonnata from columna; and again, Gonfienti from confluentes (a small stream joining with the River Bisenzio), Compiobbi from compluvium (the River Sieve flows into the Arno). Though far fewer than the Latin names there are a number of Germanic ones: they probably refer to Longobard settlements and mostly concern hills and mountains: Monte Perlo (Mount Perlo), Colle Barucci (Barucci Hill), Monterinaldi, Montughi .... We also find: Barone, Baroncelli, Ghiffia, Cafaggiolo (land reserved for hunting by the lord), Gualdo (wood, wald) and many others.

Obviously, historical linguists are mainly interested in ancient names, while geographers are mainly interested in the mass of neo-Latin names since these names, as a whole, can offer the reading, the portrait - one could say - which the inhabitants, inspired by the physical and human landscape characteristics that over the centuries have caught their attention, have drawn up of their territory. Geographical studies on the neo-Latin place names etymological meaning, can surely highlight many social and economic features which over the centuries have characterized a particular territory.

In the area we are dealing with, neo-Latin names are the most numerous and refer to soil morphology, like Poggio Alto (high hill); hydrography, like Padule (swamp), Fontesecca (dry source); vegetation, like Monteloro (laurel mountain), Lecore (holm oak wood); animals, like Gamberaia (a place where shrimps can be fished), Cerbaia (woods where deer live); settlements, like Tavarnuzze (small taverns along ancient roads), Casellina (small house); industrial activities, Calcinaia (a place where mortar was produced); old social organization, like Case Comunanze (common house) and so on.

All these, more or less old names, allude to the (more or less distant) past and therefore to an identity that has taken shape over time. The place names on the official maps resemble a traditional world which today has undergone great changes, or even disappeared altogether.

So, does toponymy have no relation to current events? Well, it would be wrong to assume that toponymy has only links with the past. Just think of the new place names following the reclamation along Italian coasts in the 1930s or the very recent ones linked to the tourism phenomenon in Sardinia.

So, if we have lost some ancient names, referring to traditional activities, others have appeared, suggested by new activities, like tourism. The new names may well appear as a foreign body in an ancient context, such as Costa Smeralda (the Emerald Coast), Turquoise Coast, Butterfly Bay, Eden Rock. However attractive they may sound, they have nothing to do with the past and traditional activities. However, territorial identity is also changing and today tourism in Sardinia is certainly part of it and we can say the same for other new names.

Returning to the Florentine area, where the toponymic corpus is the result of different word layers, I should like to give an example highlighting how the traditional scattered settlement offers readings that we can qualify as ‘identification spies’. Many specificities are recalled in the toponymic corpus, both from a synchronic point of view and from a diachronic one. Under the synchronic profile there emerges a careful reading of the physical and cultural landscape, under the diachronic one the presence of ancient, secular and modern names stands out.

Fig. 1 - A stretch of the Bisenzio Valley.

In figure 1 we can see a stretch of the Bisenzio Valley where there are many personal names from the Roman period, like Vaiano, Sofignano, Savignano, Spicciano; others are names of Saints from the Middle Ages, like Gaudenzio and Benedetto; others still belong to the families that had extensive possessions during the Renaissance centuries, like the Guicciardini. Many other names are evidence of human activities, like Fornaci (furnaces), Calcinaia (place where mortar is made), Fabbro (blacksmith), like Poggio dei Mandrioni (livestock hill); activities and forms of agricultural management that are no longer exercised today, like Poderino (little messuage); settlements, like Mulinaccia (ruined mill), Torricella (little tower), Sala (Germanic term to indicate little settlement); soil forms, like Montaùto (mountain which has a sharp form); landslides, like Poggio Macìa; hydrography and sources, like Rimaggio (major stream), Fontanelle (small springs); vegetation, like Querceta (oak forest), Fosso del Boscone (stream flowing in a large forest); position with respect to cardinal points, like Spazzavento (place exposed to the wind), animals, like Volpolaccio (place where foxes live, or an impervious place, where only foxes can live). I have mentioned only a few, but many others are equally significant and, mind you, they are all located in a small territory.

Place names are therefore identifying spies because, despite them mostly originating from simple observations, that is from common names, the passing of the centuries gives them an added value, as shown by the toponyms Guardia and Filetta, located on two opposite sides of the Bisenzio Valley, indicating - in the early Middle Ages - two guard posts, Germanic the first (Ward), Byzantine the second (Filetta comes from the Greek fulak): history gives them an unquestionable identity meaning. I should like to conclude with some other place names near Florence: Mezzòsso (half bone, a poor old messuage), La Selva (wood, but now there is no longer a wood), Podere Spedale (hospital messuage, a place where hospitality was given along an ancient road to Rome), see figure 2.

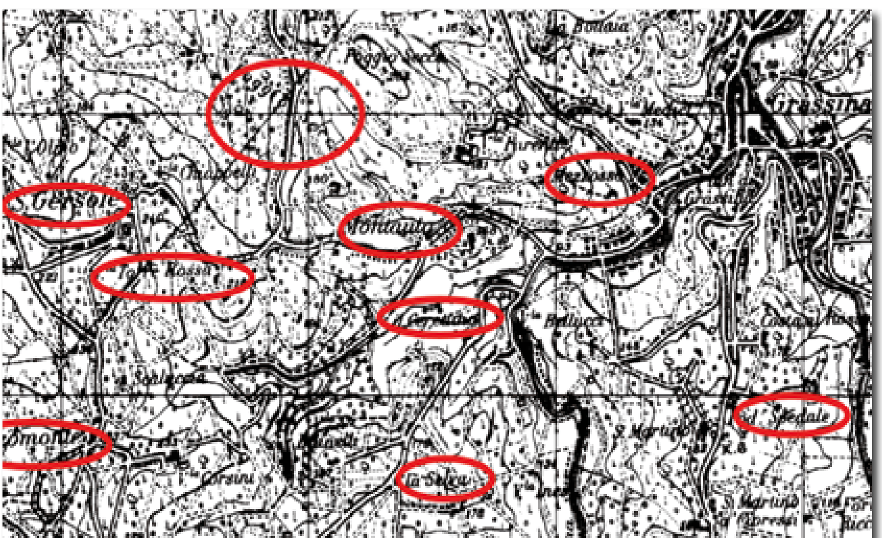

Fig. 2 - Some place names near Florence along an ancient road to Rome.

In conclusion, place names are at the same time photographs and environmental portraits, a representation of a real world and real way of life, but also an interpretation of reality itself and sometimes even an expression of a virtual reality, produced exclusively by the perception of the generations that over the centuries have followed one another in the same territory.

Obviously many other studies can apply to territorial identity, but surely the toponymic ones can 'say' much about it, mostly in ancient and densely populated areas like ours.

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The "knights of the ideal": toponymy and colonization in the Italian rural centres of Libya

Andrea Masturzo

Abstract

The Italian demographic colonization of Libya was realized for the most part between 1938 and 1940; it saw the construction of many colonial centres where part of the rural Italian agricultural population was transferred for the cultivation of those territories. As we can find on the maps of the time, the new territorialization of the colonial area involved new names for these villages, particularly commemorating more or less famous personalities of Italian history. Starting from a brief excursus on the debate on the denomination in newly colonized territories, the essay aims to examine the "new toponymy" created by the Italian colonizer, through a semiotic analysis and in this way reconstructing the identity characteristics of a colonial project that was based on the values of nationalism, "Risorgimento", irredentism, colonialism and Fascism.

Keywords: *Italian toponymy of Libya, demographic colonization of Libya.*

Toponymy in the Map of Libya

In the Carta Dimostrativa della Libia (Demonstrative Map of Libya), scale 1:400,000, realized by the Italian Geographic Military Institute – considered by the political authorities of the time as the fundamental map of the colony (Masturzo, 2007b) – we mainly find a Libyan toponymy, transliterated into the Italian language. Within this framework, mainly linked to the local geography, some typically Italian names emerge: a series of toponyms referring to more or less famous personalities in Italian history, such as, for example Garibaldi, Crispi, D'Annunzio, Breviglieri, etc.

These toponyms, as specified in the legends of the maps, refer to Italian inhabited rural centres. They emerge among Libyan ones because the map includes additional details of the streets and houses of the area, which provide evidence of these names. This adds to the name a synthetic graphics consisting of the relief of the streets and the houses of the represented area, a peculiarity that denounces the special evidence that the map gives to these names. The fact that these Italian toponyms have been linked to cartographic icons (Casti, 1998), unusual in that type of cartography, highlights that we are facing areas where colonization had a more marked characterization.

These are the rural centres built under the Balbo governorate after a period of experimentation that started in 1932. The government of Libya, in fact, in those years initiated a programme of intensive demographic colonization organized in great style, which encouraged, in 1938, about 20,000 Italians to emigrate to Libya and a similar number in the following year. An intense programme, which involved a huge financial and organizational effort but which stopped only two years later, in 1940, with the beginning of the war in Africa. In those very few years the Italians created a landscape of unequivocal character in the North African colony. The colonial programme was, first of all, a project of territorialization based on political planning.

What appears to be peculiar in this demographic colonization programme is the role that toponyms had. The toponymy of the rural centres was realized using the names of more or less eminent personalities of Italian history: in this way they created a denomination which, as we shall see, presents character and meaning that are coherent with the colonial project.

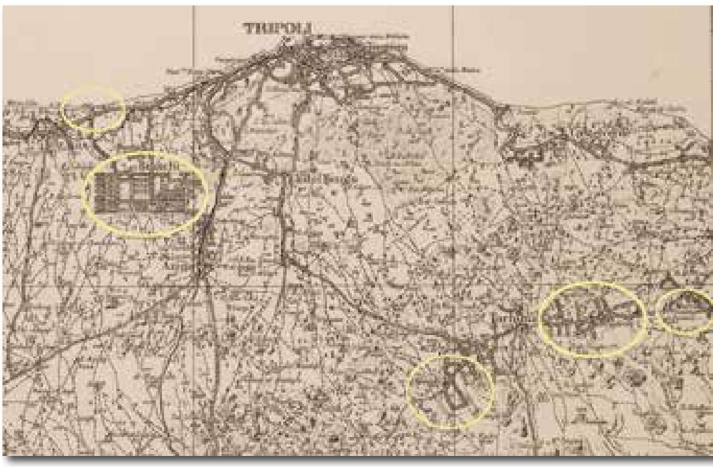

Fig. 1 - Extract of "Carta Dimostrativa della Libia", scale 1:400,000, sheet 2 "Tripoli", Italian Geographic Military Institute, 1949.

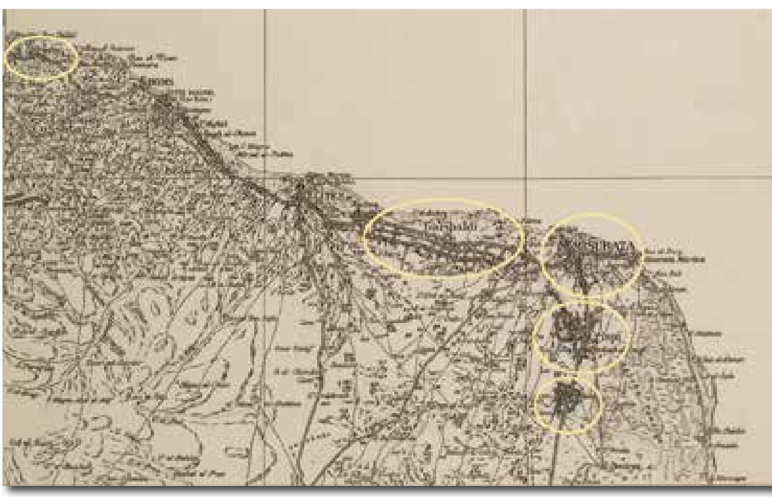

Fig. 2 - Extract of "Carta Dimostrativa della Libia", scale 1:400,000, sheet 3 "Misurata", Italian Geographic Military Institute, 1949.

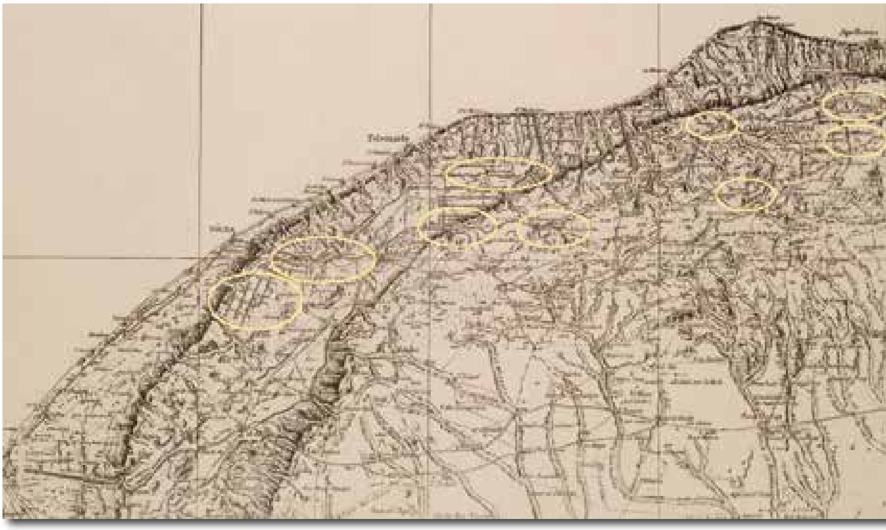

Fig. 3 - Extract of "Carta Dimostrativa della Libia", scale 1:400,000, sheet 4 "Bengasi", Italian Geographic Military Institute, 1949.

The theoretical debate on toponymy

The idea of naming in the colonies with names of famous and illustrious people did not appear the first time with fascism or with the Balbo governorate, but it already dated back to the first years of colonization. In fact, debate on the toponymy of the new colonies appeared at the beginning of 1915, basically in the geographical and colonial cultural circle (Masturzo, 2016, pp. 211 - 213).

For example, in the African Society of Italy, a colonial association active in Naples, some articles published in its magazine testify to an intense debate held at the beginning of 1915. The engineer Giacomo Buonuomo, vice president of the Society, claimed the recovery of the Greek-Roman names and the assignment of new names that recalled the Italian national glories. The ordinary general meeting of shareholders of the Society on January 24, 1915 received the requests of Buonomo, expressing in particular this vote: "… that in the location of new discovery and for the centres of new creation especially there … where there are no real linguistic traditions, names which recall national glories, especially in the field of geographical exploration and colonial expansion, are assigned" (Blessich, 1915, pp. 138-139, Masturzo, 2016).

In a similar way an analogous theory crossed the world of geography. For example, the geographer Aldo Blessich, in an article that appeared in the magazine "L'Africa Italiana" of 1915, wrote of the correctness of the choice of giving new names to the colonial territories (Ibid., pp. 163-164)[1].

[1] For more details on this subject we refer to my article in the proceedings of International Scientific Symposium Florence, Italy, 26 - 27 March 2015 (Masturzo, 2016) and to my essay in "Bollettino della Società Geografica Italiana" (Masturzo, 2007a) in Italian.

The intensive demographic colonization

A new phase of the colonization of Libya, called intensive demographic colonization (Capresi, 2009; Masturzo, 2009), began with the governorate of Italo Balbo (1934-1940). In this period the objectives of the Italian colonial policy changed in character: they moved from the aim of economic agricultural exploitation to the realization of the settlement of Italians in the colony, that was an objective of a political-social nature rather than one based on economic evaluations.

The need for a colonial demographic development, according to the governor, was connected, in fact, to political, military and social causes. The opportunity of this type of colonization of Libya was dictated, in his opinion, first of all, by the political decision to make the coastal provinces an integral part of Italy (fourth shore). The Italians of Libya had to make that colony self-sufficient as regards the supply of food and, moreover, it would have created the conditions for constituting an army with local soldiers, a condition considered extremely advantageous in the case of conflict in the Mediterranean (Balbo, 1939).

The demographic colonization carried out in Libya in the 1930s was a realization that clearly had its theoretical and practical precedents in the territorial policy implemented by the Fascist government in Italy. Fascism elaborated a territorial practice that was derived from its ideological principles. It sought a solution providing continuity with the policies of the past and it was fundamentally focused on anti-urbanism (Mariani, 1976). The modern city had become in fascist ideology the primary cause of the problems of society that the regime intended in every way to fight; in particular, the responsibilities of the demographic decline and, therefore, of the reduction of the power of the Nation, were attributed to urban centres and for this reason a policy based on rural life was inaugurated. Similar to what happened in Italy, the colonization of Libya had a rural and social character. The purpose was the establishment of small agricultural properties:
"it was my task to change the course decisively, to establish a system of colonization that went beyond the industrial phase of it, and, inspired by essentially social principles, destined the necessary sacrifices of the Government exclusively for the workers of the land; a system designed to promote the small ownership of the peasants" (Balbo, 1939, p. 464, translated by the Author).

The rural choice did not mean the simple adherence to life in the countryside but it was connected to a series of political, spiritual and ethical values. Through the return to the land, the aim was to achieve the development of a new man, a new society.

Toponyms as "the knights of the ideal"

The rural centres and the villages of the intensive demographic colonization were all denominate to more or less famous personalities of Italian history. In 1939, Italo Balbo in an article about the demographic colonization in Libya wrote the following passage:

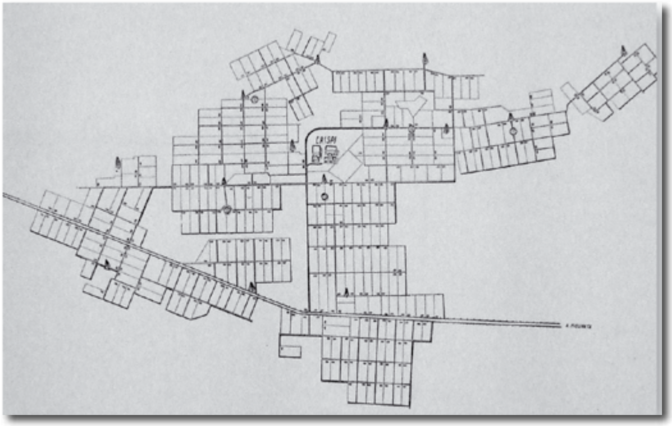

Fig. 4 - Extract of the Atlante *(Ente per la Colonizzazione della Libia, 1940) showing the rural village Crispi including the centre, the farms, the farmhouses and the irrigation points*

"Meaningful names, names rich of fate are those the industrious villages of the colonizing deeds are named after.

From the legendary man of Nice, the everlasting expression of voluntarism, generosity and Italian value, Giuseppe Garibaldi, to the blond poet who fell singing on the way to Rome, Goffredo Mameli;

from the great investigator of the occult forces of space, Guglielmo Marconi, to the still example name of Pietro Micca, to the patriotic priest, Don Tazzoli, who illuminated the terraces of Belfiore with mystical light, up to the statesman who first dreamed of the African Empire – Francesco Crispi – to the heroes of the great war and the Ethiopian conquest – Baracca e Oliveti;

from the martyrs of irredentism – Oberdan, Battisti, Filzi and Sauro, to the martyrs of Fascism – Giordani, Berta, Breviglieri;

from the prophet who wanted for himself and for Italy a wreath of oak and not of laurel – Gabriele D'Annunzio – to the fervent aviator with a great wing beating – Umberto Maddalena ;

to the men of faith who believed in the spirit of the Fascist Revolution in the dark period – Bianchi and Gioda – to the one who was the first President of the Organization for the Colonization of Libya – Luigi Razza – up to the Savoy Prince, mindful of the ancestors, who wanted to crown the heroic life with the obscure labour of the pioneer of African colonization – Luigi Di Savoia;

our great knights of the ideal animate us and guide us in the hard but radiant enterprise. We will not fail the goal"[2] (Balbo, p. 475).

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[2] "Nomi significativi, nomi ricchi di fato, sono quelli a cui si intitolano gli operosi villaggi della gesta colonizzatrice. Dal leggendario Nizzardo, espressione sempiterna del volontarismo, della generosità e del valore italiano, Giuseppe Garibaldi, al biondo poeta caduto cantando sulla via di Roma, Goffredo Mameli; dal grande indagatore delle forze occulte dello spazio, Guglielmo Marconi, al nome ancora ammonitore di Pietro Micca, al sacerdote patriota, che illuminò di luce mistica gli spalti di Belfiore, Don Tazzoli, fino allo statista che primo sognò l'Impero Africano – Francesco Crispi – agli eroi della grande guerra e della conquista etiopica – Baracca e Oliveti – ; dai

This passage testifies that the choice of toponyms for the rural centres of demographic colonization was a strongly pondered and studied choice. In fact, Balbo, governor of Libya and true creator of demographic colonization – and very probably also the true author of the denomination – in the quoted writing gives the reasons for this choice.

First of all, he says: "Meaningful names, names rich of fate, are those to which the industrious villages of the colonizing deeds are named", demonstrating in this way to have well understood the role and the importance of the geographic names in the colonial project. Referring then to the personalities the villages were named after, Balbo considers them as symbols of that Libyan colonial planning, which was characterized by the strong utopian aspects linked to specific social and political ideologies: "our great knights of the ideal animate us and guide us in the hard but radiant enterprise. We will not fail the goal". In this sense it is clear that the names used were chosen as representative of ideas, deeds and historical facts by which that colonial project was inspired. The denomination uses the metaphorical relationship[3]: the toponymic network of rural centres thus constituted a coherent semiotic field, which we will try to analyze, which defined the identity of that political and social structure that was being realized on the "fourth shore".

And for this reason, we will analyze each one of these names trying to identify their metaphorical function in order to show the signification that this denomination produced in the territory.

Villaggio Garibaldi (Garibaldi rural centre). It is Balbo himself who begins his narrative about the naming of the centres, starting from the figure of Giuseppe Garibaldi, hero of Risorgimento, who was defined "the legendary man of Nice, the everlasting expression of voluntarism, generosity and Italian value". In Fascism the appropriation of the figure of Garibaldi was not new: Fascism, in fact, never ceased

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martiri dell'irredentismo – Oberdan, Battisti, Filzi e Sauro – , ai martiri del Fascismo – Giordani, Berta, Breviglieri; dal vate che volle per sé e per l'Italia serto di quercia e non d'alloro – Gabriele D'Annunzio – al volatore fervido dal grande battito d'ala – Umberto Maddalena – ; dagli uomini di fede che credettero nello spirito della Rivoluzione Fascista nella vigilia oscura – Bianchi e Gioda – a colui che fu il primo Presidente dell'Ente per la colonizzazione della Libia – Luigi Razza - , fino al Principe Sabaudo, memore degli avi, che volle coronare la vita eroica con l'oscura fatica del pioniere della colonizzazione africana – Luigi di Savoia - ; i nostri grandi cavalieri dell'ideale ci animano e ci guidano nella dura ma radiosa impresa. Non falliremo la méta"(Balbo, 1939, p. 475).

[3] The metaphorical relationship is the "psychic and linguistic process through which, after having mentally associated two different realities on the basis of a particular, that is felt as identical, the denomination of one substitutes the name of the other" (Treccani, Enciclopedie on line, "Metafora" *ad vocem,* translated by the Author).

to claim a spiritual continuity and an ideal coherence towards garibaldinism[4].

Villaggio Mameli (Mameli rural centre). Balbo continues with another hero of Risorgimento, Goffredo Mameli "the blond poet who fell singing on the way to Rome".

Borgata Micca (Micca rural village). The narration lists other patriots of the Risorgimento. Beginning with Pietro Micca, the miner of humble extraction who, for the love of his country, on August 30, 1706, during the siege of the French at the citadel of Turin (War of Spanish Succession) sacrificed his life, blowing up a gallery and remaining buried there.

Borgata Tazzoli (Tazzoli rural village). To continue with Don Enrico Tazzoli "the patriotic priest who illuminated the terraces of Belfiore with mystical light". Priest and patriot of Mazzinian ideas, he participated in a conspiracy to obtain independence from Austria; discovered, he was killed in Belfiore in 1852.

Villaggio Oberdan (Oberdan rural centre), *Villaggio Battisti* (Battisti rural centre), *Borgata Filzi* (Filzi rural village), *Borgata Sauro* (Sauro rural village). Balbo then goes on to celebrate the "martyrs of irredentism - Oberdan, Battisti, Filzi and Sauro". Irredentism, in fact, as a struggle against Austria, constituted the true continuation of the Risorgimento, and, through interventionism, war and the post-war period, and therefore Fiume and the Dalmatian question, constituted the direct and visible conjunction between the Risorgimento and Fascism.

Villaggio Crispi (Crispi rural centre). Dedicated to Francesco Crispi for his activity as a colonialist "the statesman who first dreamed of the African Empire".

Villaggio Razza (Razza rural centre). Dedicated to Luigi Razza "the one who was the first president of Ente per la Colonizzazione della Libia (Organization for the Colonization of Libya)".

Villaggio Di Savoia (Di Savoia rural centre). Dedicated to "the Savoy Prince, mindful of the ancestors, who wanted to crown the heroic life with the obscure labour of the pioneer of African colonization". He is Luigi Amedeo di Savoia, Duke of Abruzzi, famous for his colonial activity in Somalia where he established the Duca degli Abruzzi Agricultural Company.

Villaggio Giordani (Giordani rural centre), *Villaggio Berta* (Berta rural centre), *Villaggio Breviglieri* (Breviglieri rural centre), dedicated to Giulio Giordani, Giovanni Berta and Arturo Breviglieri, "the martyrs of Fascism".

Villaggio Bianchi (Bianchi rural centre), *Borgata Gioda* (Gioda rural village), dedicated to the Fascists of the early times Michele Bianchi and Mario Gioda: "the men of faith who believed in the spirit of the Fascist Revolution in the dark period".

Villaggio Baracca (Baracca rural centre) e *Villaggio Oliveti* (Oliveti rural centre), Francesco Baracca and Ivo Oliveti, for Balbo "the heroes of the great war and the Ethiopian conquest". Both aviators, one died in the First World War against Austria, and the other in the campaign of East Africa.

[4] "… Fascism never ceased to claim a spiritual continuity and an ideal coherence towards garibaldinism, to valorise, within its mythical universe, those aspects such as the popular and voluntary character that could be more connected with the nature of Fascism, as the voluntary militia in the service of the nation, and as its vision of the Risorgimento as an unfinished or betrayed process" (Soriano, 2010, p. 106, translated by the Author).

The air force was Balbo's favourite armed force: born in those years as an independent armed force, it was synonymous with novelty, with modernity, with technicality but also with dynamism and courage. And Italo Balbo had been at the head of it (Minister of Aeronautics) before becoming Governor of Libya.

Villaggio Maddalena (Maddalena rural centre). Dedicated to Umberto Maddalena, "the fervent aviator with a great wing beating". Military and aviator became famous as a result of the discovery of the shipwreck of the airship Italy at the North Pole.

Villaggio D'Annunzio (D'Annunzio rural centre). The centre was named after Gabriele D'Annunzio, considered poet of the Libyan colonization, to whom he dedicated an ode, the *Canzone d'Oltremare*. He was a famous writer and a poet, he was a military man - in particular an aviator - a patriot and an irredentist, summarizing in his work many of the semantic areas that inspired the regime in that denomination. Balbo wrote "the prophet who wanted for himself and for Italy a wreath of oak and not of laurel": the "oak wreath" referred to an honour that the Romans gave to the soldier who had saved a Roman citizen, while the "laurel wreath" decorated the forehead of the poets.

Centre Name	Personality	Connotation
Villaggio Garibaldi	Giuseppe Garibaldi	Risorgimento
Villaggio Mameli	Goffredo Mameli	
Borgata Micca	Pietro Micca	
Borgo Tazzoli	Enrico Tazzoli	
Villaggio Oberdan	Guglielmo Oberdan	Irredentism
Villaggio Battisti	Cesare Battisti	
Borgata Filzi	Fabio Filzi	
Borgata Sauro	Nazario Sauro	
Villaggio Crispi	Francesco Crispi	Colonialism
Villaggio Razza	Luigi Razza	
Villaggio Di Savoia	Luigi Di Savoia	
Villaggio Giordani	Giulio Giordani	Fascism
Villaggio Berta	Giovanni Berta	
Villaggio Breviglieri	Arturo Breviglieri	
Villaggio Bianchi	Michele Bianchi	
Villaggio Gioda	Mario Gioda	
Villaggio Baracca	Francesco Baracca	Militarism (aviation)
Villaggio Oliveti	Ivo Oliveti	
Villaggio Maddalena	Umberto Maddalena	
Villaggio D'Annunzio	Gabriele D'Annunzio	Irredentism, Colonialism, Aviation

Table of centre names, personalities and "connotation."

Villaggio Marconi (Marconi rural centre). Then he passes to Guglielmo Marconi, "the great investigator of the occult forces of space", the reference is to the man of science, an example of patriotism and Italian genius, close, for political positions, to the Fascist regime[5].

The toponyms were applied to the territory (and in this way its significance was made more explicit) and in addition an iconography was created for that purpose: usually monuments were erected bearing commemorative phrases relating to the personalities the villages were named after. For example, in the main square of D'Annunzio centre there is a commemorative monument dedicated to the poet, engraved with a motto "he gave wings to dreams, to hopes, to trials (diede ala ai sogni alle speranze ai cimenti)" (Capresi, 2009, p. 264). In the square of Breviglieri centre there is a well with a commemorative plaque. A similar commemorative plaque was present at Bianchi rural centre.

Fig. 5 - The well with a commemorative plaque in the main square of Breviglieri rural centre.

[5] Balbo does not mention in his writing *Borgata Corradini*, named after the colonialist Enrico Corradini, and *Borgata Torelli*, named after a General Torelli (who died in Tecnis in 1913). Despite the fact that they were not mentioned in writing, perhaps because they were inaugurated after Balbo's article, the meanings linked to their names – colonialism and militarism – are perfectly coherent with the network of meanings already identified that connoted the territory. The *Villaggio Beda Littoria*, also not mentioned by Balbo, derives the toponym from the union of the original toponym (al-Bayda) with the Fascist symbol of the "Fascio Littorio". It was one of the first rural centres realized (1933-34) and it was built probably before the designation project desired by Balbo took shape. A separate discussion must be made for the eight rural centres built for the indigenous population. Their names (Fiorita/Zahra, Alba/El Fager, Nuova/Gedida, Verde/Chadra, Risorta/Nahiba, Vittoriosa/Mansura, Fiorente/Mahamura, Deliziosa/Naima) refer to the more general meanings of fertility, regeneration, rebirth and victory - general meanings that although in line with the Fascist principles could also be accepted by Libyan population.

Il Maresciallo Balbo parla dell'Eroe dei due mondi ai coloni del villaggio "Garibaldi„

IL VILLAGGIO GARIBALDI E CAPRERA

"Ei porta seco un sacco di semente„

La terra di Caprera, recata dal Podestà della Maddalena al villaggio libico Garibaldi, evoca un agricoltore poco noto nel Duce dei Mille. Solo Gabriele d'Annunzio ha colto questo profilo dell'Eroe nella « Notte di Caprera », ma è certo che il Poeta attingeva alle migliori fonti della storia garibaldina.

In quel poemetto, o frammento epico, i cenni all'agricoltore Garibaldi sono rapidi ma tutti sicuri ed indimenticabili. Già nel crepuscolare esordio si disegna d'improvviso il seminatore:

Donato il regno al sopraggiunto re,
il dittatore silenziosamente
sul far dell'alba con pochi suoi sen viene
alla marina ove la nave attende.
Ei porta seco un sacco di semente.

Più lungi nel traversare un campo che un contadino arava, il dittatore sgiudicò del dritto solco. Il poemetto si chiude con un'eccelsa nota pastorale. L'uomo di Caprera ha ricondotto all'ovile un agnello.

Nitrire i suoi cavalli di battaglia
ode all'aperto; respira: « oh, libertà! ».
Poi, zufolando nei modi della Pampa
e dell'Oceano, pascola verso il mare.

Chi è stato a Caprera, non pensa in sulle prime che Garibaldi possa essere stato agricoltore. Quella che il visitatore ha dinnanzi a sè non è certo «l'arabile»: è una roccia ferrigna. L'isolotto, che un ponte congiunge alla Maddalena, non ha, si direbbe, un palmo di terra coltivabile.

Soltanto nel giungere alla casa dell'Eroe, ci si accorge d'un po' di giardino, o d'orto, che le verdeggia attorno. Le esperienze di Garibaldi agricoltore non possono essere state di molto estese ma tanto più intense, forse, e grate, quanto più raccolte. Nella Canzone di Caprera, il solitario si duol d'un pane che manca alla sua fame sì mattiniera: e l'orticello di Caprera non poteva, certo, bastare a nutrirlo. L'isolotto non poteva dargli che il suo corroborante silenzio.

Quivi piazzato nella sua verità
ei può sognare: nè quel silenzio mai
gli mancherà sopra il fragor del mare.

Caprera doveva avere i suoi pascoli pei cavalli e pel piccolo gregge che Ga-

Fig. 6 - The article in the magazine "Libia" celebrating the Italian hero Giuseppe Garibaldi at the rural centre that had his name.

In some cases, public ceremonies were held in honour of the personalities who gave their names to the centre, as happened in Villaggio Garibaldi in 1940. The news of this celebration was widely published by the Libyan magazines of the time[6] (Ser Ristoro, Libia, 1940, pp. 2-3).

It appears very clear that the names of the rural centres of intensive demographic colonization, through the use of the metaphorical relationship, were referred to as a series of meanings linked to the "Risorgimento", "irredentism", "colonialism", "Fascism" and "militarism" (basically linked to aviation).

It was thus confirmed that the denomination, the activity of giving a name to a space, is the social activity with which a community applies symbols to a space, in

[6] On that occasion, in fact, the podestà of Maddalena visited the village carrying a trunk containing the soil of Caprera, the island of the famous Italian condottiero. The delivery of the trunk to the village took place with an important ceremony in which Italo Balbo took part.

this way transforming space into territory, an activity that has to do with cognition and communication[7]. Once this activity is carried out, the territory has no longer a neutral function, but through these symbols it influences social action[8].

In the case of colonial villages this activity was not naturally carried out by the community established there, but was designed and implemented by a colonial political elite who built a radical programme of material and symbolic modification of the territory inspired by the ideas and by the values of the Fascist regime. This realized a strong symbolic characterization of the space disseminating it with symbols that marked it out as a semiotic field (Casti, 1998, 2013) that referred to the values of Fascist ideology. Within this strongly ideological territory, thanks to these symbolic anchors, the individual recovered a precise identity and acted by experiencing an integration between himself and the surrounding environment.

Fig. 7 - Map of Italian rural centres of Western Libya: in red the metaphorical meanings.

The different semantic codes of toponyms relate them to each other as they belong to the vast semantic area connected to the concept of "nationalism". The semantic code of "nationalism" organizes the territorial semiosis, creating a network of signification that covers the whole territory and strongly connotes it. First of all, the Risorgimento, the basic semantic code that precedes all the others. It refers to "that complex spiritual and political process, that series of economic

[7] Says Turco: "It is one of the great segments through which human groups take away the earth's surface from its primitive condition of nature and give it the new status of culture" (Turco, 1999, p. 12, translated by the Author).

[8] "We know the circularity of the link that connects society and territory: the first, if we want to say so, builds the second, which in turn becomes an element of social functioning and reproduction" (Ibidem).

and social transformations, of literary and cultural attitudes, of diplomatic and military events, that between the end of the 18th and 19th centuries brought Italy from secular political division to unity, from foreign domination to national independence" (Treccani, *Enciclopedie on line*, *ad vocem* "Risorgimento", translated by the Author). After, the irredentism, in fact, as a struggle against Austria, constituted the true continuation of the Risorgimento, and, through interventionism, war and the post-war period, and therefore Fiume and the Dalmatian question, constituted the direct and visible conjunction between the Risorgimento and Fascism. With colonialism, nationalism becomes imperialism and finally with Fascism it is affirmed to the highest degree.

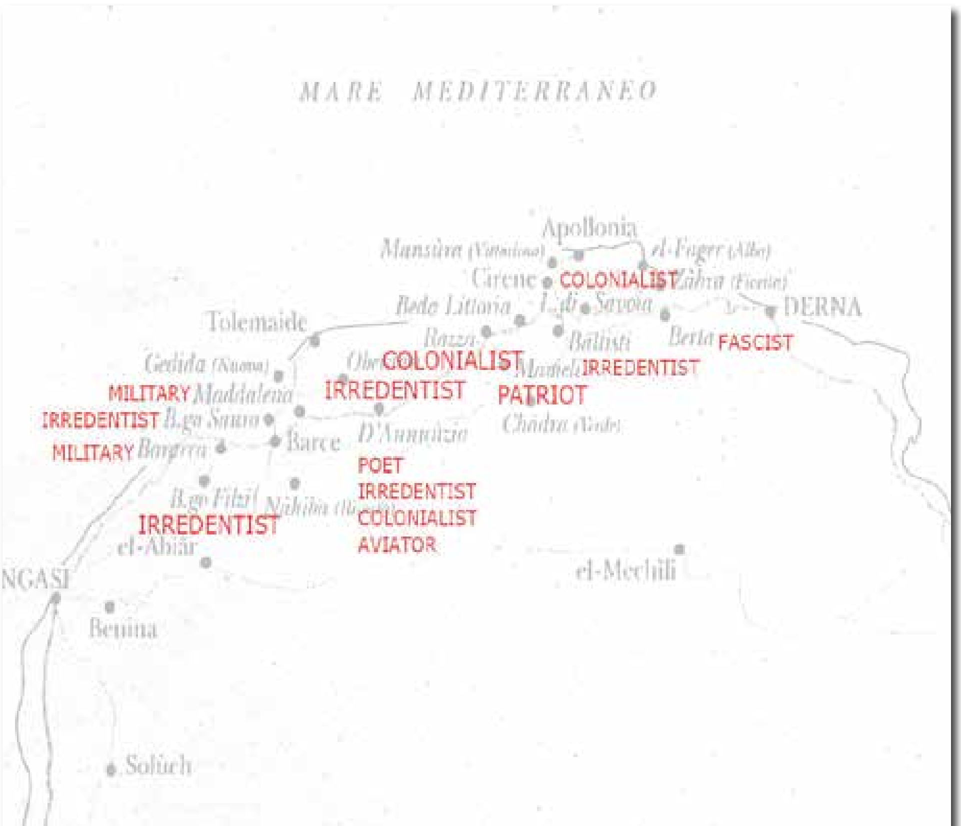

Fig. 8 - Map of Italian rural centres of Eastern Libya: in red the metaphorical meanings.

Within this symbolic activity we find the presence of symbols connected to the past, to the values of reference of the ideology and of its roots, such as those linked to the Risorgimento and to the irredentism, and those related to the normative aspects of the denomination, which suggested what characteristics the "new man" should have; he had to be "military", "colonial" and "Fascist". In this way the toponymic network established the skills, social compatibility and areas of legitimacy of the individual.

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Urban toponymy in Shanghai and Tianjin before the rise of the People's Republic of China. The presence of Italian road names

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Abstract

In the period encompassed between the First Opium War (1839-1842) and the rise of the PRC (1949), China experienced a quasi-colonial régime in several cities, where foreign concessions were located. These were the cases of Shanghai and Tianjin: the so-called 'Paris of the East' saw the institution of British, American and French concessions (the first two merged, in 1863, in the so-called Shanghai's International Settlement), while the second urban area, between the late 19th and the early 20th centuries, was opened to the establishment of eight foreign settlements. In Shanghai, through the decades, there was development of a small Italian community, mostly from Lombardy, focused mainly on silk production and trade; the traditional good relations between France and Italy and some cultural aspects in common (e.g. Catholic religion) formed the basis for some official road names related to Italy in Shanghai's French concession. In Tianjin, the Kingdom of Italy gained a formal concession after having joined the Eight-Nation Alliance in the framework of the Boxer Rebellion (1899-1901); here the official toponymy was completely in the Italian language, as a reflection of the Italian power. In both cases, the Italian road names underwent a drastic removal after the rise of the People's Republic of China. The paper will discuss geo-historical issues related to this peculiar Italian toponymy established in the Far East, and its present-day situation.

Keywords: *Italy and China, urban toponymy, Shanghai, Shanghai's French Concession, Tianjin, Tianjin's Italian Concession.*

The historical background: the 'Century of Humiliation' and the Foreign Concessions in China

In the framework of the decadence of the Chinese Empire during the late Qing Dynasty, Western countries adopted an aggressive policy of imperialism in the Far East.

The defeat of China during the First Opium War (1839-1842), the Treaty of Nanjing (1842) and the subsequent 'Unequal Treaties' implied a deeper penetration of the Western powers, led by the British Empire, in the Middle Kingdom: at a first stage, the five ports of Guangzhou, Amoy (present-day Xiamen), Fuzhou, Ningbo and Shanghai were opened to the international trade; in the following years, in particular after the Second Opium War (1856-1860) and the Treaty of Tianjin

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(1858), several other cities located on the Chinese coastline followed the same pattern.

In these urban areas, Western countries settled close to the original native cities. Their 'concessions' were urban bodies, founded, on the basis of a sort of permanent lease by the Chinese side in a quasi-colonial regime, under the principle of extraterritoriality, whose planning, architecture and official languages were a reflection of the respective home countries.

This period of Western imperialism over China, which had survived even to the transition from the Qing Empire to the Republic of China (1912), encompassed the time between the First Opium War and the rise of the PRC (1949). This phase was later renamed, in the Chinese scientific literature, the 'Century of Humiliation', and still today is frequently considered through the filter of Marxism and Nationalism.

In particular, Shanghai was the city, among the five original Treaty ports opened to the Western presence, which experienced the most impressive boom, skipping, in a few decades, from a market town in the Yangtze River Delta to a cosmopolitan metropolis based on mercantilism. As a reflection of this urban growth on a large scale, made of light and shadow, Shanghai was renamed in the West with clichés such as the 'Paris of the East', the 'Pearl of the East', the 'City for Sale' or the 'Opium City'. Here, the British Empire, the USA and France built their concessions right after the Treaty of Nanjing. The first two merged in 1863 into the so-called Shanghai's International Settlement, put under the common Anglo-Saxon aegis; vice versa, the French Concession was developed independently.

The case of Tianjin, for centuries Beijing's riverine port and specializing in salt production, was different. Opened to the British and the French presence since 1860, it later became the Chinese city with the highest number of foreign concessions (eight in total). Among these, there was an Italian settlement (the only formal concession which Italy held in China and, more generally, the only Italian quasi-colonial territory in Asia), obtained after the Kingdom of Italy had joined the Eight Nation Alliance during the Boxer Rebellion (1899-1901).

Italian road names in Shanghai's French Concession

In Shanghai's International Settlement, the lingua franca and, as a consequence, the urban toponymy, was in English; in the French Concession, both these elements were in French. Conventionally, in English, the urban place names and the addresses in all the foreign concessions in China before 1949 were based on the term 'road' only, while other words as 'street' or 'avenue' were not formally used there.

Even though Shanghai's concessions were under British, American and French umbrellas, not all the residents here were from these three countries.

This was the case of the Italians; the 'Paris of the East', through the decades, hosted a small Italian community, mostly from Lombardy, focused mainly on silk production and trade (Piastra, 2017a).

The traditional good relations between France and Italy, the linkage between the House of Savoy and France (the region of Savoy had passed to France after the

Second Italian War of Independence in 1860), some cultural aspects in common (e.g. Catholic religion) and a high degree of integration (for example, from the 1890s, the French Council of the French Concession had an Italian among its members) formed the basis for some official road names related to Italy in newly built blocks (late 19th-early 20th centuries) of Shanghai's French concession (Piastra, 2013a, p. 80, tab. 2; Piastra, 2013b, p. 14, tab. 2):

- Route Ghisi, created around 1910 (French, 2010, p. 202) and named after Italian Ernesto Ghisi, from Milan: silk businessman, member of the Council of the French Concession in Shanghai, Director of the office of the Italian Consulate in the 'Paris of the East' from 1889 to 1900, Italian honorary consul from 1900 to 1901; in his late age, he moved back to Italy. The road was located in a Shanghai zone informally known, in the 1920s-1930s, as 'Little Russia', mainly populated, after 1917, by Russian refugees. To underline these dynamics, in 1937 a statue of Aleksandr Sergeevič Puškin (currently, still visible) was unveiled in a corner of route Ghisi (Fig. 1);
- Rue Victor Emmanuel III, named after the King of Italy;
- Rue Maresca, named after Francesco Saverio Maresca (1806-1855), from Naples (like many Italian priests in East China in this phase), Italian Catholic Bishop based in Nanjing (under whose diocese Shanghai was located) from 1848 to 1855;
- Rue du Marco Polo, referring not directly to the Venetian trader, but named after the homonym Italian war ship, which supported French troops in China and was also involved in the Sino-Italian Crisis related to the Italian attempt (1898-1899) to settle an outpost in Sanmen Bay (Zhejiang Province).

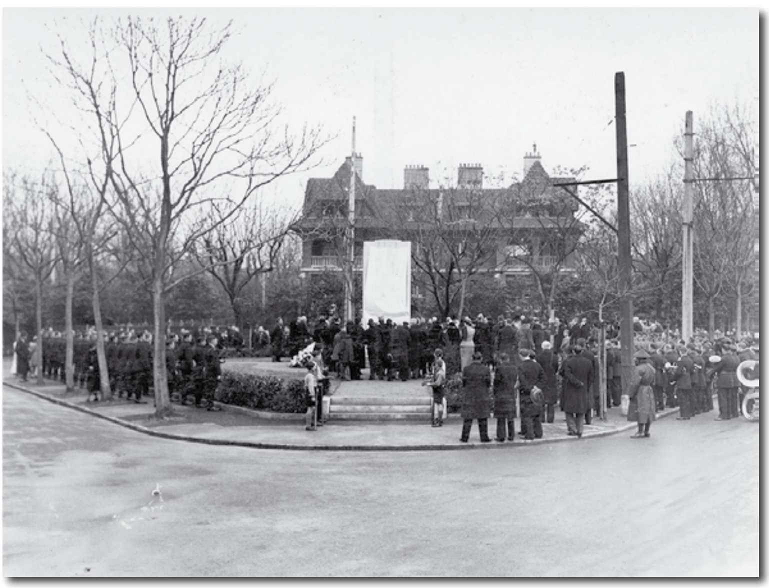

Fig. 1 - Unveiling of a statue of Aleksandr Sergeevič Puškin in a corner of route Ghisi, in the 'Little Russia' of Shanghai's French Concession, 1937 (Source: https://avezink.livejournal.com/83998.html).

In particular, the tribute of a road of Shanghai's French Concession for the King of Italy is clear evidence of the significant role of the Italians in the dynamics of this settlement.

Italian road names in Tianjin's Italian Concession

The Kingdom of Italy gained the smallest foreign concession in Tianjin after its intervention in the Boxer Rebellion.

The area, originally characterized by marshes, salt pans, a cemetery and a Chinese village (Fig. 2), was reclaimed and urbanized, taking a couple of decades, because of the underfunding of the programme by the Italian government. After the first phase, during which the urban network and some buildings in Art Nouveau style were completed, a second phase of urbanization, which followed a rationalist style, took place under the Fascist regime (Nuzzo, 2002; Marinelli, 2009; Marinelli, 2013).

Fig. 2 - The Italian Concession in Tianjin in the early 20th century: before the reclamation and urbanization works, it was originally characterized by marshes, salt pans, a cemetery and a small Chinese village (Source: Fileti, 1921).

Unlike the case of Shanghai, in general the Italian residents of the concession were not traders or businessmen who had moved here on a voluntary basis. They had been relocated here as diplomatic, bureaucratic or police staff under the governmental or Fascist umbrellas.

In Tianjin's Italian Concession the lingua franca and the official toponymy were in the Italian language. The official place names chosen for the road network, which were institutionalized in the late 1910s-early 1920s and were reported on the maps of the time (Figs. 3-4), show a clear ideological and nationalistic dimension, reflection of the fact that a concession was a political concept, obtained after the conflict of war, and had intersections with foreign policy (Castelnovi, 2016, p. 91; Piastra, 2017b, pp. 116-118):

Fig. 3 - Northern sector of the Italian Concession in Tianjin in the early 1920s. The north-east corner of the settlement hosted two blocks almost entirely occupied by public buildings (the Italian Consulate, the offices of the Municipality, the Police station). The official toponymy was in Italian (Source: Fileti, 1921).

Fig. 4 - Southern sector of the Italian Concession in Tianjin in the early 1920s, with the Italian quay on the Hai River ('Hai ho' in the map). The official toponymy was in Italian (Source: Fileti, 1921).

- some roads and squares were dedicated to the House of Savoy: 'piazza Regina Elena' (after Elena of Montenegro, Victor Emmanuel III's wife); 'via Principe di Udine' (after Ferdinando di Savoia-Genova, WWI hero); 'corso Vittorio Emanuele III' (after the King of Italy);
- some roads referred to the three capital cities of the Kingdom of Italy ('via Torino' [Turin]; 'via Firenze' [Florence]; 'via Roma' [Rome]);
- some roads were dedicated to prominent Italian diplomats: 'via Marchese di San Giuliano', after Antonino Paternò Castello, marquis of San Giuliano, who negotiated the alliance between Italy and the Triple Entente; 'via Salvago Raggi', after Giuseppe Salvago Raggi, Italian Ambassador in China, based in Beijing during the siege of the international legations in the framework of the Boxer Rebellion; 'via Conte Gallina', after Giovanni Gallina, Italian Ambassador in China between 1901 and 1904, just after the end of the Boxer Rebellion and during the early stage of the establishment of the Italian Concession in Tianjin;
- some road names referred to Italian military issues in China: 'via Vettor Pisani', after an Italian war ship which travelled extensively in seas and rivers of China (the road name was later erased and renamed after Vincenzo Rossi); 'via Ermanno Carlotto' and 'via Vincenzo Rossi', after two Italian soldiers killed during the Boxer Rebellion, which started to be considered by the Italian side as 'Italian martyrs' in China;
- some roads received their names after leading Italian figures in the framework of the Sino-Italian relations in a long term perspective ('via Marco Polo'; 'via Matteo Ricci');
- on the perimeter of the Italian concession, road names referred to cities that Italy had gained or claimed after WWI ('via Trento'; 'via Trieste'; 'via Zara' [Zadar]; 'via Fiume' [Rijeka]), or cities located in Italian colonies ('via Tripoli').

The presence, in the urban toponymy of the concession, both of cultural ('via Marco Polo'; 'via Matteo Ricci') and military figures/units ('via Vettor Pisani'/'via Vincenzo Rossi'; 'via Ermanno Carlotto'), associated with Sino-Italian issues, aimed at showing a double (and ambiguous) dimension of the Italian policy in the Far East: as a first choice, based on a peaceful approach, but if necessary, capable of military intervention.

The nationalistic emphasis and pride were evident in relation with those road names directly linked to the victory of the Eight-Nation Alliance against the Boxers ('via Ermanno Carlotto'; 'via Vincenzo Rossi'; 'via Salvago Raggi'), on the basis of which Italy was granted the concession.

Moreover, the road name 'via Trieste', located to the west on the border between the Italian Concession and the former Austrian Concession (the latter returned to the Republic of China in 1917 just before the end of WWI), referred to the city of Trieste, which together with Trento, had become, from the Italian perspective, a symbol of the Austrian oppression and Italian Irredentism, whose liberation was considered one of the main targets of the Italian involvement in the war. After the end of WWI, and after Trieste had been fully incorporated into the Kingdom of Italy, this road name, together with the twin road name 'Trento' and the monument located in piazza Regina Elena, became tangible and intangible evidence to underline and celebrate (see the photo published in Cardano, Porzio, 2004, p. 41), also in the Far East, the Italian victory over the Austro-Hungarian Empire.

The presence of 'via Tripoli' aimed at creating a virtual linkage between two colonial Italian territories (even though, as a matter of fact, the Concession of Tianjin was not properly a colony), in the broader context to prove, both to China and other countries present in the region, that Italy also was a colonial power.

Such a nationalistic footprint of the toponymy of the Concession, and the absence, among the dedication of road names, of figures or facts reconsidered negatively by Fascism, made possible a conservation, under the Fascist regime, of the original place names instituted in the late 1910s-early 1920s.

The present-day situation

In 1949 the Chinese Communist Party (CCP), led by Mao Zedong, took power in mainland China, and the People's Republic of China was founded. Most foreigners resident in China were then forced to leave; all the foreign concessions, already abolished, were fully integrated into the new Chinese system.

The new course gave great emphasis to ideology: after 1949, the signs, both tangible and intangible, of what was now considered the Western capitalistic oppression and corruption had to be destroyed or removed.

A peak of this anti-foreign policy was the Chinese Cultural Revolution, between the late 1960s and the early 1970s.

The anti-Western campaign launched by CCP in the first decades of the PRC involved buildings (e.g. Christian churches, which were deconsecrated or torn down), but also the foreign-language place names of the former concessions. In most of the cases these were erased and replaced by new place names in the Chinese language, written in Chinese characters (in this paper transliterated in Pinyin) (Huang, 2016).

In the former French Concession of Shanghai, the original place names related to Italy underwent a drastic change: route Ghisi became now Yueyang Road, after a city of Hunan Province; rue du Marco Polo became Longmen Road, after a county of Guangdong Province; rue Maresca turned into Wuyuan Road, after a county in Inner Mongolia Province; rue Victor Emmanuel III became Shaoxing Road, after a city in Zhejiang Province. This was clearly a political strategy of PRC to replace the former foreign toponymy with a new 'national' toponymy, based on Chinese geography and Chinese place names.

Also in the former Italian Concession in Tianjin, returned to China since 1947, the place name substitution was total, but it followed a different pattern. The new Chinese toponymy had a higher ideological content, referring to PRC's ideals and Marxist propaganda, probably as a reaction to the only concession in China granted to Italy, a Fascist country and allied to Japan, defeated by PRC in WWII. In this framework, 'corso Vittorio Emanuele III' was renamed, in Chinese, 'Foundation [of the PRC] Road'; 'via Principe di Udine' and 'via Firenze' merged into 'People's Wealth Road'; 'via Roma' and 'via Marco Polo' merged into 'National

Road'; 'via Marchese di San Giuliano' was renamed 'Universal Brotherhood Road'; 'via Matteo Ricci' and 'via Salvago Raggi' merged into 'Light Road'; 'via Conte Gallina' became 'Reconquest Road'; 'via Ermanno Carlotto' turned into 'Progress Road'; 'via Vincenzo Rossi' became 'Democracy Road'; 'via Trieste' turned into 'Victory Road'; 'via Fiume', 'via Zara', 'via Tripoli' became 'Prosperity Road', 'Freedom Road' and 'Civil Rights Road' respectively.

These toponymic replacements also affected 'via Matteo Ricci' and 'via Marco Polo'; although they were named for positive figures in the framework of the peaceful encounter between East and West, in this stage they were expunged as any other Western influence or element.

Both in Shanghai and Tianjin, the new urban toponymy in the Chinese language adopted by PRC after 1949 is still today official.

In continuity with the pre-1949 situation, the official translation from Chinese into the English language (as given by Chinese authorities) of the urban place names and addresses is still based on the term 'road' only, avoiding the use of other English words such as 'street' or 'avenue'.

In the last decade or so, under the Chinese new course instituted by Deng Xiaoping's Reforms, the former Italian Concession in Tianjin, until then in critical structural condition and characterized by urban decay, was involved in a very large programme of urban regeneration, driven by the local municipality (currently, under the direct administration of the central government and listed among the four national central cities of the People's Republic of China). On the basis of a joint Sino-Italian cooperation (Cardano, Porzio, 2004; Orlandi, 2005), the former Italian concession was restored, and re-invented as a luxury quarter for leisure for the emerging Chinese middle class, with restaurants, clubs, shops and pedestrian streets. The balance of the programme is controversial: from one side, it saved an architectural and memory heritage, which was threatened; from the other side, the 'New Italian-Style Town in Tianjin' (Xin Yi Jie), the new denomination of the area (Fig. 5), sometimes quoted also as 'Italian-Style Scenic Neighbourhood' or 'Italian Business Park' (Yishi fengqingqu) (Marinelli, 2010a, p. 68), now looks overcommercialized and 'fake'. According to Maurizio Marinelli, "an Italian-style neighbourhood, a miniature Disneyland-style venue of «Italianness» or «Italian spirit» (e.g. according to the rhetoric trope of «Italianità»), constructed especially in terms of spatial re-presentation and cultural superimposition" (Marinelli 2007, p. 119; see also Marinelli, 2010b). In particular, the use by the Chinese of the English language denomination 'Italian Business Park' for the international audience is highly significant indicating that commercial and speculative aims, and not cultural, were, and still today are, explicitly prevailing in the framework of the operation.

In this context, there was a last, recent toponymic change: former 'piazza Regina Elena', characterized by the monument of the Italian victory in WWI and after 1949 included within the new 'National Road', was changed in Chinese to 'Marco Polo Square' (Makeboluo Guangchang). A new statue of Marco Polo was also located in the neighbourhood. In other words, a place name already attested for another road, conterminous to 'piazza Regina Elena', in the original toponymy of the concession, was re-used and was now instrumental to underline, through the figure of a trader who came in the Yuan Empire in peace, the new course of friendship between present-day China and Italy. Significantly enough, the recent choice to re-use an Italian figure, already present in the original toponymy of the settlement, to virtually strengthen Sino-Italian relations, was knowingly centred on Marco Polo, a trader and a traveller. It was not centred on Matteo Ricci (also with a road dedicated to him in the concession), who, from a cultural point of view, was more important than the Venetian trader and nowadays more famous among the Chinese, but a Catholic Jesuit, so still raising a sensitive question in present-day China, in the broader context of the problematic relations among PRC, the Vatican City and other Western countries regarding religious freedom.

Fig. 5 - Present-day view of the former Italian Concession in Tianjin, renamed 'New Italian-Style Town' (Xin Yi Jie), after the recent urban regeneration programme which transformed the zone in an area for shopping and night life. In the background of the photo, former piazza Regina Elena, characterized by the monument of the Italian victory in WWI, recently renamed in Chinese language 'Marco Polo Square' (Makeboluo Guangchang), is visible (photo by S. Piastra, 2017).

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Le toponyme, une valeur patrimoniale

Élisabeth Calvarin*

Résumé

Naturellement, nous nommons les choses, tout ce qui nous entoure. Les noms de lieux sont un langage à un moment donné, c'est-à-dire une signification par des mots convenus de l'espace dans lequel on vit. Les générations passent, les langages évoluent. Les noms donnés aux lieux ne suivent pas toujours l'évolution du langage. À un moment donné, ils cessent d'être employés pour ce qu'ils signifient, se figent et peuvent perdre leur sens ou leur nature. Un toponyme est le reflet de la vie.

Mots-clef: *toponyme, lieu, langue, patrimoine.*

Rappelons-nous que la toponymie remonte loin dans le temps. Les hommes ont toujours parcouru la Terre et ont nommé les éléments naturels, eau ou terrain, puis les éléments construits, villages, villes, ouvrages d'art ou de génie qu'ils ont réalisés. Un toponyme est une dénomination en rapport étroit avec un objet géographique déterminé et le groupe humain qui l'utilise. De par leur nature, les noms géographiques sont des liens entre espace et langage et sont à la fois supports de la science et véhicules de la culture (Fig. 1); leur fonction première étant d'identifier un lieu de façon non équivoque.

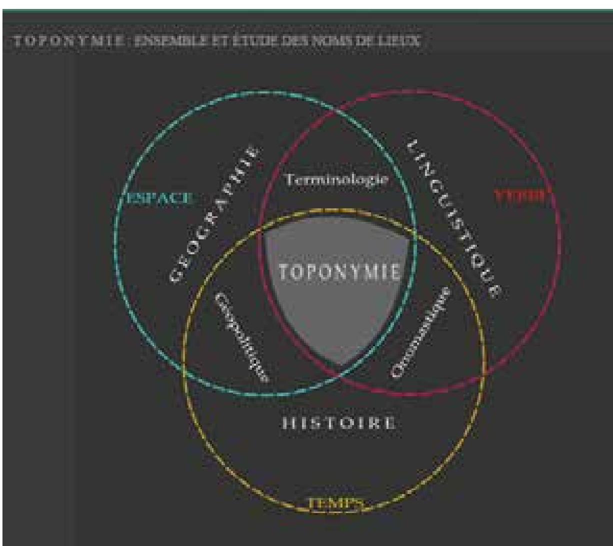

Fig. - 1 La toponymie et les sciences humaines (CNT/CNIG).

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Généralités

Comme partout, les noms de lieux en France ont été créés par le peuple installé à l'endroit désigné et dans la langue qui y était parlée (Fig. 2). Les noms nous environnent, et tous ces noms ont un sens. En général ils sont à valeur topographique. Le village, le lieudit tirent leur désignation de la représentation de la végétation, des arbres caractéristiques qui y croissent (chêne, hêtre, tilleul, charme…), des particularités du relief (montagne, colline, plage de sable…), de l'hydrographie (cours d'eau, confluent, mare, puits, source…), des animaux mêmes (domestiques, sanglier, blaireau…). Le peuplement, au sens le plus général, c'est-à-dire tout ce qui marque l'implantation de la population sur le sol (villages, chemins, cultures…) montre l'importance de ce qui est permanent et de ce qui est temporaire. L'anthroponymie fournit son contingent de noms de lieux : le plus souvent elle rappelle le nom d'une personnalité locale, d'un peuple, d'une collectivité.

Le mouvement des peuples lie nécessairement la toponymie au sujet fort complexe de la langue. C'est ainsi que nous pouvons dire que l'essence même de la toponymie est avant tout de nature linguistique. Par ailleurs, la relation entre un nom et un lieu se situe dans le temps et contribue à faire de cette appellation un témoin du passé ou du moins de retrouver quelques éléments de ce passé. C'est une marque culturelle au sens large qui entre naturellement dans le patrimoine de chaque nation. En outre, la création ou la modification des toponymes est différenciée suivant qu'il s'agit d'une entité administrative ou non. Si certains toponymes auront une valeur d'usage pérenne consacrée par la tradition et seront consignés sur le cadastre ou des cartes topographiques, d'autres soumis à la loi pourront être modifiés au fil des temps. Noms anciens et noms récents se côtoient, de même que les noms écrits et les noms oraux : il existe souvent plus d'un nom connu pour un lieu donné.

Le toponyme est sur la carte le localisant le plus évident, le plus accessible immédiatement et qu'il joue de ce fait un rôle essentiel : c'est pour l'usager de la carte le moyen de repérage le plus facile et le plus sûr. C'est la carte qui consacre un terme. Utile bien sûr aux particuliers, il l'est également aux administrations : c'est aussi l'administration qui consacre les toponymes en usage, encore faut-il que l'administration en ait vérifié la genèse, l'exactitude et le bien-fondé ! La toponymie ne rendra les services attendus que si elle est précise et exacte, si les noms sont bien ceux des entités désignées, s'ils sont identifiables ou reconnaissables sur le terrain, s'ils sont en place, s'il y a relation biunivoque entre le toponyme et l'objet géographique désigné. La toponymie doit également demeurer aussi proche que possible de l'usage local car tout apport ou modification de toponyme en vue de lui donner une graphie correcte, logique, attestée par ailleurs doit être introduit en accord avec les utilisateurs locaux, et le respect de toutes ces conditions se heurte à de nombreuses difficultés, sans oublier que nous devons garder à l'esprit le pouvoir qu'a l'internet d'atteindre le monde entier. Du point de vue du patrimoine culturel et de l'identité locale et nationale, la valeur des toponymes est très appréciée. Les toponymes et leur signification, ainsi que l'histoire qu'ils véhiculent en tant qu'élément d'une langue, sont un motif suffisant pour leur enregistrement, leur conservation et leur diffusion.

Travailler sur tout type de cartes demande une certaine habitude des toponymes de ces cartes, sinon pour les comprendre, du moins pour les apprécier, pour savoir s'ils sont justes ou erronés, bref pour les connaître, les identifier, et en fin de compte, les lire. Il semble qu'un géographe doit savoir lire les termes d'une carte et que les toponymes correspondent aux termes exacts reconnus et employés par la population ou le pays intéressé. C'est alors qu'intervient le respect que l'on doit aux formes employées en premier lieu pour les intéressés. C'est un devoir de faire effort en vue de respecter l'usage du public. Le respect des toponymes dans leur authenticité et dans leur orthographe est l'un des aspects de cet effort.

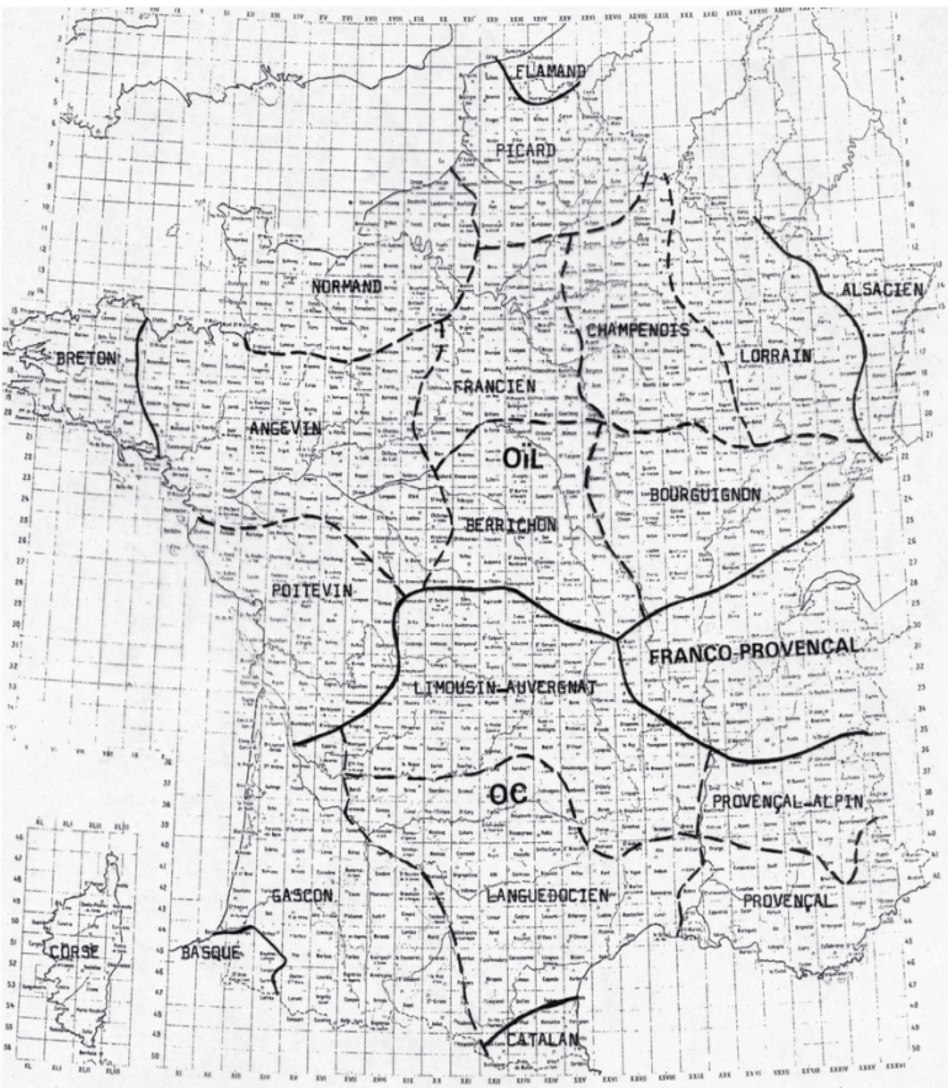

Fig. 2 - Les langues régionales en France métropolitaine (IGN).

Exemples

La France entretient des rapports intimes avec son territoire. Les noms de lieu implantés dans l'usage d'aujourd'hui ne tranchent pas sur ceux d'hier; ils les continuent; nous le constatons depuis la carte de Cassini (Fig. 3) jusqu'à aujourd'hui.

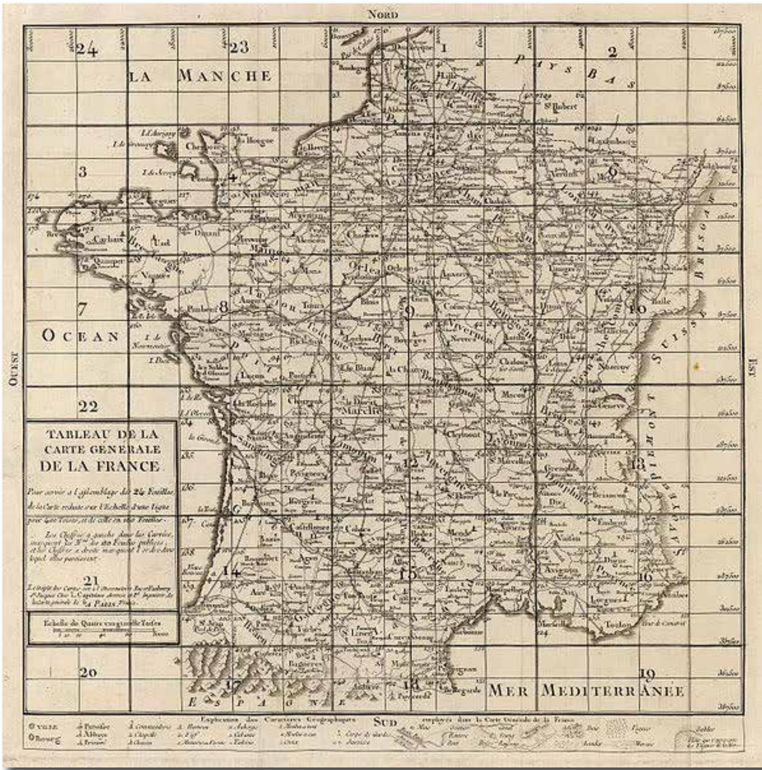

Fig. 3 - Tableau d'assemblage des cartes de Cassini (18e siècle).

Pour nous en tenir au temps imparti, nous nous contenterons d'un aperçu régional, avec le Limousin et le Velay. Ces régions sont caractérisées par un relief accidenté – des formes variées avec des hauteurs modérées, les vallées tantôt larges, tantôt resserrées entre des versants abrupts. Dans l'ensemble, une grande diversité. La toponymie évoque ces différents aspects. Les noms de lieux sont un langage à un moment donné, c'est-à-dire une signification par des mots convenus de l'espace dans lequel on vit – ici la zone du croissant mêlant la langue d'oïl à l'occitan.

Parmi les noms de lieux, très nombreux, il fallait faire un choix, c'est pourquoi nous traiterons seulement quatre cas. Nous commencerons la présentation par "Le Puy-en-Velay", puis en allant dans le Limousin, vers Guéret, nous passerons par "Bellessauve", remonterons vers Limoges avec "Pierre-Buffière", pour achever notre tour vers Tulle avec le « ruisseau du Rieutort". Ainsi ces quelques exemples feront intervenir le relief, la forêt, le vent et l'eau.

Prenons un grand classique dans la série des sommets. Le Puy (-en-Velay) (Fig. 4), et toute la série des variantes du puy, graphie que nous retrouvons tout autour du Puy et du Peuch. L'origine du mot puy vient de la transformation du latin classique podium devenu en latin vulgaire podiu “hauteur”, “petite éminence” voire “montagne élevée”. Cassini portait ce toponyme en tant que mont, et lieudit habité. Les générations passent, les langages évoluent. Les noms donnés aux lieux ne suivent pas toujours l’évolution du langage. A un moment donné, ils cessent d’être employés pour ce qu’ils signifient, se figent et peuvent perdre leur sens ou leur nature : sur le mont s’est construit une ville, qui a gardé le nom du mont.

Pour différencier le lieu des lieux homonymes, il lui fut adjoint un nom de pays, “le Velay”, nom tiré d’une tribu gauloise, les Velavii, nom venant de vel « meilleur, excellent”, qui a d’ailleurs donné en anglais well (bien).

Fig. 4 - Le Puy-en-Velay (Wikipedia).

Les toponymes sont des indices intéressants, des témoins d’une couverture forestière antérieure aux grands défrichements. En ce qui concerne le couvert végétal, en consultant le glossaire, nous trouvons sauve en ancien français, seauve en limousin, désignant une “forêt”. Ce mot sorti de l’usage n’est resté qu’en toponymie. Il a donné une Belle seauve, dans la Creuse. Ce toponyme a connu des fortunes diverses : remarquons que Cassini décrit une très belle forêt avec “Belsauve” (Fig. 5), que la base de données unifiée enregistre “Bellessauve”, n’en traduisant plus que des lambeaux dont le nom est sauvegardé par celui d’un village.

Fig. 5 - Belsauve (Bellessauve) Cassini 1797, IGN.

Cette même base de données ouvre une entrée avec un nom de chef-lieu de canton de la Haute-Vienne – Pierre-Buffière (Fig. 6) – venant de la forme occitane peyre “pierre” et de l’ancien occitan du 12e siècle bufeir “exposé au vent”, a pour signification “Rocher où souffle le vent”. Ce nom est intéressant aussi bien par la description du sol que par la valeur de son orientation. Cet éperon rocheux orienté vers le Nord, lieu de pierres exposé au vent, est significatif dans le paysage : les cartes nous le rendent bien.

Fig. 6 - Pierre-Buffière (carte d’État-Major 1820-1866, IGN).

Le “ruisseau”, désigné dans le glossaire par le mot occitan riu (du latin rivum) est accompagné de l’adjectif tort “tordu”. Il est vrai que son cours est sinueux. La base de données unifiée l’a enregistré sous sa redondance : ruisseau du Rieutort (Fig. 7), c’est-à-dire “le ruisseau du ruisseau sinueux”, attestant qu’à un moment donné le sens du terme générique s’est perdu. La carte de Cassini n’en indique pas le nom et le cours du ruisseau est peu précis.

Fig. 7 - Le ruisseau du Rieutort (1/25,000, 2018 IGN).

En bref

Comme les richesses de la nature, la toponymie, image du milieu humain auquel s'attache l'histoire, est une composante de la cartographie et un reflet de la vie. Les noms géographiques ne sont pas seulement des noms de lieu sur une carte ou l'indispensable composant de tout système d'information à références spatiales, ils constituent un patrimoine que nous devons gérer avec précaution, dans le respect des générations passées et dans l'intérêt des générations futures. Pour notre part, nous restons dans notre domaine, en mettant l'accent sur le profit de la linguistique au service de la toponymie dans l'écriture cartographique, pour le relevé propre du patrimoine toponymique par les autorités nationales elles-mêmes.

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Vernacular place names in Venetian cartography (17^{th}-18^{th} centuries): a case study

Arianna Lorenzon*

Abstract

In this paper will be examined a section of the 17th *and 18th centuries' Venetian cartography, which mapped the Terraferma [mainland] for political and financial purposes, specifically as an aid for collecting taxes. These maps show a rationalization in the territory's representation because of the necessity to display the legal partition of the land. Furthermore, data about the place and the owners were included in the corresponding registers. In the documents of Treviso's land valuations (c. 1680-1720) a permanence of the vernacular place names can be seen. The etymology of these toponyms recalls both the sites' natural and morphological characteristics, as well as their historical and economic uses, or the connection with religious traditions. Although they were partly eliminated from Napoleonic and Austrian cadastral maps, they are often still in use. Indeed, by means of a diachronic stratigraphy that can be built, it would be possible to recover the historical identity of various villages.*

Keywords: *Venice, modern cartography, vernacular toponymy, maps.*

Introduction

Vernacular place names are quite common to be found in the Venetian mainland ancient maps. The following case study concerns a specific section of the cartography that Venice ordered its mainland to produce between the 17th and 18th centuries. This type of cartography was a sort of instrumentum regni, having mapped the mainland for financial and political purposes, specifically as an aid for collecting taxes. It was drawn by means of homogeneous graphic techniques, that can be seen as a middle way between those used until the 17th century and those that can be found in Napoleonic and Austrian cadastres.

These maps show an increasing geometrization in the territory's depiction, as well as the permanence of some pictorial elements. Indeed, in the Modern Age, the land valuations consisted of written records and very few maps, which often resembled paintings displaying the most important records data. In the maps I refer to, the territory was represented from a zenithal perspective and, after individuating geographical regions such as streets, fields, rivers and woods, the mapmaker delineated the geometrical and legal partition of the land. After every parcel had been measured, data about the owners were included in the records, as well as the location and dimension of the tenures, the cultivations and the value of the individual parcels. For this purpose, a type of representation that could be defined 'scenographical' was used: the buildings and types of agricultural crops had to be recognizable, like the other economic activities.

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Besides, on the maps, the place names – of villages, streets, rivers, tenures, localities – were presented, in order to give a simpler reading of the image and a connection to the record, where the toponyms were similarly written. From these maps compared to those of the cadastres a permanence of several vernacular place names can be seen. Their etymology recalls both the sites' natural and morphological characteristics, as well as their historical and economic uses or connection with religious traditions. In the cadastral maps toponyms were only used to point out the names of villages, streets and rivers; moreover, they had often undergone a linguistic normalization or a change over time. Nevertheless, in some cases, they both are still in use or remembered. Indeed, some examples will be given, to show that it could be possible to recover the historical identity of various places.

Materials and methods

In the first instance, it is useful to underline that in the toponymic heritage an active cultural process of recognition and appropriation of the environment is settled. Therefore, it is acknowledged that this linguistic and cultural patrimony must be considered as a proper system of conceptual classification of the space, a sort of constantly evolving cognitive map.

The cartography that Venice required its mainland to produce between the 17th and 18th centuries was a kind of instrumentum regni, having mapped the mainland for financial and political purposes. Specifically, it was an aid for collecting taxes, drawn by means of homogeneous graphic techniques. After individuating geographical regions such as streets, fields, rivers and woods, every parcel must be measured. Hence, those data had to be displayed in the geometrical and legal partition of the lands, by means of a zenithal and 'scenographical' representation that made buildings, types of agricultural crops and economic activities recognizable.

Moreover, toponyms and uses of the lands were presented, in order to give a simpler reading of the image and an immediate connection to the records, where all the information – together with that about the owners – had to be included. The mainland vernacular place names' etymology recalls both the sites' natural and morphological characteristics, as well as their historical and economic uses or connection with religious traditions. Although in Napoleonic and Austrian cadastres they were not written in detail and they had, in some cases, undergone a linguistic normalization or a change – that happened again in the 19th and 20th centuries – they are frequently still in use, or at least remembered by the elderly. Indeed, with regard to giving an overview on this zone's toponymy, a list of examples with a current reference will follow: it will prove that it would be possible to recover the historical identity of several places by shaping a diachronic stratigraphy of the toponymy.

Broadly speaking, when it comes to talking about toponymy in this context, some questions concerning the historical background need an answer: how do these maps stand within the wide milieu of cartography? Were they meant for a special and distinct use? It must be clear that disciplines as historical geography, topography, cartography and toponymy are essential in aiming to reconstruct – even if partially, given the nature of these documents – the state of things in a certain territory. Indeed, in this case, cartography is a helpful marker because it was a governmental tool, useful for the mainland's administration: it was applied for territorial surveys and tax assessments. Accordingly, there are data about the management, uses and changes that had occurred in the territory and about the agents of change. Also, through toponymy's stratification it is possible to see how the environment and its identity have been changing and how the territory was perceived and represented.

Between the 14^{th} and 15^{th} centuries, Venice took over the mainland and had to give a new administrative order to it, thus the central government needed an image of the territory: these documents were crucial for the territorial interventions and the fees' imposition. Even if partial and symbolic representations of reality, maps were legal devices and, consequently, drawing become the probative cornerstone for the tax assessment operations. In fact, until then, territorial properties were described in registers; afterwards, a decorative element appeared and it was included in the authentic instruments corpus. Nevertheless, those maps resembled paintings rather than legal items: the territory and property representation was extremely pictorial (Fig. 1). Thereupon, a paradigm shift in this cartography was made; mapmakers started representing objects and territories by means of an increasingly homogeneous and impartial geometrization.

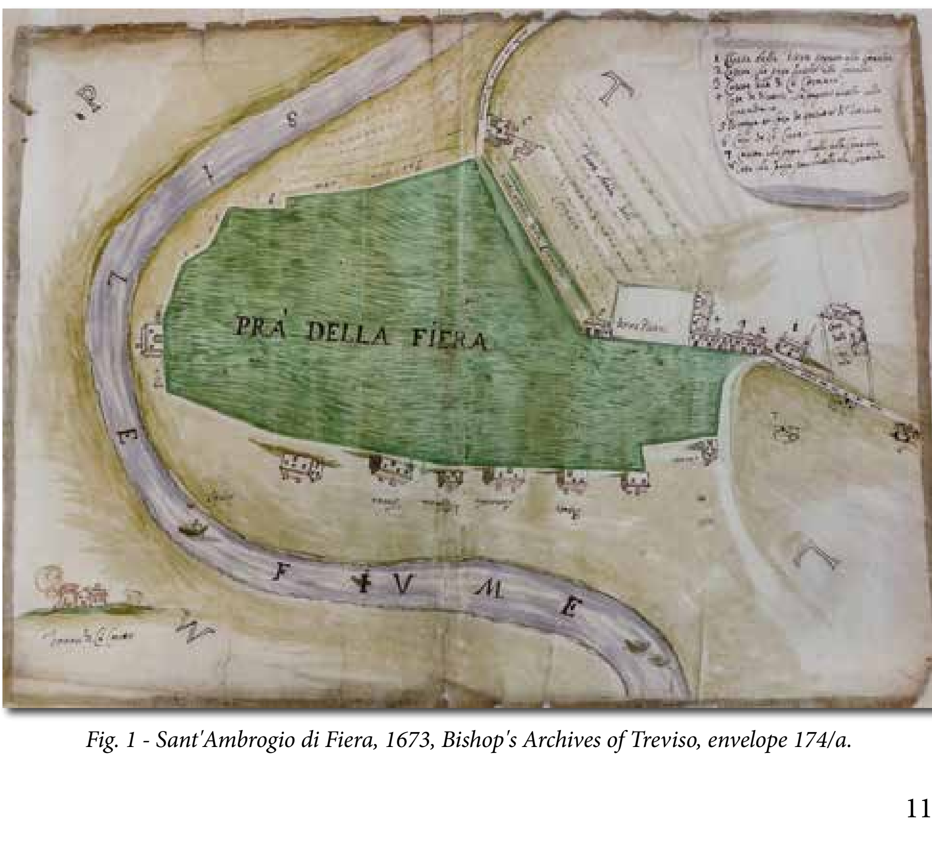

Fig. 1 - Sant'Ambrogio di Fiera, 1673, Bishop's Archives of Treviso, envelope 174/a.

Anyway, in both of these types of sources, data about ancient toponymy can be found. It is clear how maps are such an important source for toponymy, and how much this was influenced by the Venetian conquest, because of the imposition of new administrative divisions; some names were preserved (especially hydrotoponyms), some imposed (as chorotoponyms, that show the territorial modifications, e.g. the new suburbs), and some put side-by-side with the previous ones: these classes were specified on maps, as others regarding the territory's uses. Also, gradually, the written word – and so elements like cartouches, compass roses and signatures as well – started disappearing from the maps; this began to happen when a sequence of changes occurred to the toponymy of Treviso, a city under the Venetian dominion.

The maps I specifically refer to, among the others, show the status quo in Fiera and Porto (Figs. 1, 2a, 2b), villages of the periphery of Treviso. On the whole, the countryside outside the city walls was administratively subdivided into suburbs: Fiera and Porto were, together with many other (also mapped) villages, under the jurisdiction of the one called Zosagna. Those suburbs were valuated between c.1680-1720 and again in the 19th century. Furthermore, it must be known that the following maps, preserved in the State Archives and in the Bishop's Archives of Treviso, have to be interpreted together with the registers: in the depictions, the 'parcel numbers' stand for the valuated tenures (Figs. 3a, 3b). They, often supported by toponyms, made reading easier and updating the records: it was more straight forward when a conveyancing occurred. In the land valuations' books kept in the same archives, corresponding to a parcel number there is the mention of its owner; of the neighbours' properties – so as to avoid fights for the boundaries; and the description of the tenure: based on these aspects, the tax assessment could be calculated.

Fig. 2a - A. Calligaris, Villa di Porto, 1681, State Archives of Treviso, Ancient Maps collection, envelope 28/e, n. 350. 790x550 millimetres. Scale: Treviso's modern perches 100 = 59 millimetres.

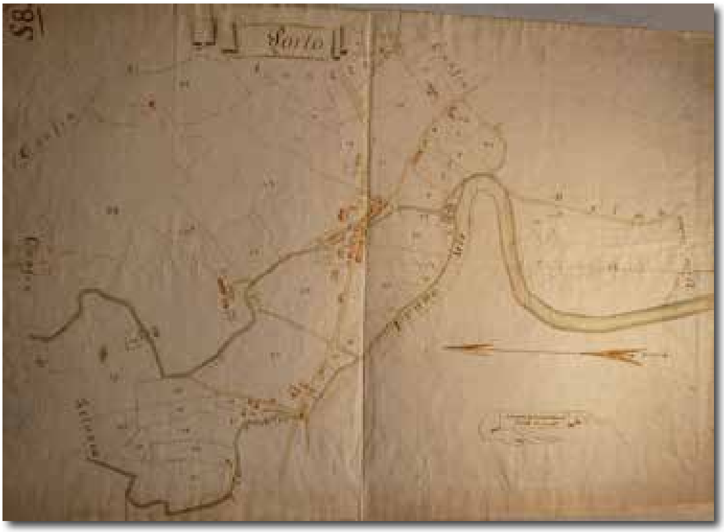

Fig. 2b - G. Rizzi, Villa di Porto, 1713, State Archives of Treviso, Ancient Maps collection, envelope 28/e n. 351. 510x740 millimetres. Scale: Treviso's modern perches 100 = 59 millimetres.

Figura 3b - G. Rizzi, Villa di Porto, 1713, State Archives of Treviso, Ancient Maps collection, envelope 28/e, n. 351, detail.

The degree of simplification in the representation was functional: the land, seen in a zenithal perspective and including differently coloured natural and artificial elements such as streets, fields, rivers and woods, was partitioned in defined parcels. The maps of 1681 and 1713 show a more formalized and less descriptive language; principally, the innovations concerned detailed drawing of the properties and the valuation criteria, which show a strict reference to the owners' fiscal capacity. The representation proceeded towards an increasing geometrization that made the depictions homogeneous and impartial as much as possible.

The creation of the maps required precise steps, including the demarcation of the tenure parcels, defining their proximity to other suburbs and properties and the owners' assessment; the valuation operations comprised of the tenures measurement, their value assessment and the calculation process, which converted the lands' data into a quantifiable monetary value. The graphic operations included the drawing up of the parcel's layout, from a zenithal point of view, plus the drawing up of buildings and economic activities from a scenographical perspective (i.e. frontally and in elevation). Even though the map had a fiscal purpose, the drawings disclose a quite intimate relationship between the mapmaker and the territory; they demonstrate a deep knowledge of the land: the graphic techniques, together with the toponyms set out, simulated an actual crossing of the territory.

4a - A. Calligaris, Villa di Porto, 1681, State Archives of Treviso, Ancient Maps collection, envelope 28/e, n. 350.

It is essential, at this point, to suggest some queries: how the mainland's toponymy was changing back then, and up to now? What was its role in this type of cartography? What type of relationship was there between toponymy, cartography and the natural and human landscape? Which toponymy categories had undergone more changes, and why?

Italian expert G. B. Pellegrini stated that toponymy has to be considered as a mainly linguistic discipline. According to him, the key is knowing the language spoken in the case study's place, searching for the meaning of toponyms and the identities of places. Here, the understanding of Treviso's vernacular language is essential: otherwise, interpretation of toponyms could be inexact; moreover, it must be known that toponymy in the mainland has pre-Roman, Roman, Germanic and Christian roots, before the Venetian takeover. Additionally, a main role is played by historical knowledge to explain the environmental changes: from cartography and the documents related to it, data about territorial and toponymic mutations can be obtained. Then, cross-checking them, it would be possible to reconstruct a diachronic stratigraphy of the toponyms used in a certain area, achieving quite a complete view on its landscape's evolution and identity (Figs. 4a, 4b, 4c).

Venice imposed on Treviso new chorotoponyms, odonyms to new streets, urban toponyms and ecotoponyms to the buildings they erected and the lands they had taken over economically. They did not often change hydrotoponyms, phytotoponyms, zootoponyms, hagiotoponyms (a transformation occurred when Italy's unification took place and during the Fascist regime). Toponymy played a fundamental role in the land valuations: it permitted the administrative knowledge of the land for the concrete purpose of dominion and use. Indeed, the toponym, in various situations, reflected the state and morphology of the place; this means the possibility to change it (e.g., the practicability to reclaim a swamp area so as to gain fields for agriculture).

4b - G. Rizzi, Villa di Porto, 1713, State Archives of Treviso, Ancient Maps collection, envelope 28/e, n. 351.

4c - Censo Stabile Attivato, 1849, Sant'Ambrogio di Fiera, detail State Archives of Treviso, Ancient Maps.

Results

It is possible, cross-analyzing these maps, to recognize and connect several toponyms. They can easily be classified in categories and used to start the construction of a diachronic stratigraphy, by means of a comparison with the cadastral and more recent maps. The suburb that included the north-eastern countryside of Treviso was called by the Venetian administration *Zosagna*. This no longer existing chorotoponym came from Latin sub amnes, that means "under water". In Treviso's dialect, zoso/zo, is "under, below": this region of poor drainage crossed by the river Sile easily went underwater because of floods and swamps. This suburb included some villages, such as *Fiera*, literally "fair". On its larger field, from the Medieval Age, took place one of the main annual fairs of ancient Northern Italy. This village is right outside the city walls, beside the river Sile and the Callalta street. In the modern land valuations it is remembered as *Borgo della Madonna detto alla Fiera*, which can be translated into Village dedicated to the Virgin Mary and known as Fiera (borgo stands for a village located outside the city walls; on the inside it was called contrada). Nowadays, it is replaced by the hagiotoponym *Sant'Ambrogio di Fiera*, a saint worshipped there; it was common to connect the name of a saint to that of a place, so as to invoke his protection on it. After Fiera, going east towards Venice, there is *Porto*, literally "harbour", where was located the last harbour of the river Sile, before the one of the city centre. After this there was *Melma*, which took the name from its still existing brook. In Lombardic language it means "thin sand" – therefore "sandy soil"– but there is archival information about arable land existing there. Its first mention, "super fluvio Mellema", goes back to 726 AD (Schiaparelli, 1933, v. 1, c. 39, pp. 134 et seq.) but the meaning of "mud" came later. Indeed, the brook has its headwaters in a place called *Fontane Bianche* ("white fountains"), a hydrotoponym that expresses the clarity of the spring waters.

These villages are now named Fiera and the last two Silea, a suburb that takes its hydrotoponym from the river Sile, the reason why Treviso and these villages were located there. It was first mentioned by Pliny the Elder in his Naturalis Historia (as Silis). Bartolomeo Burchiellati, a Treviso scholar of the Modern Age, said this name comes from Latin silens (silent), referring to its quiet waters. Recent studies affirm it comes from pre-Latin *sila (canal) or from the Indo - European root sel - (spring). Then, there are odonyms, such as *Callalta*_(from Latin Callis Alta, "elevated road") that connects Treviso to the ancient village of *Oderzo* (Opitergium) after the Roman one was no longer usable because of river Piave's floods. Indeed, it was reconstructed on an embankment. It is also known as Via Postumia, which is actually a parallel road near it and east-west oriented. The 1233 Charters of Treviso described a "strada nova que vadit ad pontem, que est ab ista parte Plavis" (Liberali, 1955, II, p. 157) and the ones of 1314 as "via que appellatur Calis Alta" (Liberali, 1955, I, p. 595).

The *Alzaia* (literally, "tow path"), a term used from the ancient times up to now, comes from the Greek verb ἕλκω (to pull) and consequently from Latin helciaria, the rope used to pull the boats upstream. It is also known by the vernacular name *Restera*, that probably comes from the pre-Roman word aregasta/aregastaria, which was the embankment erected to consolidate the river bank. It was – and still is – the pedestrian way beside the river Sile, that goes from Treviso to the Adriatic Sea. Here, the boats that needed to reach the city harbour had to be dragged upstream by horses, oxen or even men (indeed, Sile's headwaters are located in the western countryside of Treviso and its mouth is near Venice). Furthermore, resta is the vernacular term for the rope used to connect the boat to the animal. Then, oronyms must be used in order to talk about some places elevated from the ground level and due to men's intervention.

In *Porto* there was a place called *Paradiso* ("Paradise"). There are no documents explaining this microtoponym; its first mention goes back to the c.1680 land valuations that say a noble mansion was built there. Probably, it defined a land elevated, reclaimed and protected from swamps and floods, good enough for agriculture and a proper garden.

The Callalta's section right in front of it was defined as *Coltello* ("knife"): it recalled the shape of a blade, because it was elevated even more than the already high level of the street, perhaps to separate *Paradiso* from the land in front of it, known as *Inferno* ("hell"). In this case too, there was no religious reason to call a place by this name: indeed, this microtoponym – now gone – was due to the fact that there was a swamp and it was impossible to reclaim these lands for agriculture. In fact, this name could have its roots in the Latin word inferius, referring to an insula (as in Insul Superius/Inferius, VR). This type of island was a lake or riverine one; while inferius might has been attributed to a land of lower elevation that could most likely have been a swamp. If so, the shift from inferius into inferno could have been easy, considering that a hypothetical toponym underlining a morphological aspect changed into a false sacred toponym. It must be said that these three names, as microtoponyms, are not written on the maps but only mentioned in the documents provided by the citizens and sometimes reported in the records.

A common toponym in this countryside was Chiesura/Cesura/Chiusura, meaning "enclosure". It is considered as an oronym because it was a fence built on the ground. It designated the typical Venetian agricultural system: a field with a specific crop enclosed by bushes, rows of vines and trees. Then, phytotoponyms were common for the presence of woods. In this map (Figs. 5a, 5b) they are represented by three villages: *Selvana* (from Latin sĭlva, "woods"), *Sambugole* (from sambucus, "elderberry"), *Spineda* (from spīna, meaning "roveto", 'thorn bush'). They are located in the north-eastern countryside right outside the city walls. They were sparsely inhabited because of the woods from which people freely took the wood needed for fire, agriculture and so on. Nowadays, the suburban sprawl has changed their appearance and the toponyms of Sambugole and Spineda have turned into a hagio-phytotoponym, *Santa Maria del Rovere*, a village dedicated to the Virgin Mary, where "rovere" (from robur) means "oak" Then there are ecotoponyms, as Tolpada: the tolpi were the wooden stakes that blocked the vessels navigating the river Sile, going through the customs at the entrance of the city, where then there was the main harbour.

Zootoponyms as Buel del lovo ("lovo" is a vernacular form for "lupo", from Latin lupus and Greek lykos, "wolf"), literally means "wolf's guts". It was – and still is – a road twisted and full of curves on Porto's map; furthermore, this toponym was common in this countryside because of the presence of wolves.

Fig. 5a - A. Calligaris, Selvana Sambugole Spineda, 1681, State Archives of Treviso, Ancient Maps collection, envelope 28/a, n. 313; detail. 950x840 millimetres. Scale: Treviso's modern perches, 100 = 59 millimetres.

Fig. 5b - A. Calligaris, Selvana Sambugole Spineda, 1681, State Archives of Treviso, Ancient Maps collection, envelope 28/a, n. 313, detail.

Discussion

These examples go from the Modern Age to the current day. They show that, despite the passing of time and the territorial changes due to exploitation, it is possible to preserve the memory and recover the identity of a place as it was, thanks to the contribution of a name that remained, or a map that recalls it. Building a diachronic stratigraphy would definitely be a good plan, that could also be applied when it comes to talking about urbanisation, giving the opportunity to pay more careful attention to the environmental dynamics.

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For giving me the opportunity to participate in this highly-regarded conference, I would like to express my sincere gratitude to Professor Aandrea Cantile and to the other participants and experts for the insightful interventions and discussions as well.

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The transformations of the place names of Naples in historical and contemporary cartography between landscape changes and territorial identity

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Abstract

Naples, a city with a powerful identity, has become the emblem of the whole of Italy: our nation, through many aspects of its culture (from music, to art, to gastronomy), is internationally known thanks to the symbols of the Neapolitan cultural heritage. The place names of the city, rich in stratifications and multiple influences (coming from both the East and the West), manifest this complex territorial identity, enhancing its geomorphological characteristics (with the mythical volcanic nature) and landscape peculiarities, object of a long process of "territorialization". This latter underwent an epoch-making change at the end of the 19th century and then went through a phase of profound transformation following the Second World War. The place names are evidence: their disappearance or persistence, in fact, highlighted through a diachronic comparison between historical and modern cartography (supported by an appropriate bibliography), accurately reflects the landscape changes of the Neapolitan urban area in the last two centuries.

Keywords: *place names, cartography, territorialization, territorial identity, landscape, historical geography.*

The Neapolitan place names as a source for comparative research about the changes of the Neapolitan landscapes

Naples is the most important city of Southern Italy, for population size, historical traditions and relevance of its economic activities. Celebrated since classical antiquity for its climate and variety of panoramas, it has became famous from the archaeological heritage of the surroundings, museographic collections and outstanding monuments connected to the wealth of its history. It is a city with a powerful identity and has become the emblem of the whole of Italy: our Nation, through many aspects of its culture (from music, to art, to gastronomy), is internationally known thanks to the symbols of the Neapolitan cultural heritage.

Elements of Neapolitan cultural heritage include the landscapes, both tangible and intangible, of which place names are essential parts: they are, in fact, geographical and historical indicators, becoming, in the last decades, objects of specific geographic studies. The place names, integrated with the results from other sources (starting from a relationship between their syntactic and semantic decoding, their spatial context, their interrelation at small, medium or large scale

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representation), can certainly give some valuable indicators for territorial research (Cassi, 1991; Deli, 1992; Cassi-Marcaccini, 1998; Aversano, 2007, 2016; Aversano-Cassi, 2008). In the case of Naples (like many others areas of Italy), place names are also the faithful witnesses of the transformations undergone in the urban centres during the centuries, especially because of the reconstruction after the Second World War. Place names can also be indicators of the community's identity, and of its transformations and evolutions over time.

So, in this contribution, starting from the comparative analysis of the place names of Naples (extracts from some ancient and modern topographic maps of the city) and from their possible meanings, we will try to understand what elements have prevailed in the construction of the secular territorial identity of this important city. Despite the rebuilding of the last 70 years, which has partly destroyed the urban landscapes of the past, this identity lives on through the place names that, even when they disappear, remain in the memory and in the common use of the population (also thanks to cultural heritage, another possible source for this kind of research). To achieve our goals, we will, therefore, start with a quick description of the physical and historical geography of Naples. Relating old and recent maps, we will then make a comparison between the place names that fall within the perimeter of the municipality. We can thus obtain two results: (1) the measure of the prevalent characteristics of the city's territorial identity, verifying how many place names are related to physical geography and how many to historical geography; (2) the verification of which place names have survived the territorial transformations of the last 70 years and the importance they have for Naples.

Geographical description of the city of Naples

The city of Naples is located largely in a kind of amphitheatre on an inlet of the Tyrrhenian coast, in the innermost part of the homonymous gulf. The territory has a volcanic morphology, with higher, mountainous and hilly areas. Generally, however, it is mainly of low altitude, except for the presence of some promontories and capes, which descend almost to the sea (Ruocco, 1976; Aversano, 2007 and 2010).

In the cultural identity of the city and in the collective imagination of its visitors, Vesuvius is a very important geographical and cultural element, but, really, it is very dangerous: it is an active volcano but in a quiescent phase. Its next eruption will almost certainly be explosive, in an area with a very high concentration of inhabitants. The *Phlegraean Fields* are still more dangerous, because of the underground presence (at a depth of about 5 km) of a great sleeping volcano. Here, in the last 3,000 years no major eruptions have occurred, with the exception of a lava flow in *Ischia* (1301-1302) and the formation of *Monte Nuovo* in 1538 (Aversano, 2010, p. 253). Since then, the principal damaging effects were the bradyseism and related earthquakes (last in the early 970s and 980s). The next eruption in this area, probably, could be as potent as that of a nuclear bomb.

Without considering the presence of prehistoric civilizations, the history of

Naples begins with the Greeks, who founded *Parthenope* (8th century BC) and then *Neapolis* (6th century B.C.): the first city on *Echia Mount* (today *Pizzo Falcone*) and the second in the area of the current historical centre, characterized by the centuriatio (grid) of the Romans. In 326 B.C., in fact, Naples opened its doors to the Romans, becoming their partner. After a few years, however, it began to decline, while Puteoli (Pozzuoli) as a port of Rome increased in importance. In 90 B.C. Naples was reduced to a simple town hall: having supported Mario (82 B.C.), it suffered the repression of Silla which caused further weakening of the most active classes, the loss of its commercial role, the accentuation of the appearance as place of "otium" (leisure) for the aristocracy, attracted by the mildness of the climate, by the landscape and by its location near to the amphitheatre on the sea. Under the Emperor Claudius, Naples became a simple colony. After the fall of the Roman Empire, Naples became an independent duchy with the Byzantines, but after a long resistance, in 1137, was conquered by the Normans. With the arrival of the Swabians (1194), it became the site of one of the oldest universities in Europe, while, with the Angevins (1266-1441), it assumed the role of capital of the Kingdom, which was called indeed "of Naples".

During the following Aragonese age (1443-1503), Naples experienced its best period, with a doubled population (about 100,000 inhabitants) due to the arrival in the city of provincial inhabitants, Italian and foreign merchants, gentlemen, warriors, officials, writers, Byzantine exiles, and Jews. Then followed several governments: from the Spanish (1501), to the Austrian (1707-1724) and finally the Bourbon (1734-1861), with a French interval of ten years (1806-1815), before returning to the Bourbons until the Unification of Italy (1861). After this, the urban landscape of Naples began its transformations: it underwent an epoch-making change at the end of the 19th century (1884: the "gutting" of Naples) and then went through a phase of profound transformation after the Second World War.

The changes of Neapolitan place names through a comparison of old and recent maps

To begin the comparison between place names, we have delimited the study area using the Geographical Atlas of the Kingdom of Naples (Sheet no. 14, scale 1:114,000). The Atlas (with engravings by Giuseppe Guerra) was published by the famous cartographer Giovanni Antonio Rizzi Zannoni (1736-1814) during more than 20 years of work in Naples, first as a Geographer of the King and then as Director of the Topographical Office in Naples in 1781. The maps have a trigonometric survey and represent a new level of accuracy for Italian mapping (the Cassini projection is used).

Regarding the area of our analysis, we can see the city of Naples, delimited by its administrative boundaries. A topographical map (scale 1:100,000, edited by Italian Geographic Military Institute) was overlaid on the Rizzi Zannoni map to draw the perimeter of the municipality of Naples. Through the overlay, we can draw the actual perimeter of Naples on the Rizzi Zannoni map, then we can list all the place names that fall in this area and examine some of them that are particularly important (Fig. 1 A-B).

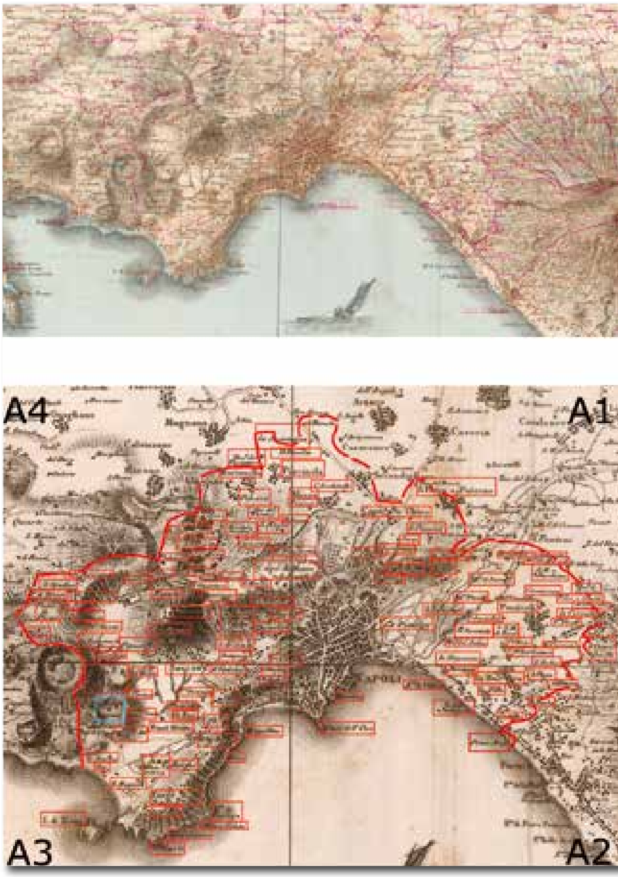

Fig. 1 A-B - G.A. Rizzi Zannoni, Atlante Geografico del Regno di Napoli, sheet n. 14, 1794, scale 1:114,000. The perimeter of the analyzed area was marked on the map georeferencing it on the IGMI's topographical map (sheet n.183-184) "Ischia-Napoli" (A) and (B) highlighted the place names for the analysis (red by marks by S.S).

For this we have divided the map into four parts (like the face of a clock), considering only the area of Naples. In this way, in the Rizzi Zannoni map, we have found 128 place names, 61 of which are still in existence, either in their original form or in a modified form (Table 1). Some no longer in use return, for example, in the titles of stores and restaurants, which often use lost ancient place names, no longer existing on the official maps, but that still survive in the oral memory of the population. In support of the research, we also used Google Map, which shows not only the names of the streets of a city, but also those of the commercial places.

Now we can examine some of these surviving names, considering some place names linked to the physical geography and then others linked to the historical geography. We start from the place name *Arenella*, meaning sand (Pellegrini, 1994,

p. 169): it is derived, probably, from the word "arena" [sand] that welcomed the thundering torrents from the overhanging Camaldolese hill. The name is shared with other areas, such as the *Arenaccia* or the *Arena alla Sanità* (Perillo, 2016, p. 242). Another important feature of the Neapolitan territory is shown by the place name *Bagnoli* (Fig. 2B), coming from the Latin Balneolum, once a place of springs and thermal baths. Romans used these mineral and thermo-mineral waters: some springs, as well as *Bagnoli*, emerge along the coast and the shores of *Lake Averno* and *Fusaro*, *Lucrino*, *Licola* and *Varcaturo*. A steel industry (Ilva then Italsider), at the end of the 19th century, was built here. In the past, in fact, there was still no ecological and landscape sensitivity and the choice met the criteria of industrial development, considered a priority for the economic growth of Southern Italy. After the end of the Ilva-Italsider, today in *Bagnoli* there is a serious problem of environmental pollution (because of the presence of asbestos). Several projects were studied to offer the prerequisite for the redevelopment of the area: Città della Scienza [Science City] is the most concrete example of this plan, but today it is in crisis, because of a serious arson of five years ago. In the place names linked to the baths and thermal waters we can find also *Pisciatoro* – probably corresponding to *Pisciarelli* (Nobile, 1863, p. 23; Chiappinelli, 1999, p. 61) – and *Piscinola*, denoting maybe a cistern for collecting rainwater from the Roman era: it was also an ancient little village, existing since the times of the sacking of Naples by Belisario (536), General of the Emperor Justinian (Alfano, 1823, p. 20).

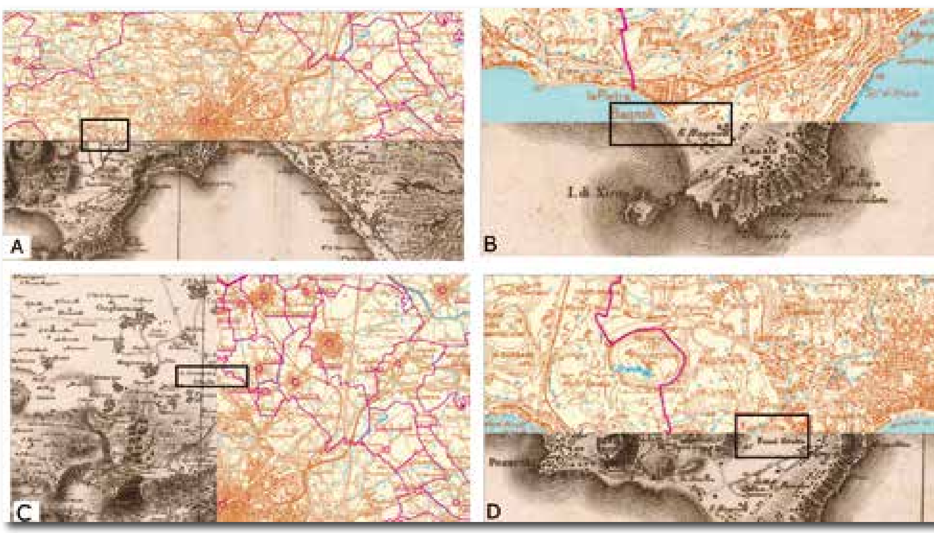

Fig. 2 A-B-C-D - Overlay between the Rizzi Zannoni Map and the IGMI map (sheet 183-184), georeferenced through ArcGis (edited by S.S.).

Physical and historical geography come together in the name *Barra* [barrier]. In fact, on one side, it could have an Angevin origin and indicate the "Cozi barrier" (Giustiniani (1802, p. 206), from the surname of a family; on other side, however, the name, in physical geography, denotes an accumulation of sand at the mouth of a river or at the entrance of bays (known as a "bay-mouth bar"). In fact, near

Barra (in a north-west direction) we found *via Argine* [riverbank street]; *Barra*, moreover, is in the *Sebeto* valley: *Sebeto* is the name of the river that flows in the valley, so called since Roman times. It is difficult to reconstruct its original course, but it arose certainly from the sources of *Bolla* (Volla) that fed the pipelines and wells of the city (Monticelli, 1840, p. 10).

Regarding the geographical-physical elements of the Neapolitan territory, some of these emerge directly from explicit place names. It is the case of Belvedere (indicating a panoramic point) and *Capo di Monte*, a small hill, not very high (147 m) but very steep, where there is a well-known Museum, in the ancient halls of the Royal Palace of the Bourbons; *Coruoglio* (denoting a crown, probably because of the shape of the coast) and *Pianura* (at the foot of the *Camaldoli* hill), formerly called *Planuria* and *Planura* (Alfano, 1823, p. 19), which is derived from the configuration of the flat land (De Vito, 2018, p. 192); *Pietra Arsa* [burned stone], today the location of the Railway Museum, initially called *Pietra Bianca* [white stone] (Alfano, 1823, p. 19), indicating a place (near *S. Giovanni a Teducci*o) where the lava of Vesuvius arrived in 1631, and *Pietra Salata*, probably denoting a salt deposit on the rocks.

Some names, related to the natural features, recall also popular sayings: such is the case of *Cercola*, that in Neapolitan dialect means "oak". It is present in many dialectal proverbs, and even used in fun, as for example, when referring to particularly robust women, called, therefore, "oaks" (Villari, 1893, p. 104).

Another interesting name is *Capo di Chino*, which, according to Giustiniani (1802, p. 205), was previously *Capo di Chio*. In fact, the name *Capodichino*, dating back to the Middle Ages, stems from the Latin caput de clivo, which indicated the end of a steep road (clivius), starting from *Porta Capuana*. A document of 16/10/1342 mentions the Queen Sancia, wife of Robert of Anjou, who donates to the Monastery of the Body of Christ, today *Santa Chiara*, a piece of land located in a place called *Capo de Chio*. Other information dates back to the period of Spanish domination in which the Viceroy Don Pedro Giron made some changes to the beautiful road of *Capodichino* (Giusto, 2007, p. 51). The volcanic nature of Neapolitan ground and underground, characterized by tuff caves, emerges from the name *Fuori Grotta* (Fig. 2D), related to the grotto opened in the Augustan age, now in disuse, but still visible from the Park of Virgilio. Next to this cave today there is a more modern one, as well as another below (the one that starts from *Mergellina*). Formerly in this place was the village of *Casapagana*, later called *Fuori Cripta* (outside the grotto), from which comes *Fuorigrotta*; moreover, this grotto is crossed by another way, that linked *Pozzuoli* and *Neapolis* (De Vito, 2018, p. 192). Analogously *Gaiola* (The), now *isola* (isle) *la Gaiola*, is derived from caveola, a small cave or cavities dug along the shore by the sea waves (the same origin, in Neapolitan dialect, has caiola, that means "cage for birds"). Another isle of volcanic origin is Nisida (from niseidos, little isle).

The volcanic nature of the ground appears also in *Soccavo* (Fig. 2A), meaning "under the quarry" (from *Subcava*: Alfano, p. 29), related to the *Piperno* quarries that were under the *Camaldoli* hill. From this material cames the name of the famous *Croce di Piperno* [Piperno Cross] (1613), today a symbol of the ancient *Soccavo*. From the waters of the *Camaldoli* comes the "arena [a sandy land] of Soccavo" (or S. Antonio: De Vito, 2018, p. 192). A well-known Neapolitan place name is *Marechiaro* (clear sea), near Posillipo. On the map of Rizzi Zannoni it is called *Marepiano*: the present name is not derived from the clarity of the water, as many believe, but rather from its stillness. In some documents dating back to the Swabian period we can read, in fact, mare planum translated into the Neapolitan language mare chianu, from which comes today's *Marechiaro* (Della Ragione, online). In *Mergellina*, instead, we can find the concept of "transparent sea" (according to De Falco, online, it should derive from "mare jalinum").

Very interesting also is the name *Le Paludi* (the swamps). It indicates a condition of territorial degradation that has characterized the eastern part of Naples since the Middle Ages: just here, there is a wide and flat plain, today occupied by a continuous urban area, including industrial plants. After the fall of the Roman Empire, in fact, the eastern coast, as other areas exposed to attacks by the sea, became depopulated, becoming swampy. In the past centuries, in this area afflicted by miasmas and stench, lived some farmers, who accustomed to unhealthy air, cultivated different species of herbs in the marshes. During the first part of the 19th century, the area was progressively drained and exploited further from an agricultural point of view (De Renzi, 1845, pp. 257-261).

The place name *Scampia* is equally remarkable (Fig. 2C). Today it recalls negative facts about the Neapolitan hinterland (as space of drug trafficking), but at the beginning of the 19th century the place name indicated an ordered expanse of small villages and cultivated fields, evoked by the same meaning of "place flat, open and little cultivated", "outing", "moorland" (Siniscalchi, 2013, p. 116)

Regarding the historical-geographical features of the Neapolitan territory, many place names of the Rizzi Zannoni map recall them, above all relative to an ancient economy and associated landscapes, today replaced by urbanization and industrialization processes. It is the case of *Abbeveraturo* (l') [a watering place], recalling the time when the area was crossed by cattle. More ancient is the place name *Agnano*, of Roman origin (from the name of the Annia family), denoting a town famous for its thermal baths, such as the nearby *Pisciarelli*. *Antignano* has the same origin (from the name Antonianum or gens Antiniana), like Miano, a predial place name of Roman age. C.[astel]o *S. Elmo* [S. Elmo Castle], instead, derives from *S. Erasmo* castel, existing in the Angevin age, and arising in turn from a chapel here existing in honour of the Saint (Mauro, 1998, p. 266). A religious origin are also attributed to *Camaldoli*, which comes from the name of an ancient monastic order; *Nazaret*, related to Christianity; *Paradiso* (Paradise, that, however, could denote also the beautiful landscape); and *S. Giovanni a Teduccio*, a district that takes its name from a church dedicated to St. John the Baptist, and was an ancient holiday resort. The designation "a Teduccio" is perhaps derived from the name of the Princess Theodosia and from her villa in Pazzigno, not far away, rich in mills (De Vito, 2018, p. 128).

If *Castelluccia* (taverna della [Tavern of the little castel]), instead, recalls, with evidence, a place to stop, then very curious and interesting is *Conocchia* (la): it is a very ancient area, at the foot of *Capodimonte*, bordering the *Scudillo*, *S. Gennaro* outside the walls and *Materdei*. The etymology of the name, according to some researchers, could be derived from the Latin cuniculus ([caverns] *Pellegrini*, 1994, p. 218), but could, more simply, also refer to the shape of the spindle for wool (the conocchia, in Neapolitan dialect), a shape that resembles this area (De Vito, 2018, p. 144). To the artisan of gloves is dedicated *Guantari* (li), while "*M.[uli]no del Salice*" (mill of the willow) recalls the wheat mill and *Pazzigno*, probably, a pezza (that is a piece of cultivable soil: *Pellegrini*, 1994, p. 346).

The place name *Pisani* remembers the presence of stranger merchants in Naples during the Middle Ages (Colletta, 2006, p. 114), while *Poggio Reale* is related to the royal palace erected by Alfonso, Duke of Calabria, after the liberation of Otranto from the Turks in 1481 (Milanesi, 1878, p. 484). *Ponticelli*, in turn, was born, presumably, from the name of one or more small bridges (Chiappinelli, 1999, p. 61) over the *Sebeto* (De Vito, 2018, p. 128), while Spadari (The) recalls the ancient work of the sword builders and *Stadera* (la) the most important public weighing place for duties (Perillo, 2016, p. 71). *Villena* (Fortino di) recalls a fortification built starting from 1703, on pre-existing structures, by the Viceroy Juan Manuel Fernández Pacheco, Duke of Escalona and Marquis of Villena, from which it took its name (Ministero per i beni culturali e ambientali, 1987, p. 428). Finally, *Vomero* is a name referring to an iron tool in the shape of a spear (which the farmers call bombere), used in agriculture to till the soil (Tommaseo, 1872, p. 173).

Fig. 3 - The marked place names on the George Arnald Map (Napoli, published under the superintendance of the Society for the Diffusion of Useful Knowledge. (Drawn by) W.B. Clarke, arch: dir: T. Bradley sc. Published by Baldwin & Cradock, March 1835. (London: Chapman & Hall, 1844). Red marks by S.S.

In a second step, we have examined the Naples map of George Arnald (1835), at a detailed scale (1:17,400). The map (Fig. 3) offers the possibility of more accurate comparisons that we will do in the future (i.e. we would be able to use the streets of the municipality of Naples, in addition to a detailed map of the city). Now, for a rapid analysis of the more charateristic place names of this map, after its georeferencing, we have again divided the depicted area into four parts and, through an overlay, we have compared some of the place names of the historic map with those present in the Google map.

In the Arnold map, considering only the area of Naples, we have found 165 place names (Table 2), many of which still exist. In general – anglesisms and errors of copying apart – they offer references to Naples of the past time, from Greek, Roman, Sveva, Angevin, Aragonese, Spanish, Bourbon, and Murattiana ages. For the Greeks, for Naples there are place names, such as the name of the city that changed from *Partenope* to *Neapolis*. With regard to the Latin influence, its traces are immediately visible in some emblematic Neapolitan place names (already seen in the previous map, such as *Mergellina*, *Marechiaro*, *Gaiola*, *Antignano* and *Chiaia*, the riparian beach [plaga]), but we read also other names, related to the Spanish (as Conte Olivares, Nardones, Toledo) or linked to the Bourbons. Of these place names, today, little or nothing remains, because of the erasing of their memory from the the city, after the Unification of Italy, and their exchange with the names of the Savoys or of other characters in the history of Italy, such as Mazzini or Garibaldi.

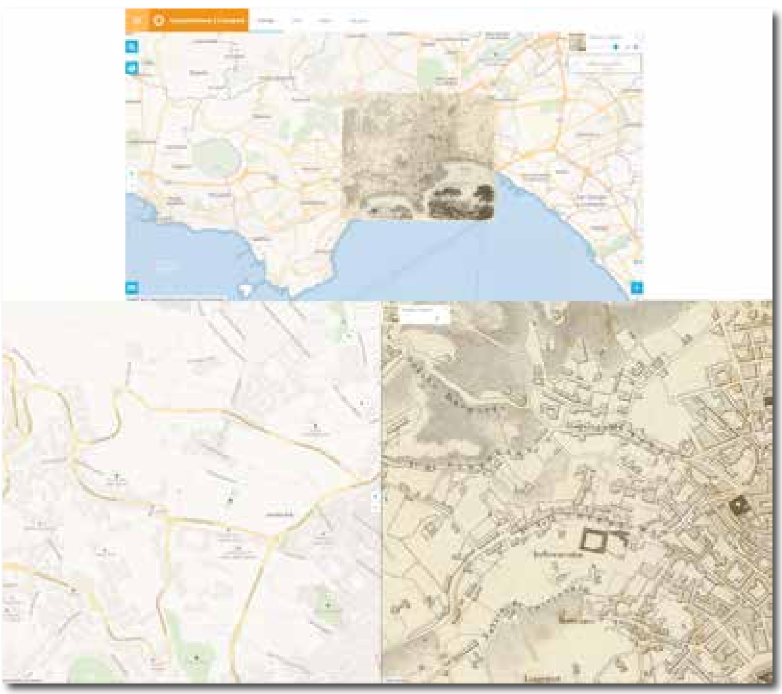

Fig. 4 A-B - Overlay of Arnald's on Google Map, through the georeferencing of "David Rumsey Map Collection". The collage has, in evidence, the areas of the old marshes of Naples and of the "Infrascata".

Concerning the change of landscape, very precious is *Infrascata*, the ancient name of *Arenella* (Fig. 4B). The term remains in the dialect (*'Nfrascata*) to remember the times before urbanization, in which there were the "frasche" [branches], the leaves of the trees that brought shade and refreshment. Today the Infrascata is called via Salvator Rosa, after the painter, poet and musician, born at the *Arenella*, near Naples, on 21st June 1615 into a family and an environment of painters, and who died in Rome on March 15, 1673.

Conclusions

The place names of Naples, through a diachronic comparison between historical and modern cartography, accurately reflects the landscape changes of the Neapolitan urban area in the last two centuries. Their disappearance or persistence is a clear sign of this.

Their changes, in conclusion, follow two tendences: those persistent are relative to the geographic-physical characteristics of the city, as well as to its multi-millennial history; those lost or modified are indicative of the landscape transformations of the urban structure during the centuries, as well as of the political changes following the Unity of Italy, that has been for Naples the beginning of a new, controversial world.

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Table 1. Place names of the city of Naples, extracted from the Geographical Atlas of the Kingdom of Naples by G.A. Rizzi Zannoni of 1794 (geo-referenced on the I.G.M. sheet n.183-184 "Ischia-Napoli" and compared with the place names of Google Map).

A1 (up, on the right of the map) - A2 (down, on the right of the map) - A3 (down, on the left of the map) - A4 (up, on the left of the map)											
Place names still existing (20)			**Existing but modified place names (41)**			**Place names no longer existent (67)**					
1	Arenella	A4	**1**	Abbeveraturo (l'), (now Via [street] Abbeveratoio)	A1	**1**	Amendole (l')	A1	**42**	Portone (Taverna del)	A4
2	Bagnoli (li)	A2	**2**	Agnano (Lago di), (now ippodromo di [racecourse of] Agnano)	A3	**2**	Angioletto (L')	A4	**43**	Poveri (T.[orre] dei)	A3
3	Barra (la)	A2	**3**	Antignano (now via Antignano)	A4	**3**	Architello (l')	A4	**44**	Real Boschetto	A4
4	Capo di Monte	A4	**4**	Belvedere, (now via Belvedere)	A3	**4**	Architello (l')	A1	**45**	Romana (la)	A4
5	Caravita (taverna di)	A1	**5**	Calori (li), (now Vico [little street] Calori di Sopra)	A4	**5**	Bolini (li)	A1	**46**	Rose (le)	A3
6	C.º S. Elmo	A4	**6**	Capo di Chino, (now Capodichino)	A1	**6**	Camerelle	A4	**47**	S. Lorenzo	A4
7	Camaldoli	A4	**7**	Castelluccia (taverna della), (now exists via Castelluccio)	A1	**7**	Campo Santo	A1	**48**	S. M. de Terzi	A1
8	Castel dell'Ovo	A2	**8**	Cercola (la), (now Cercola)	A1	**8**	Caraccioli	A4	**49**	S. M. del Pianto	A1
9	Fuori Grotta	A3	**9**	Conocchia (la)[i]	A4	**9**	Carrato (lo)	A1	**50**	S. Rocco	A4
10	Mergellina	A3	**10**	Coruoglio (now Coroglio)	A3	**10**	Case nuove (le)	A4	**51**	S. Severino (Monte)	A1
11	Miano	A1	**11**	Decina[ii]	A4	**11**	Catini (li)	A1	**52**	Sorrentino	A1
12	Pietra Arsa	A2	**12**	Dueporte (now exists Cupa Angelo Raffaele alle Dueporte)	A4	**12**	Cenatempo	A1	**53**	Starza (la)	A3
13	Piscinola	A4	**13**	Fri…? (now Scoglio di Frisio)	A3	**13**	Cimino (il)	A3	**54**	Stucchi (li) [pozzo]	A1
14	Poggio Reale	A1	**14**	Gaiola (lu), (now isola [isle] la Gaiola)	A3	**14**	Cosiello	A2	**55**	Tarturone	A4
15	Ponticelli	A1	**15**	Guantari (li), (now via Guantai)	A4	**15**	D.[onna] Romita	A1	**56**	Tav. del Bravo	A1
16	S. Gio. a Teduccio	A2	**16**	M.ⁿᵒ del Salice, (now via Molino del Salice)	A1	**16**	Darsena (?)	A2	**57**	Tav. [erna] della Castelluccia	A1
17	San Pietro a Patierno	A1	**17**	Marepiano (now Marechiaro)	A1	**17**	Donzelle (Monte delle)	A4	**58**	Tav.[erna]	A3
18	Scampia (la)	A1	**18**	Nazaret (now Nazareth)	A4	**18**	Monte Oliveto	A4	**59**	Tav.[erna] del Sambuco	A4
19	Soccavo	A3	**19**	Nisita (Isola di), (now Nisida)	A4	**19**	Grotta del Cane	A3	**60**	Tavernola (la)	A1
20	Vomero (il)	A3	**20**	Orsolona (now Orsolone)	A4	**20**	Grotta di Po (?)	A3	**61**	Tavernola (la)	A4
			21	PALUDI (LE)[iii]	A4	**21**	Ligarella (la)	A1	**62**	Torre dei Franchi	A4
			22	Paradiso, (now Salita Paradiso and Vico Paradiso)	A1	**22**	M.ⁿᵒ Pirelli	A1	**63**	Torre Gervasio	A3
			23	Pascone (Il), (now via del Pascone)	A1	**23**	M.ⁿᵒ S. Severino	A1	**64**	Vanciani	A4
			24	Paterno (now via Paternum)	A1	**24**	Mol.º dei Mascoli	A1	**65**	Villa (la)	A2
			25	Pazzigno (now via Pazzigno)	A1	**25**	Marianello	A4	**66**	Villa Patrizi	A3
			26	Pietra Salata, (now Scoglio [rock] Pietra Salata)	A2	**26**	Marini (li)	A4	**67**	Volla (Acqua della)	A1
			27	Pisani (li), (now via Pisani)	A4	**27**	Matanello	A3			
			28	Pisciatoro (Tav.ª[erna] del)[iv]	A4	**28**	Oliva (l')	A1			
			29	Rosso (Ponte)[v]	A4	**29**	Pace, e Sanità	A1			
			30	S. Croce (now Piazza S. Croce)	A1	**30**	Palermo	A4			
			31	S. Jorio (now S. Giorgio a Cremano)	A4	**31**	Paziente	A1			
			32	S. M. di Fistignano, (now via Vicinale Festignano)	A2	**32**	Petraro (il)	A3			
			33	Santa Maria a Purchiano[vi]	A1	**33**	Pianura	A4			
			34	San Nicola (Pigna di), (now via Pigna)	A1	**34**	Pignatello	A4			
			35	Santo Strato (Casale di), (now Via S. Strato)	A3	**35**	Pigne (le)	A2			
			36	Scassone (lo), (now via Scassone)	A1	**36**	Pirelli (valle)	A1			
			37	Scutillo (lo), (now Salita [rise] Scudillo)	A1	**37**	Pisani (Piano de')	A4			
			38	Spadari (li), (now via Vicinale Spadari)	A4	**38**	Pittore (il)	A2			
			39	Stadera (la), (now via della Stadera)	A1	**39**	Poggiuli (li)	A1			
			40	Terracina (now via Terracina)	A1	**40**	Polveca	A4			
			41	Villena (Fortino di), (now Vigliena)	A2	**41**	Ponte di Po[sylipo?]	A3			

Table 2. Place names from the Naples map of George Arnald, 1835, published under the superintendance of the Society for the Diffusion of Useful Knowledge (Drawn by) W.B. Clarke, arch: dir: T. Bradley sc., Published by Baldwin & Cradock, March 1835 (London: Chapman & Hall, 1844) , Chapman and Hall, London. Scale: 1:17.400

A1 (up, on the right of the map)	A2 (down, on the right of the map	A3 (down, on the left of the map)	A4 (up, on the left of the map)
1. Acquaro	1. Acqua Solforea	1. Villa reale [public garden]	1. Ancient Sepulcre
2. Albergo dei Poveri (in English on the map)	2. Arsenal	2. Boschetto	2. Antignano
3. Arenaccia	3. Borgo di Loreto	3. Mergellina	3. Architiello (l')
4. Borgo di Loreto	4. Castello del Carmine	4. St. di Piedigrotta	4. Bottone
5. Borgo S. Antonio	5. Castello dell'Ovo	5. Virgilio Tomb	5. Concezione (la)
6. Campo Santo	6. Castello Nuovo	6. Vico Freddo	6. Conocchia
7. Capodimonte	7. Chiaja	7. Largo della Vittoria	7. Dueporte
8. Castello del Carmine	8. Conte Olivares	8. Grotto of Pozzuoli	8. Hill of Dueporte
9. Giardino Botanico (in inglese)	9. Deputazione della Salute	9. Hill of Posillipo	9. Hill of Scutillo
10. Il Guaslo	10. Great Harbour	10. Villa Patrizi	10. Hospital
11. il Pennivio (il Pendino?)	11. Great Mole	11. Hill of Chiaja	11. Celso (Il)
12. il Trivice	12. Largo Ponte	12. Villa Ricciardi	12. Infrascata
13. Largo dei Miracoli	13. Lighthouse	13. La Torre sopra Soccavo	13. Canciani (Li)
14. Largo del Ponte	14. Little Mole	14. Valley of Soccavo	14. Logerot
15. Largo della Duchesca	15. Marinella	15. Road to Succavo	15. Ma Certosini
16. Largo Fuori Porta	16. P. dell'Immaculatella	16. Cas.o di S.M. in Portico	16. Ma della Stella
17. Capuana	17. Pia. del Cast. Nuovo	17. l'Eieme (?)	17. Ma di S. Severo
18. LE PALUDI	18. Ponte della Maddalena	18. S. S. Teresa	18. Ma Morna
19. Magazzino Reale (in inglese)	19. S.t Gennaro Point	19. Largo del Vasto	19. Ma Romes
20. Marinella	20. Small Harbour	20. Quartiere	20. Ma Tuorno
21. Mercatello	21. St. del Molo	21. S. S. Catarino	21. Ma Villa
22. Mercator (piazza Mercato)	22. St. di M.t Oliveto	22. Military College	22. Ma Zua
23. Osservatorio di Capodimonte (in English)	23. St. S. Carlo	23. Quartiere	23. Ma. Pastore
24. Hill of MINADOI (?)	24. St.a Medina	24. Specuta	24. Ma[sseria] Talamo
25. P. della Maddalena	25. St.a S. Giacomo	25. St. della Solitoria	25. Mas.ª Scavino
26. P.o del Carmine	26. Vico Giuseppe	26. Piazza del Pal. Reale	26. P. Vecchio
27. P.o di Costantinopoli	27. Wet Dock	27. St. di Chiaja	27. S. ta Caterina
28. P.za dei Tribunali		28. St. Nardones	28. Salita di Scutillo
29. P.zza delle Pigne		29. Cas. del Duca della Regina	29. St. dell'Infrascata
30. Po di Caputo		30. S. M. della Libera	30. St. della Sanità
31. Po. Nolana		31. S. Tianc.o di Paolo	31. St. delle Soloto
32. Polveriera Vecchia		32. St. di Vomero	32. St. di Confalone
33. Por:[ta] di S. Gennaro		33. Mongibello	33. St. Nuova di Capodimonte
34. Porta Capuana		34. IL Vomero	34. St. P. Medina
35. River Sebeto		35. Villa Belvedere	35. St. Pigna Secca
36. S. Egeziaca		36. Villa Floridiana	36. St. S. Potito
37. S. Erasmo		37. Castel S. Elmo	37. Scutillo (lo)
38. S. M. delle Grazie		38. Hill of S. Martino	
39. S. Ma del Pianto		39. Vico Conte di Mola	
40. S. Trinita		40. St. S. Mattea	
41. S.M. delle Grazie		41. Strada Toledo	
42. San Giovanello		42. S. Magno Cavollo	
43. St. dell'Orticello			
44. St. di M.te Oliveto			

45. St. di S. M. di Costantinopoli			
46. St. Foria			
47. St. fori Porta Nolana			
48. St. Nuova			
49. St. S. Carlo all'Arena			
50. St. S. Carlo all'Arena St. Foria			
51. St. S. Giacomo			
52. St.a Carbonara			
53. St.a Foria			
54. St.a Medina			
55. Str. Regia di Portici			
56. Strada del Campo			
57. Strada Nuova di Poggio Reale			
58. Strada Vecchia			
59. Vico Giuseppe			

[i] Now exists the Convitto Pontano alla Conocchia.
[ii] It survives as name of a villa and of a pizzeria.
[iii] It survives as Church of S. Anna alle paludi and as Strettola [little street] S. Anna alle Paludi.
[iv] It survives as via Pisciarelli.
[v] It survives as via (street) Taverna [Tavern] Rossa].
[vi] It survives as via (street) Vicinale Porchiano.

The precise toponymy of descriptive cadastre (before the 18th century)

Furio Ciciliot*

Abstract

The practical value of toponyms decreases when the territory detection systems acquire technical tools for localization that can be used as easily as maps and, today, GPS surveys.

Before the capillary diffusion of the figurative cadastre - indicatively in the second half of the 18th century - the toponyms marked in descriptive cadastre were fundamental for locating and defining the uniqueness of properties, together with other complementary guarantees such as the name of the owner, the size, the intended use and the borders.

As a reliable historical source, the value of a toponym decreases progressively from when, for the dissemination of the figurative cadastre, a name of a place no longer serves as a legal guarantee to locate a territorial parcel and becomes an "accessory" with more modest practical implications, as happens today.

Is it a dream to hope that historical toponyms can become a good protected by UNESCO like other intangible items of World Heritage?

Keywords: *historical toponymy, cadastre.*

Introduction

I need to make an essential premise: the intervention that follows is based on historical toponymy, the research on place names – toponyms – in a diachronic perspective.In this field, the toponym has the value of a document to reconstruct the history and the geography of a territory, exactly as if it was a written or archaeological source and with similar difficulties of use.

In toponymy, the historians focus on the past of a territory using place names.

For an accurate reconstruction though, only one toponym is not enough, and other coherent neighbouring ones must confirm it.

The maximum value of an historical toponym is when it is possible to obtain clues about periods or events not covered by other sources.

For the reasons just mentioned, the historical toponymy always verifies the original position of a place name.

A place name taken from elsewhere has little historical value to reconstruct the history or geography of a place. One example: in Castelnuovo don Bosco (Asti) there is the toponym Lombardore, certainly Langobard (terra Langobardorum), but it was imposed only in the 18th century by people coming from another Lombardore (Torino).

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Materials and methods

Having these premises clear, the search for historical toponyms emphasizes written documents, leaving the oral ones in the background.

We proceed with different techniques for collecting verbal data from informants present in the area.

Speech will then highlight those that are the most promising written sources to draw data for historical toponymy.

The practical value of toponyms decreases when land surveying systems acquire technical localization tools that can be used as easily as geographical maps and, today, GPS surveys.

Before the capillary diffusion of the figurative Land Register, indicatively in the second half of the 18th century, even if there are earlier ones, the toponyms marked in descriptive cadastre were fundamental in locating and defining the uniqueness of a cadastral property, along with other complementary guarantees such as the name of the owner, the size, the intended use and the boundaries.

As a reliable historical source, the value of a toponym decreases progressively since, for the spreading of the figurative land registers, a name of a place no longer serves as a precise and actual legal guarantee to locate a territorial parcel and becomes an "accessory", with modest practical implications as it is the case nowadays.

The land registry must define precisely the type, property, location and intended use. The four parameters mentioned are used to calculate the value and therefore the related taxation.

Fragments of Roman age registers have reached us, but the first complete ones related to the Italian area date back to the Middle Ages: here we will mainly dwell on the Piedmontese ones.

The oldest dates to 1253 and it is the register of the Vairo district of Chieri, which will be discussed more extensively later.

Other Piedmontese collections of the 13th - 14th century, not always fully preserved, are those of Moncalieri (1267), Buriasco (1287), Cherasco (1333), Turin (1349), Racconigi (1352), Savigliano (1370) and Mirabello Monferrato (1377).

All the registers mentioned above are called descriptive because they do not refer to maps or drawings to graphically indicate the real estate on the ground.

The first registers with maps attached come much later: in the Piedmontese and Ligurian area I can mention those of Acqui Terme (1671) and a few others from the second half of the 18th century.

In most of the land registry records a structure with opposing pages is used.

On the left page will be described all the indications that will be discussed later; on the right one will appear only the changes in the ownership.

Due to its complexity, a land registry was drafted very rarely, almost always decades after the previous one. In the meanwhile, changes in ownership were frequent, and it was essential to take them into account.

Maria Clotilde Daviso di Charvensod published in 1939 The registry of Chieri (Daviso di Charvensod, 1939), and we own a transcribed copy, with in-depth indices.

In the first descriptive register of the district of Vairo in Chieri (1253) can already be seen the well-defined structure that was followed by the first ancient registers and then almost always repeated by the following ones.

At the top appears the name of the owner, who can be a private person or an institution, laic or religious. The collective goods of confraternities are frequently among them.

The owners are divided, in general, between residents and non-residents and are listed alphabetically by first name.

The first goods reported are the houses, followed by any production facilities (mills, foundries, shops, etc ...) and, finally, the land, the most interesting for the toponymy. In fact, while houses and production facilities are indicated in rather general terms, a piece of land shows important indications.

What are these indications? A generic definition generally land, wood, field, etc ... followed by the intended use and often by the kind of cultivation. Then appears the most interesting term for our purpose: the place where that parcel is located, the toponym.

The boundaries of the parcel are indicated: sometimes the physical ones, as watercourses, roads or ridges, much more often by the names of the neighbours.

The possessors, who daily verified it, guaranteed the boundaries between the properties.

The extent of the property is usually indicated, while the tax is always shown, calculated based on the previously-mentioned variables.

In this cadastral system, the toponym plays a fundamental role: there should be no localization errors or inaccurate naming of the place, also taking into account that the particles were carefully checked.

The most frequent problem though is the transcription from the spoken language, with unfortunate results due to several factors well known to linguists.

Fortunately, these errors are less than expected: in fact, not only various technicians, but also the owners themselves contribute to the drafting of the document. Owners have every interest in using a unique form that can be easily verified in case of judgment.

However, all the land registers show significant limits.

The first is that not all the territory is indicated in the registers: the properties that for some reason - religious, feudal, communal, etc ... - are exempted from taxation are missing. This can include also very extensive and differently located properties, e.g. on mountain ridges, but also in areas of better agricultural yield.

There are also large portions of atoponymic territory, where there is no need to go or is unproductive. Typical examples are the names of the mountains, whose toponymy has grown exponentially in the last decades in which mountaineering and hiking have given a name not only to each mountain, but also to each path to reach it.

Vast areas where no historical toponyms existed are now endowed with references.

With the introduction of the cadastral maps of the second half of the 18th century, the delimitation of the property becomes far easier.

The borders are marked with secure lines on paper and the physical ones, previously so important, now become secondary and are no longer a guarantee of the borders between the various properties.

However, drafting a land registry becomes much more complex.

The work that for the most part could be performed by local technicians now requires the intervention of better-trained professionals, who know geometry and technical drawing; they work very hard at their table far from the described place. In such situation micro-toponyms are less important, sometimes only accessories that do not need to be accurately reported and their correct transcription does not matter.

In the figurative cadastre we notice then a significant decrease in the number of reported toponyms and a notable increase of those that indicate a residential nucleus. This has become an exaggerated trend today: on the maps that we regularly use there are almost only settlements.

The toponymy of the countryside is now almost useless.

Contrary to what happened in the descriptive cadastre, in the figurative cadastre also the marginal areas are represented in the maps with toponyms sometimes "invented" by designer's imagination.

Even in the drafting of non-land-registry maps, few and rarely dated before the 18th century, toponyms have little relevance. We must underline that the maps before the 19th century are the work of technicians for whom the toponymy of a place is of little importance, because they can describe a territory with the tools of drawing, varying colours or marking with different lines and symbols.

In many places – as an example the Liguria and the lower Piedmont – French cartographers imposed the translation of toponyms into their language.

The inaccuracies on the maps are enormous and well known when it comes to transforming established names into other languages.

The same difficulties that we experience in many contemporary publications in which we take back the 19th century toponymic indications of the first who mapped the national territory.

These were cartographers who often came from other Italian regions and who spoke local dialects that were very different from those of the territory to be mapped.

Results

The low value of the historical toponyms has come today to a level of exasperation with the GPS technology.

On Google Maps, many new toponymic references are represented by the ever evolving production or commercial establishments, or by the numbers of the provincial, state and highways roads.

An historical toponym serves almost nothing.

Having lost its practical value, it has become even more exclusively an asset of intangible cultural heritage, and I mean here to take up the term used in the past conference in Florence (2015).

But I add that it is an historical cultural asset. I believe with the previous notes to have illustrated why the Progetto Toponomastica Storica (Pts) uses almost exclusively the toponyms of descriptive cadastre, giving less value or omitting those of cadastre figured or reported on the maps, even if they are sometimes valuable for controversial locations.

Precisely the recognized value of an intangible historical cultural asset allows me to introduce a proposal in this distinguished assembly.

The historical Italian toponymy, for the wealth of sources to draw on and for its evolution that can often be followed from a remote past until today, represents for us an enormous cultural wealth.

Is it a utopia or a dream to think that our historical toponyms can become assets protected by UNESCO, and likewise other intangible assets as a part of World Heritage?

It is an easily protected property of over sixty million speakers, widely spread over the peninsula in more than eight thousand municipalities.

The protection of toponymy does not cost anything.

In this context, a work of recognition of the value of toponymy as a factor of cohesion among the generations and with the territory appears as foundamental. Among the most important ones, we find the names of the wines: the common Nebbiolo vine variety, already known in the 15th century, vinified in purity, in certain places becomes Barbaresco, Roero, Ghemme, etc ...

The economic value of historical toponyms also becomes clear: like a large Gothic church or a medieval castle on the hills, like an historical centre or a landscape, our place names have unique characteristics and are part of the Italian cultural heritage.

To repeat a previous example: the Nebbiolo was an excellent wine, when it took over the name of the place of production became Barolo and the landscape where it is grown is a World Heritage Site.

Why cannot the same thing happen to its very name, by which the whole world knows it?

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Geo-cartographic aspects of the toponymy of Sardinia between conservation and enhancement

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Abstract

The analysis of the toponymy of Sardinia, an island characterized by a minority language, although with different dialectal varieties, involves the realization of a specific Toponymic Atlas with which to verify the cultural overlaps/substitutions that have marked its territory and its history. The Atlas is useful to collect the old toponyms and to understand their disappearance and/or evolution and to catalogue, classify and disseminate the heritage systematically collected in the numerous cartographies, in particular the topographic ones.

The aim of this paper is to observe how Sardinian toponymy still awaits the valorization and preservation policies to bring this language, with all its specificity, to be effectively considered a "living reality" and fully rooted in the island, able to overcome the attacks of globalization. This can be possible by a structured process of collecting, analyzing and systematizing toponyms, as only a modern Toponymic Atlas can do.

Keywords: *Sardinian toponymy, Sardinian Toponymic Atlas, Sardinian language*

Toponymy and territory

Studies on toponymy, in addition to linguistic glottologists, philologists, historians, ethnographers, etc., have also impassioned the geographers who boast research aimed at deepening the relationship between people and the environment, and also through the study of dialectal geographical terms. In this regard, there are significant contributions made to various Italian regions, including Sardinia, starting with those of Baldacci (1941; 1945). More recently, the place name has become part of the studies directed by some geographers to the perspectives with which the relationships between people and nature were born and evolved within those processes known as "territorialization" of which Raffestin (1977: 1986), Turco (1988; 2000) and Vallega (2003; 2004) have long talked. These processes concern the ways in which a human group appropriates the Earth's surface and transforms the natural elements according to its specific needs. To do this, there is a precise sequence of phases: the first is an intellectual one, which sees the identification of places that can fit within the existential dimensions, therefore about living and exploiting natural resources, giving it meaning and value, naming them and making them fit into its own spiritual and intellectual interests. The toponym

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then becomes the first element that connects people to a defined space, which transforms a physical environment into a cultural fact, which creates a territory assigning it a geographical dimension defining those values that transform the space into landscape, becoming in all respects a sign that can also be expressed through a symbol that graphically defines it (Scanu, Podda, 2007).

The study of the ways in which the names have spread over the territory and their transcriptions has changed over time is equivalent to defining the roots of the people's cultural base and to understanding the overlapping of different people and cultures in a specific space. From a geographical perspective, to study Sardinian toponymy means to understand the relationships between the inhabitants and their different regions in the island and go back to their history, ways of life, traditions and customs. As is well known, the toponym, the name assigned to a defined space, regardless of the geographical dimension to which it refers, is one of the fundamental elements in the construction of a geographic map of any type. On the other hand, the map is the medium by which the toponym manifests itself and through which it can be understood in its true dimension, not only physical and functional. The toponym, even if characterized by geographical attributes (such as coordinates), is usually considered by cartographers in the same way as any other graphic elements that define the representation, perhaps to be affixed once the drawing is complete, even if the toponymic presence confers dignity of territory to a simple spatial image. A map without toponyms, in fact, appears without the sense of representation. However, rarely the place name rises to the rank of a truly structured graphic symbol, that is provided with cartographic "personality" capable of conditioning the type of framework; today, in digital representations, it is often considered the simple component of a trivial layer, but not an element that holds a meaning that can rationally explain the object of the denomination (Vallega, 2004). Despite the minor interest in search for toponymic graphics in respect to the normal sign structuring, which instead constitutes the real representation of the territory, there are nevertheless a series of national and international rules on the writing, composition and translation of toponyms (the name or the sound that come from their pronunciation), to which the cartographic producers rigidly adhere, and above all to the geographical scale.

In the case of cartography for topographic maps a direct survey is necessary: this is an extremely delicate phase, especially in the case of Sardinia, due to possible errors in transcription, italianization, etc., if the operators do not know the local dialects. This happened during the first surveys of the Topographic Map of Italy at the end of the 19th century. These errors remained and were amplified in subsequent editions and in other cartographies that have used the same source, for example the Regional Technical Map at 1:10,000 scale and, today, the geodatabases derived from it after repeated updates (Fig. 1).

The possibility of making mistakes is connected to causal and systematic factors. Among the most critical elements are those related to the possession of adequate skills in the detection of toponym, in transcribing it on the basis of the local pronunciation and in assigning it the correct geographical positioning, especially in the case of regional names. These same data are then those that are used by derived maps, such as geographical and thematic ones, which maintain the primary compilation errors that are repeated and consolidated, often ending up replacing the original name. A new survey of the toponym with the means available today, if the operation starts from a bottom-up approach and involves the local population, with specially trained professionals, can lead to a complete and correct toponymic framework. It can produce a new cartographic base in which the relationship between territory and culture is revisited and traced back to its origins. What has just been observed can open up studies and specialist evaluations, as basic elements in the rediscovery of the geographical distribution of languages, such as the Sardinian one.

It is evident that a "collection" of documents (of maps, in this case) can better allow a defined and complete overview, which is, in fact, a regional toponymic atlas.

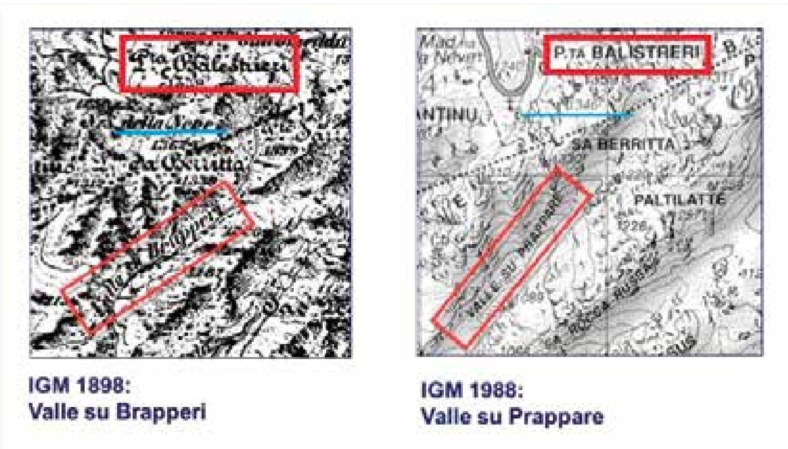

Fig. 1 - Example of variation in the transcription of toponyms between the first (on the left) and the last edition of the Topographic Map of Italy created by the IGMI in which, despite the same scale (1: 25,000) the writing has changed (Brupperi in Prappare; Balestrieri in Balestreri), in graphics and density.

The Toponymic Atlas of Sardinia: a successful experiment

The toponymy of Sardinia is currently the subject of study by some geographers of the University of Cagliari and Sassari who participated in the recent attempt, however only partially realized, to build the Toponymic Atlas of Sardinia, ATS, a project financed by the Region.

The ATS is an innovative and modern project, of vast geographical and cartographic interest that would certainly have been approved by Osvaldo Baldacci, geographer of the University of Cagliari who, since the early 1940s, had first faced the problem of toponymy and of the Sardinian language in general, from a geographical point of view.

The ATS has been conceived and proposed by Sardinian language researchers and, under the coordination of a Scientific Committee (CS) composed of linguists, glottologists, philologists, anthropologists, ethnologists, historians, geographers and cartographers, it intended to proceed with the census of the place names present on the topographic cartography, to be verified in the corresponding database directly acquired from the IGMI. The ATS also wanted to proceed with the systematization of toponyms in a database connected to a GIS platform integrated in the regional territorial information system (SITR). This is to be implemented through archival research, especially with reference to the so-called De Candia relief maps of about half of the 19th century that is the first large-scale geodesic mapping of the island from which was derived the cadastre and other cartographic documents.

The project can be summarized in the following points:

- Scientific and operational organization of the ATS project (preparation, presentation, financial and economic pluriannual framework)
- Definition of procedures and assignments of administrative, scientific and operational tasks to the Scientific Committee and to the financial management office
- Work planning and selection of some sample areas, which in fact are some municipalities located in the various Sardinian linguistic regions
- Selection of the field workers and their linguistic and cartographic training
- Transfer of data collected on cartography, phonetic transcription of toponyms and verification of results with correction of discrepancies
- Drafting of a first report and refinement of the methodology
- Preparation of an executive document that also contemplates the recourse to the SITR
- Calibration of the survey project on a provincial basis and confirmation of the survey staff
- Official presentation of a first state of the art (seminar held in Orosei in July 2009); sharing the results with the Region and agreement for the continuation
- Start of the survey in the two provinces of Cagliari and Sassari
- Elaboration of the data collected with their transfer in digital format and their insertion into the database with the creation of a dedicated thematic area for the SITR
- Annual administrative and accounting examination with remodeling of the project work phases for regional approval

The last audit of the reports by the Region dates back to 2012. The age limitations that have conditioned the permanence in the Universities of different members of the CS, the complex and long bureaucratic procedures, the difficulty of finding young graduates with linguistic and cartographic skills that could guarantee a good collection of data have hindered the continuation of the work. The results obtained are, however, good if we consider the operational difficulties of the survey on site, in the selection of the knowledgeable individuals in each municipality, in the acquisition of the pronunciation in the local speech, the correct definition of the space applicable to place the toponyms on the maps used for the survey relative to their inclusion in digital cartography.

From a summary analysis of the project results, we can see that out of the 55 municipalities that were expected to be completed in the first phase, 42 are in the province of Sassari and 13 in the province of Cagliari. For different reasons only a total of 29 were completed: 18 in Sassari and 11 in the province of Cagliari, as can be seen in Figure 2. However, a total of 6,878 new toponyms were found compared to those already recorded in official maps: 5,433 were acquired from archival documents (De Candia cadastre and related "sommarioni") and 1,445 were obtained from on-site interviews. This is a modest example of how such a project can recover a specific cultural heritage that otherwise would have been lost, with the possibility of wide use of the toponyms for scientific purposes and in the processes of valorization of the Sardinian language.

The geo-cartographic aspects

The realization of the ATS could have presented an opportunity to have a detailed toponomastic survey that could have been extended to the whole island territory. This would have been an operation verified and validated by experts, with the acquisition of toponyms orally transmitted and the assignment of the relative spatial domain fields, in addition to the integration with the various existing sources.

Also foreseen was a phonetic transcription of the place names in the IPA language and their insertion into the regional information system. This would make the toponymy an available part of heritage for scientific research, for the knowledge of the most singular aspects of Sardinian culture and making the pronunciation of the name correspond to the original through registration and transcription in the IPA. The direct survey in the field, the really strong and original point of the project, took into account some linguistically chosen sample areas and considered the acquisition of toponyms orally transmitted through interviews with leading figures of rural areas: hunters, old farmers and shepherds, rural policemen, forest workers, etc.

From a cartographic perspective, it was planned to insert in the information system the new toponyms, those orally acquired or those present in the old maps but that not yet appear in the official database, to position them geographically on the space to which they referred.

On a digital cartographic base that can be managed across many scales, every place name including the microtoponyms, that for Sardinia represent a subject of particular interest (Cassi, 2004), according to the typology (e.g. linear, areal, punctual type) has been positioned through the coordinates of the vertices of the minimum rectangle that inscribes it, or through those of its centroid (Fig. 3). This is a procedure derived in some way from the techniques used by IGMI and this application is very complex, long and expensive to carry out, especially if extended to the whole island. In this specific case a completely cartographic methodology was used, which above all took into account the institutional sources (as the different editions of the IGMI) and archives: in this way the sheets of the De Candia map were analyzed together with the so-called "sommarioni", in order to identify and to place the toponyms not yet present in the current cartography, defining the spatial delimitation of individual place names and reporting them on the digital maps. The relevant sheets of the Topographical Map of Italy (of the various editions) were also examined to highlight toponymic changes over time and to capture the phenomenon of the "Italianization" of place names that often caused the variation of some meanings, initially characterized by a close relationship between people and environment.

A specific interest was also taken in the changes in the position of a toponym on the map, at its persistence in subsequent editions and at the possible disappearance of the toponym in relation to the change in use of the territory. The analysis carried out verified a substantial change in the naming and distribution of toponyms and microtoponyms, and also a low presence of the old toponyms in the current cartography of the IGMI, whose database is usually taken as a reference for new representations, from Regional Technical Map to Geodatabases. Numerous partial and total changes were also highlighted in relation to the linguistic aspect of the original name, due to transcription errors that often involved the change of meaning or the alteration of the area originally designated, with consequent spatial variation of the word and its meaning.

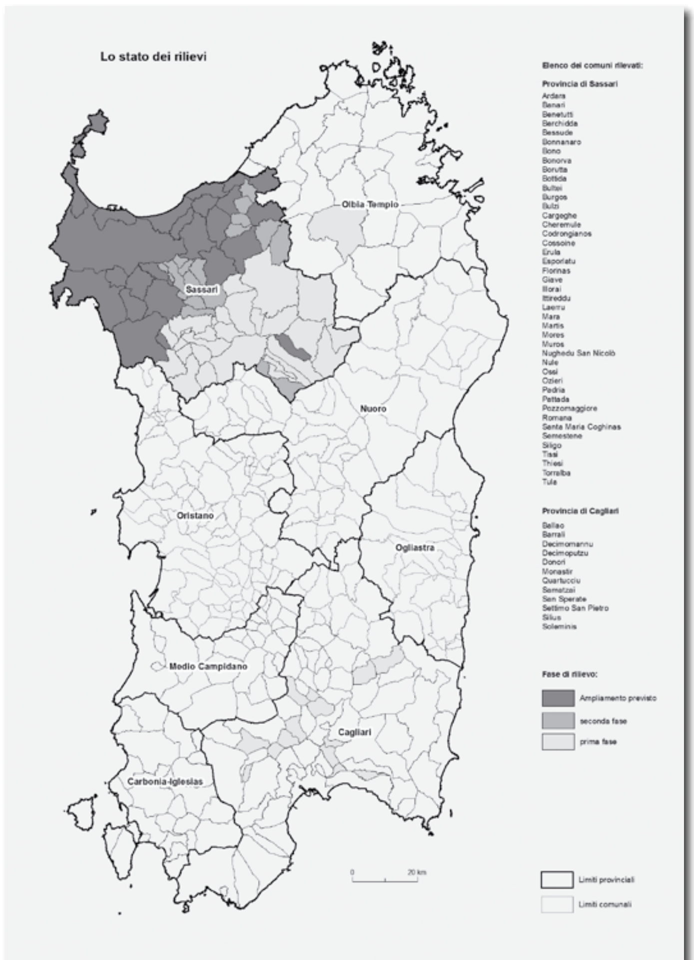

Fig. 2 - The state of the surveys made with the Sardinian Toponymy Atlas in the municipalities of the provinces of Cagliari and Sassari.

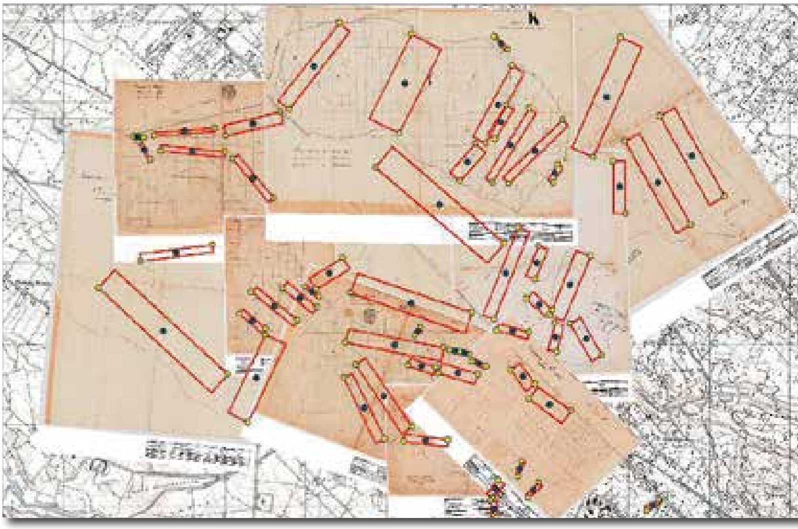

Fig. 3 - Example of the positioning procedure of toponyms derived from old maps, first appropriately georeferenced on the digital base made in a GIS environment.

The Toponymy and recent policies

The toponymic knowledge of the island is a very broad cultural aspect that directly affects the core of the Sardinian identity issue and cannot be put aside only because the ATS project has been interrupted. The Region had considered the toponymy research and the Sardinian Linguistic Atlas a cultural objective and had included it in the three-year plans for the implementation of Regional Law no. 26 of October 15, 1977 for the promotion and enhancement of the culture and language of Sardinia, preceding also the law 482/99 for the protection of linguistic minorities. The Region had instead proceeded to experiment with the affixing of the main toponymy (inhabited centres) in some maps spread over the territory and in the bilingual vertical road signage. This law, which has been revisited several times, has produced some interesting opportunities to enhance several specific projects on the island, including the funding of university chairs in various disciplines in the wake of a project opened up by Archeology of Sardinia.

On 3 July 2018 the Regional Council of Sardinia approved the law no. 22 on the "Discipline of regional linguistic policy", a measure long awaited and desired by many people to correct the inefficiencies and inconsistencies of previous regulations. This new law denotes substantial attention to the actions aimed at including the Sardinian language within generalist practices and activities, such as the use of bilingual written forms in public offices, the establishment of linguistic offices of territorial coordination, and the training of specific personnel for teaching Sardinian in schools, etc.

This is, however, without favouring the rediscovery of local cultural values in a structural and rooted way because of the few references to toponymy that represents the true linguistic specificity of Sardinia.

The law recognizes that "The Sardinian language, the Catalan of Alghero, the Gallurese, the Sassarese and the Tabarchino, are part of the immaterial heritage of the Region, which adopts every measure useful for their protection, enhancement, promotion and dissemination" (art. 1, par. 1).

However, this law poses some questions:

- It removes the differences, well known to scholars, between the two most significant Sardinian linguistic variants, the Logudorese and the Campidanese, unifying them within an undefined "Sardinian language".
- It assigns the same linguistic importance to all dialectal forms, in fact politically deleting what linguistic science had so far defined. Therefore, the new law does not adequately consider the historical events that introduced the Tabarchino and the Catalan or the events that have favoured the affirmation of the Gallurese and the Sassarese.
- It also puts the minor variations, in terms of geographical extent and inhabitants concerned, on the same level as the "Sardinian language", without however specifying what it is, between Logudorese or Campidanese (the most widespread variant).
- According to the law, even the local dialect as in the case of Sassarese, must be considered as a true language, although today it is a known fact that only a group of inhabitants inherited Sassarese from families who lived inside the city walls that were only opened in the mid-19th century. In fact, the example of the Sassarese is a reference not to the city, considered as a geographical entity and therefore characterized by specific territorial cultural references, but to a smaller group of inhabitants.
- With the exception of the Tabarchino (referring to the Island of San Pietro) and the Catalan (referring to the municipal of Alghero) there is no link detected between areas dominated by different languages and the territory.
- The law establishes a "Consulta de Su Sardu" (art.8) with the task to define an official "spelling" also on the basis of previous experiments of the Lingua Sarda Comuna (an earlier attempt to standardize the idiom) and to set up a system of "linguistic offices", one of regional coordination and others in the capitals of the recognized linguistic varieties (art. 11). These last tasks, among others, have to promote the dissemination and knowledge of the Sardinian language and could collaborate with local authorities "in the search, identification and restoration of toponyms and denominations".
- In art. 13 - Toponymy and road signs, paragraph 1 establishes support for the research and restoration of denominations in the Sardinian language, conforming to local traditions and uses, together with the determinations regarding the research of local customs related to the naming of places, with particular evidence for Alghero. Paragraph. 2 provides for the recognition and cataloguing of the historical, linguistic and toponymic heritage and the realization and dissemination of the linguistic and Toponymic Atlas of Sardinia.

From this short analysis certainly appears an unequivocal fact: the Toponymic Atlas (the only element that leads to scientific reflections on toponymy) does not seem to be central to the regional policy for the preservation of the language.

However, in the new law can be found some references thanks to which a new ATS project can be continued. But, in fact, at this moment this is a remote hypothesis as well as that to systematically collect toponyms still present in Sardinia in their right dimensions: spatial, linguistic, philological and phonetic, thanks to the discovery on the map or through a new addition to the cartography (in the case of new toponyms).

With the aim of specifying further the cultural dimension linked to an operation of correct recognition of toponyms and consequent systematic representation within a Toponymic Atlas – here intended as a scientific tool at the service of the whole community – also as a function of a possible continuation of the ATS steps, it seems useful to examine those best practices that have produced appreciable results on the cognitive and technical-operational level. An interesting experience, in this sense, is that of Catalonia where must be recognized a certain maturity and specialization in terms of protection of language and toponymy.

Even if the first attempts to recover, safeguard and enhance Catalan (which after the Spanish Succession War of the 18th century lost its political legitimacy in favour of Castilian, which became the official language) goes back to the thought of the Renaixença of the 19th century, only in 1912 was the first important attempt made to adopt a standard language for Catalonia. The reference work is La gramatica de la llengua catalana written by Pompeu Fabra. This assumed that the official language for a possible process of "normalization" was the Catalan spoken in the central area of the region that had its core in the city of Barcelona, already the main centre of economic, political and social power. It should be noted that, even if in Catalonia there existed and still exist different dialects and variations, the officially recognized Catalan taught in schools and used in public offices, documents and toponymy is precisely that identified by Fabra, and later further normalized thanks to the contribution of the Institute of Catalan Studies, an Academy of expert linguists. Even if the Francoism (1939-1975) the use of Catalan was forbidden, in 1979 with the approval of the Statute of Autonomy of Catalonia it became an official language, while with the Law no. 7 of 18 April 1983 the linguistic normalization process was regulated. The "rediscovery" and diffusion of Catalan has also involved the toponymy for which a special commission was established by the "Generalitat de Catalunya". On the dedicated website, in which it is specified that the place names "have a technical and cultural function" such that the Catalan toponymy "is a collective heritage to be safeguarded and an integral part of the Catalan linguistic and cultural heritage", we can find the reference legislation, the criteria used and other useful publications. But it is in the Nomenclàtor oficial, a digitized toponymic atlas that contains over 52,000 toponyms and is proposed as a reference for official cartography, signage, travel guides and other information products, that toponymy collection reaches appreciable scientific achievements and qualified cultural results. The first edition of the Nomenclàtor dating back to 2003 reported 39,661 toponyms were included, while the second edition in 2009 added 13,039 with associated phonetic transcriptions and recordings. From its consultation it is possible to see for each of the 41 "Comarcas" of Catalonia and for each of the related municipalities the toponyms with cartography, phonetic transcription and useful information for a complete territorial classification (Figures 4 and 5)

Fig. 4 - Nomenclàtor oficial de toponìmia de Catalunya
(Source: Nomenclàtor oficial de toponìmia de Catalunya – Generalitat de Catalunya).

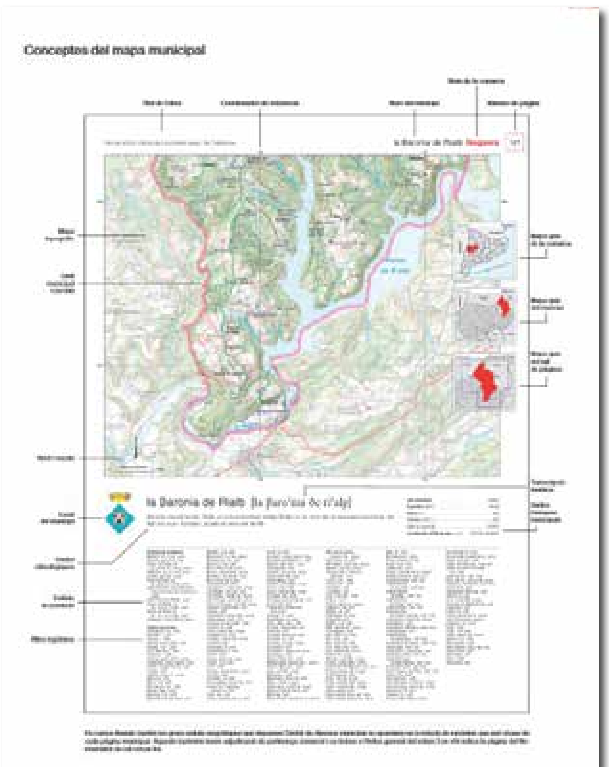

Fig. 5 - Example of cartography with toponyms in each of the municipalities of Catalonia
(Source: Nomenclàtor oficial de toponìmia de Catalunya - Generalitat de Catalunya).

In fact, a certain similarity emerges between the Catalan platform and the ATS, even if the first appears more complete and, in a certain sense, more sophisticated but it could be considered as a possible reference model for the desired resumption of work. The availability of the Atlas on the web gives to all and for any reason the possibility of consultation and denotes a great innovative process for realization in terms of cartography. This also demonstrates the practical utility, cultural, social and economic value that a toponymic atlas is able to generate for the territories, especially where local communities express the need to "govern" their local development processes in a more effective and participatory way.

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Place names as sources to identify landslide risk areas: a diachronic approach to the Trentino case study

Elena dai Prà*

Abstract

The potentialities of the analytic study of place names in the identification and location of geomorphological, cultural or economic features of the past have been highlighted by historical geographic research starting from the definition of Gelling (1978). This work aims to assess, using a diachronic perspective, the dynamics that have affected the Trentino (Autonomous Province of Trento) place names using the terms related to landslides phenomena as a case study. The contribution describes a method of investigation divided into steps: first, the identification of toponyms related to landslides in the place names database of the current Provincial Technical Map; second, the regressive comparison with previous cartographic documents with provincial coverage, such as the 1920s IGMI and the Habsburg Cadastre (1853-1861); third, the comparison with other sources. The assessment will allow identification of persistence and discontinuity in the historical toponymic substratum and the formation of "neo-toponyms" in recent times. In conclusion, this contribution has a double objective: first, to assess the capability of toponymy to record and safeguard the historical memory of landslides events in the Province of Trento territory; second, to improve a geographic-historical method with a strong teleological and applied output, as the enrichment of the Dizionario dei Toponimi Trentino [Toponymic Gazetteer of Trentino] promoted in recent decades by the Autonomous Province of Trento.

Keywords: *place names, historical cartography, historical geography, landslides, hydrogeological vulnerability.*

Introduction: historical geographic research and place names

The study of "place names" or toponyms has a long tradition of research among historical and cultural geographers, together with historians, anthropologists, philologists and archaeologists. The interest in this source lies in its ability to "survive" the events or the features that inspired it, giving back information on landscape features, settlement patterns, morphology, ethnic and political processes that have now disappeared. In the words of Margaret Gelling (1978), place names are "signposts to the past"; according to Angelo Turco, to name a place is the first step of the territorialization process, and means to transform a "space" into a "place" (Turco, 1988, p. 81); moreover, as pointed out by Andrea Cantile in the introduction of the Proceedings of the International Scientific Symposium organized by UNGEGN and the Istituto Geografico Militare in 2015,

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"geographical names are also an intricate kaleidoscope of elements in which is written the story of mankind […] signs of the life and actions of Man" (Cantile, 2016, p. 11).

Following these routes, the regressive reading of the toponyms has been adopted by many scholars: for example, in Italy place names have been used as sources for the study of morphological features of the past (Arena, 2004), of disappeared agricultural systems (Cassi, Marcaccini, 1992; Cassi, 2007; Desinan, Dentesano, 2004), of settlement patterns (De Vecchis, 2004), of the dissemination of rural practices (Conedera et al., 2007), and of past migrations (Santano Moreno, 2008). The adoption of GIS software in geographical research allowed the management of larger database and big data, as well as new ways to identify and analyze the spatial location of place names (Gabellieri, Grava, 2016).

Moreover, place name studies in Trentino (Northern Italy) have a long history behind them. A pioneer in this field was the geographer Bartolomeo Malfatti (1828-1892); he promoted a study about Trentino toponymy which remained incomplete and has been completely lost (Dai Prà, in press). Starting from Malfatti's approach a number of studies have flourished, as the research of the geographer Cesare Battisti (1875-1916) (Conti, 2018). Research was not limited to geographic fields, and involved the archaeological field (Paolo Orsi (1859-1935), one of the most important archaeologists of the 19th century compared place names with archaeological surveys) and also language history: Carlo Battisti (1882-1977), author of the Dizionario Toponomastico Atesino (1938-47), and Giovanni Battisti Pellegrini (1921-2007) were two of the most important glottologists of Italy (for further details, see Pellegrini 1991 and Mastrelli Anzillotti, 1993).

Following these routes, in the 1980s the Provincia Autonoma di Trento initiated and has provided incentive for a project of collection and study of Trentino territory place names, in order to promote the knowledge of their pronunciation, use, meaning, tradition and origin. The research, still ongoing, has been based on the collection of oral sources. For each municipality of the Province, an analytic form has been prepared, and results have been collected and developed in the Dizionario Toponomastico Trentino (Place Names Database of Trentino)[1]. From 2005, the research has been extended to ancient notary deeds. The database currently includes over 200,000 toponyms (Pellegrini, 1991; Cordin, Flöss, Gatti, 2011). Until now, cartographic sources have been neglected in this research.

In this context, this paper aims to assess the dynamics that have affected the place names of Trentino over time, proposing an historical-geographical approach based on the analysis of the distribution of toponyms in space and in time using cartographic sources. The work, currently ongoing, has a double objective: first, to assess the ability of the toponymy to record and fix the historical memory of events for Trentino areas, as well as the identification of persistence and discontinuities in the historical toponymic substratum and the development of "neo-toponyms" (Cassi, 2004) in recent times. Second, the assessment of a geographic-historical survey method based on historical cartographic sources with a precise

[1] https://www.cultura.trentino.it/portal/server.pt/community/dizionario_toponomastico_trentino [14/12/2018].

application outcome in the enrichment of the Database Toponomastico Trentino.

As a case study, the lemmas that can be related to landslides have been chosen. As hydrogeological management of mountain areas is nowadays one of the crucial problems of Italy and Mediterranean areas (Botta, 1988; Palmieri, 2002; Fiorino, Porru, 2013), geographical and historical research can contribute to address this theme, for example, through the identification and mapping of areas more affected over time.

Materials and methods

The contribution describes a method of investigation divided into three steps: (1) the identification of toponyms related to landslides in the Place Names Database of the current Provincial Technical Map; (2) the regressive comparison using GIS with historical cartography at provincial coverage, such as the IGMI maps of 1920s and the Habsburg Cadastre (1853-1861); and (3) the comparison with other types of documents.

As historical sources, the following maps have been used:

- The current Provincial Technical Map (TPM), 1:10,000, produced by the Province of Trento in 2017[2];
- The Topographic Map of Italy, 1:25,000, produced by the Italian Geographic Military Institute (IGMI) in the 1920s;
- The Habsburg Cadastre, 1:2,880, produced by Habsburg State between the 1853 and the1861;
- The Napoleonic Cadastre, 1:2,000, produced by French Army in the 1810s.

These maps have been chosen because all of them have a regional coverage. They form a heterogeneous group: the maps have different purposes (some are produced for fiscal aims, others for military or land management goals) and different scales. This diversity requires providing the peculiarities of each document, i.e. the criteria and objectives for its production.

The starting point is the Place Names Database of the current Provincial Technical Map of the Autonomous Province of Trento. This source is a digital archives that can be imported into a GIS software and can be easily interrogated using digital queries. The search for toponyms related to landslides was carried out through the selection of some key words, or "geotoponyms" that evoke the presence of erosive phenomena. As references, the etymological collections of place names in Trentino (Pellegrini, 1991; Flöss, 2000), the study on landslides of Roberto Almagià (1907-1910), and the works of Laura Cassi (2007; 2009) have been particularly useful in this selection. The database queries and the comparison of results with the previous cartographic sources allow a diachronic qualitative and quantitative analysis; moreover, for further assessment, the place names metadata has been compared with the "Real Land Use Map" (elaborated by

[2] http://www.territorio.provincia.tn.it/portal/server.pt/community/carta_tecnica_provinciale/920/carta_tecnica_provinciale/40052 [14/12/2018].

the Provincia di Trento) to verify the correspondence with land use coverage, and with the *Inventario dei Fenomeni Franosi in Italia* dell'ISPRA (2007).

Results

The key words used in the research and for the query are: *fran*, rovin*, ruin*, ruovin*, lavin*, smott*, ger*, gler**.

Ninety-nine place names have been selected. This is a limited number, which allows us to assess the method and to analyze each place name.

Figure 1 shows their distribution, using a density map of the Autonomous Province of Trento. Toponyms related to landslides are clustered in some mountain areas, such as the Cavalese, the Val di Fiemme, the Molveno lake and the Vallagarina.

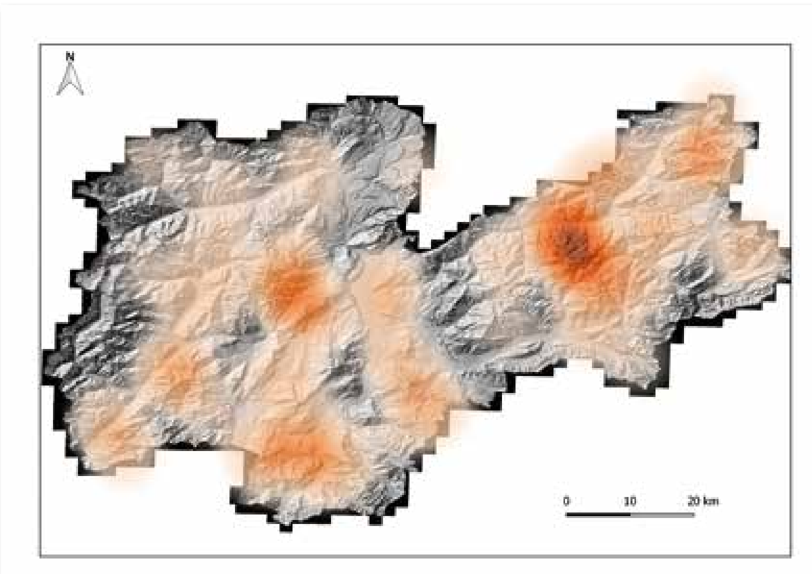

Fig. 1 - Location of place names related to landslides in Trentino in form of a heat map. The identification has been carried out using the Place Names Database of the current Provincial Technical Map (2017).

Secondly, the research followed a regressive approach: starting from the location of the current toponym, we proceeded to a comparative reading with the place names recorded in the IGMI maps of the 1920s and in the Cadastre maps of the 19th century. Historical maps have been digitized in 300 dpi, geo-referenced and overlapped on the place names database vector file in the GIS software.

As shown in Figure 2, 63 toponyms were already recorded in the IGMI of the 1920s; 39 are the most "ancient" ones, already recorded by the 19th century Catasto (39.4%). 32 are those of recent formations, as recorded only on the current map (32.3%). The comparison of the 39 "ancient" toponyms with modern ones shows a heterogeneous historical evolution: 17 remained unchanged (43.6%); 13 had limited modifications (33.3%); 9 have substantially changed, while maintaining the reference to landslides (23.1%).

The comparison with the Cadastre produced by the French Army during the Napoleonic times has been ineffective, because this source covers only a limited area of the Trentino, and some of the maps do not show place names.

Figure 3 shows the topographical locations of the selected place names, as well as their changes over time using different colours. The most "ancient" place names related to landslides appear to be clustered in the Adige Valley, while the newest ones are located in the eastern part of the Province of Trento.

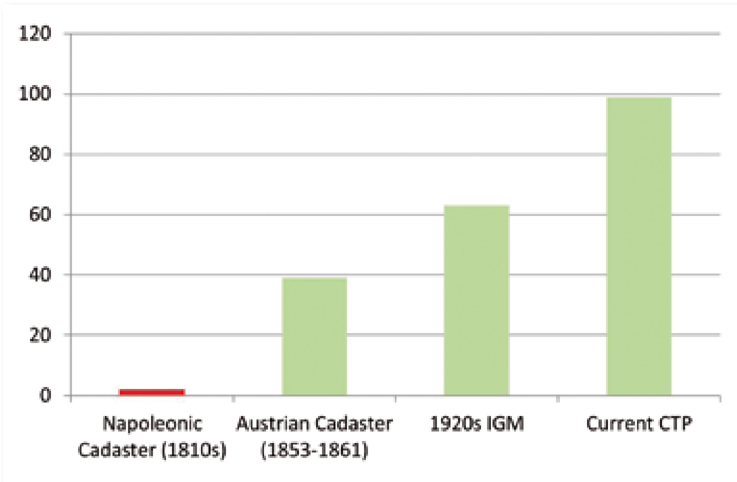

Fig. 2 - Distribution of place names related to landslides in each cartographic source.

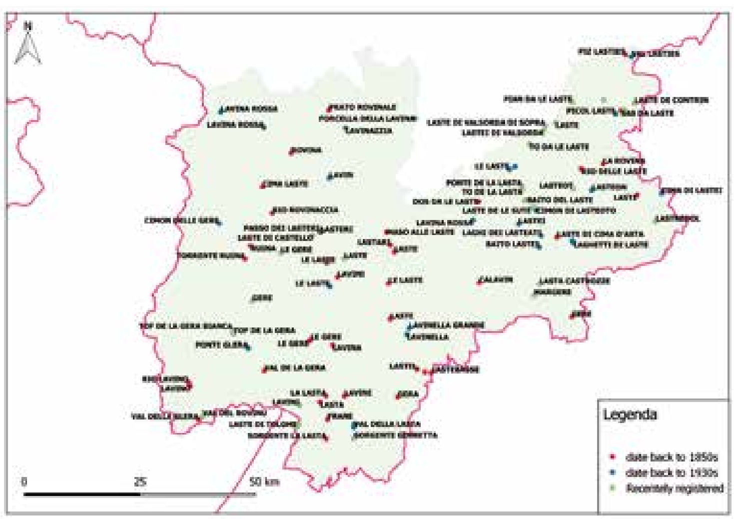

Fig. 3 - Location of place names related to landslides in Trentino. The identification has been carried out using the Place Names Database of the current Provincial Technical Map (2017).

Cadastre (1853-61)	IGMI maps (1920s)	Current PTM	Transformation
Gere	Le Gere	Gere	Unaltered
Lavina	Lavina	Lavina	Unaltered
Prato rouvinale	Prato rovinale	Prato rovinale	Slightly modified
Lavine	Lavino	Lavino	Slightly modified
La Gera	La Lasta	La Lasta	Heavily modified
Fraino	no data	Val della Glera	Heavily modified
Rovini	Rovine	Rio Rovinaccia	Heavily modified
Lavini	Avine	Lavini	Unaltered/ Heavily modified

Table 1 Comparison of place names in the three different sources.

Table 1 shows some examples of place name changes. For example, the hill called "Gere" appears as the same name in the three sources and has been considered "unaltered". The place called "Prato rovinale" was registered in the 19th century as "Prato rouvinale", so has been considered "slighly modified". Finally, the passage from the name "La Gera" to the word "La Lasta" is a heavy modification, while both words are related to landslides. A more complex case is the place registered "Lavini" in the Habsburg Cadastre, that is called "Avine" in the 1920s IGMI – probably because of an error in transcription – and again "Lavini" in the current map (Fig. 4).

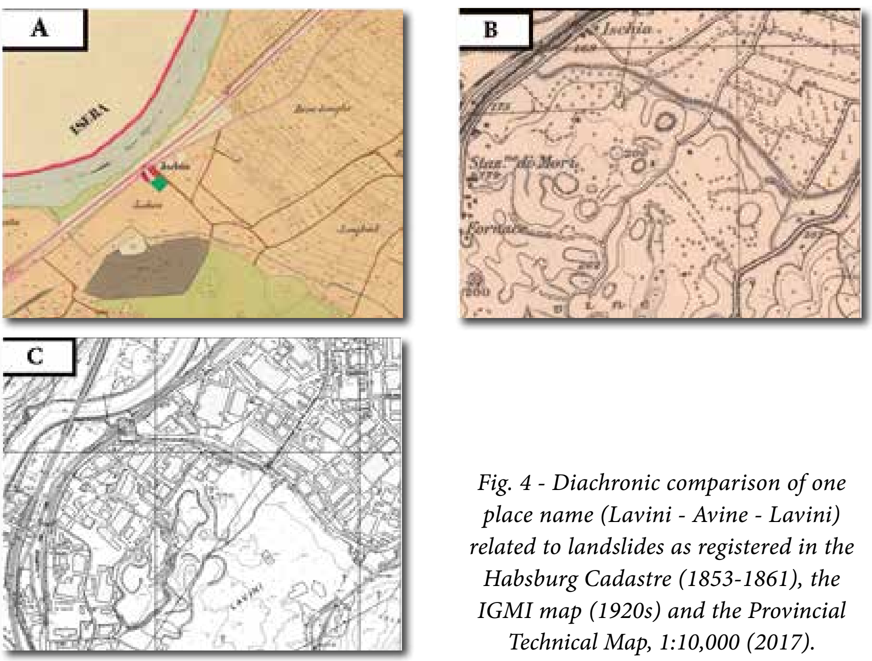

Fig. 4 - Diachronic comparison of one place name (Lavini - Avine - Lavini) related to landslides as registered in the Habsburg Cadastre (1853-1861), the IGMI map (1920s) and the Provincial Technical Map, 1:10,000 (2017).

Knowing the exact geo-location of toponyms also makes it possible to cross reference this data with other sources. For instance, the place names vector shapefile has been overlapped and compared with the current "Real Land Use Maps" (2003) of the Province of Trento[3]. Using the QGis tool "selection for location", it was possible to verify the land uses corresponding to the location of landslides. The largest number of landslide toponyms are located in wooded areas (around 25% in coniferous woodlands and around 15% in deciduous woodlands); around 17% are located in areas which are actually described as "pastures", and another 16% in areas described as "rocks" (Fig. 5).

Moreover, place name locations have been compared with the "Landslide Areas Maps" and the "Inventory of Landslides" produced by the Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA)[4]. 66% of the place names related to landslides are located in areas with mapped landslides (Fig. 6). The next step of the research will involve a field survey to verify if in the other cases the landslides are too small or too ancient to be recorded on the official maps, or whether the place names are related to other phenomena.

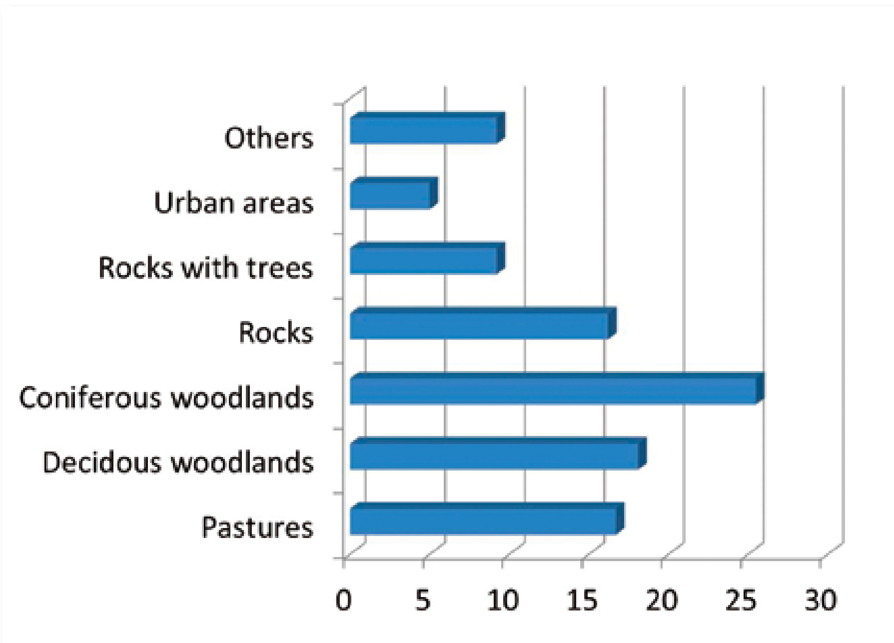

Fig. 5 - Correspondence between selected place name locations and land use categories, according to the "Real Land Use Map" (2003).

[3] https://siat.provincia.tn.it [14/12/2018

[4] The IFFI Project (Inventario dei Fenomeni Franosi in Italia), developed by the Istituto Superiore per la Protezione e la Ricerca Ambientale, provides detailed data on the distribution of landslides in Italy. To date, the inventory involves over 620,000 landslide phenomena with information related to their location and their nature. For the Province of Trento, the database has been uploaded in 2003. (http://www.progettoiffi.isprambiente.it/cartanetiffi/ [14/12/2018].

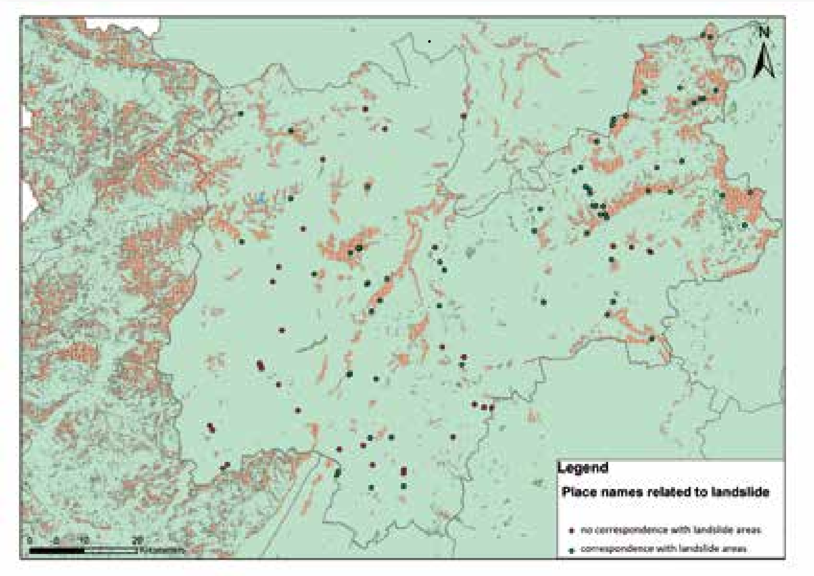

Fig. 6 - Overlapping of the place names relates to the landslides shapefile and the Inventory of Landslides (Inventario dei Fenomeni Franosi in Italia) shapefile. Correspondences between the mapped landslide and the place names are expressed in green dots.

Discussion: place names and new perspectives for geographical and historical research

In conclusion, toponyms related to landslides offer numerous examples of the suggestions produced by environmental phenomena in the perception of local populations, highlighting the places where the calamitous events have become part of the process of naming the spaces, as well as part of the living memory of the population. Comparing maps of different years can allow us to reconstruct a "stratigraphy" of the place names.

As a production of the long history of the use and organization of the geographical space, the names of the places, read with a critical and comparative approach, represent an immaterial depository that, although invisible, is undoubtedly comparable to the data of an archaeological excavation (Cassi, 1991) and it can play an important role in the knowledge of historical calamitous phenomena and their spatial co-location.

Nowadays, the issue of calamitous events is at the centre of attention for both scholars and media for the growing impact and for the empirical evidence of the economic, social and environmental damage caused. For this reason, specific research is required, as well as the analysis of historical information that can contribute to the knowledge of territorial vulnerability.

Moreover, the collection of historical place names information characterized by the temporal and spatial location of the event can produce an auxiliary information framework to be used to enrich the database of the Dizionario Toponomastico Trentino.

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Toponymy, history and geographic information system of selected place names in the cognomen of the Alaafin of Oyo

Ayokunmi Ojebode*

Abstract

This study unearths some toponyms in the cognomen of the Alaafin ('Owner of the palace') of Oyo, Nigeria in order to reveal their historical cum geographic significance among Oyo Yoruba. Historically, Oyo was the largest West African empire founded 1300c. Our data comprise ten (10) purposefully selected historic towns in Southwest Nigeria while Hallidayan contextual models served as our theoretical construct. The study is predicated on the transliteration of two (2) oral performances on the monarch particularly, from his royal bard, and a popular presenter at the Nigerian Television Authority, Oyo. Furthermore, the study indicates that the histories of the selected toponyms are entrenched within the cognomen (history) of the monarch mostly as conquered colonies during military campaigns and conquest of the Old Oyo Empire. Significantly, the toponyms serve as descriptive/historical/geographical instruments for perpetuating events and recording antecedents in Oyo, Nigeria.

Keywords: *Nigerian toponymy, Alaafin, Oyo, cognomen and history.*

Introduction

"Gere pa ilu meje po baja"
(He waged war against seven towns at the same time)

The above excerpt from the recordings on the Alaafin of Oyo is an overview into his (predecessors') military campaigns and conquest during the Old Oyo Empire. Their gallantries, valour and heroism during the 600 years and apogee of its empire are apt features for toponymic, historic and geographical scrutiny. Oyo rose from an insignificant town to become the largest empire in West Africa in 1300 C.E. And by the mid-18th century, it has extended its domain beyond Yoruba states into the present Republic of Benin (Dahomey), Nupe, Abome, Weme, and other parts of Togo. The Empire achieved such a feat based on its systematized political administration assisted by Oyo Mesi ('a supreme council of state, whose seven members were collectively recognized as king-makers' and the Ogboni 'earth cult').

Secondly, the Oyo Empire had top-notch military power. Her rise as a great empire was owed to the well-organized foot armies and cavalries led by the Aare Ona Kankanfo ('generalissimo of Oyo') who was instrumental in the expansion and suppression of internal revolts. Thirdly, the Oyo Empire grew in economic power based on very productive agriculture, trade with Sudan, Spain and Portugal, also lucrative industries and wealth from taxes and tribute. This sound economy

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enabled the Alaafin to maintain elaborate imperial administration and also equip his large army. Fourthly, the Empire maintained social and cultural unity in Yorubaland by promoting a feeling of kinship through the standardization of a common language (Yoruba) and religion. To its credit, the Oyo Empire achieved remarkable longevity and relevance from the 15th to the 19th century.

The major cause of the collapse of the Empire in the 19th century was the suzerain style of leadership of the Alaafin which led to loss of power from the centre. Like the Sudanese empires of Mali, Songhai and Kanem-Bornu, the Oyo Empire was quite expansive and this made the management of its provinces more difficult. Also, the capital of the Empire was situated on the northern fringes while its provinces were in the south thus the Empire could not adequately protect itself from incessant infiltrations by the Fulanis from Northern Nigeria. Lastly, rebellion against the Alaafin by his provincial heads and warlords in the late 18th and early 19th centuries further ruptured the central government.

In spite of the fall of the Empire, its influence keeps evolving today in the cultures of countries such as: Republic of Benin, Togo, Brazil, Colombia, Cuba, Puerto Rico, the Guyana, Jamaica, Grenada, Trinidad and Tobago, St. Kitts, and St. Vincent (Dopamu, 1999, p. 1). African diasporic societies have been more impacted, particularly after cults: Lucumí cult also known as Santeria in Cuba and Candomblé cult in Brazil. Oyótúnjí Village near Sheldon, Beaufort County, South Carolina in the United States of America is another offshoot of this culture mutation (Kamari, 2009, p. 214).

The reason for this is that Yoruba slaves were being taken to Cuba in the Transatlantic movement. In the 19th century, large numbers of Yoruba arrived in Cuba, perhaps as many as 85,000 people (Law, 1978, p. 1). Thus, this also triggered the transplant of Oyo ethos from Southwest Nigeria into the European states. For instance, Oyo Yoruba deities such as 'Sàngó is modified as Changó/Jakuta', (Ogum) Ògún, (Ochun) Ọ̀ṣun and several others for ritual rites in Cuba, Puerto Rico and Venezuela. While Santería (Sango) is consecrated as Saint Barbara, Candomblé (Xango) as Saint Jerome and Saint John the Baptist (Dopamu, 1999, p. 4).

Despite the affluence of the empire turned city in African and diasporic histories, its toponymic import has been overlooked by a plethora of scholars such as Finnegan (1970), Abimbola (1964), Barber (1991) and Johnson (2001), Kalilu (1991) who have extensively written on Oyo history and its oral traditions. This study is thus an attempt to bridge the gap and also exceed their purviews.

Oyo as a cosmopolitan city

The present city is known by its natives as the 'New Oyo' (Ọyọ Atiba) to distinguish it from the former capital to the north, 'Old Oyo' (Ọyọ-Ile), which was deserted as a result of rumours of war. The Old Oyo was situated some 133 kilometres to the north of its present site, on the borders of what is now Northern Nigeria. While 'New Oyo' is 55 kilometres on the A1 highway north of Ibadan, the capital of Oyo State, Nigeria. Its inhabitants are predominantly Yoruba-speaking, and its present traditional ruler is the Alaafin, His Highness Oba Lamidi Olayiwola

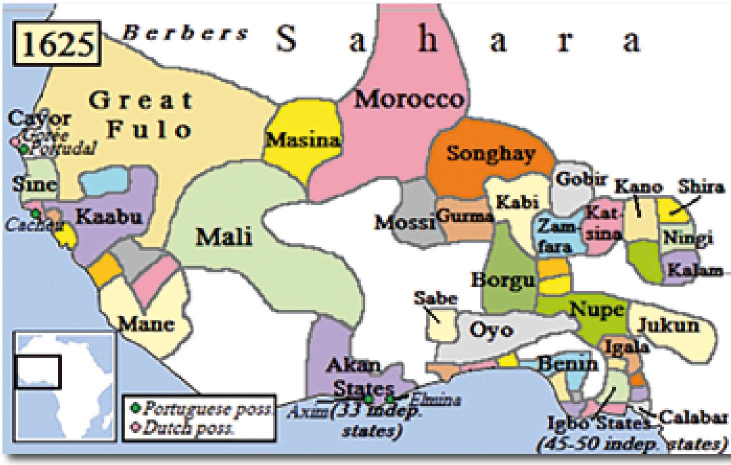

Fig. 1 - Map showing the scope of old Oyo Empire
Source: www.historicalforte.blogspot.com.

Adeyemi III enthroned in December 1970. At the age of thirty-one (31), he thus became the first ever literate Alaafin and one of the youngest natural rulers in Yorubaland (Oyo State Series, 1977, p. 9).

It is also one of the largest cities in Oyo State with an increasing population of about 428,798, based on the Nigerian census, 2006. The Oyo dialect is accepted as standard Yoruba and vehicle of university scholarship in the Yoruba language and

Fig. 2 - Map of Nigeria showing Oyo State
Source: www.akelicious.net/2018/04/oyo -records-147-growth-in-tourism.html.

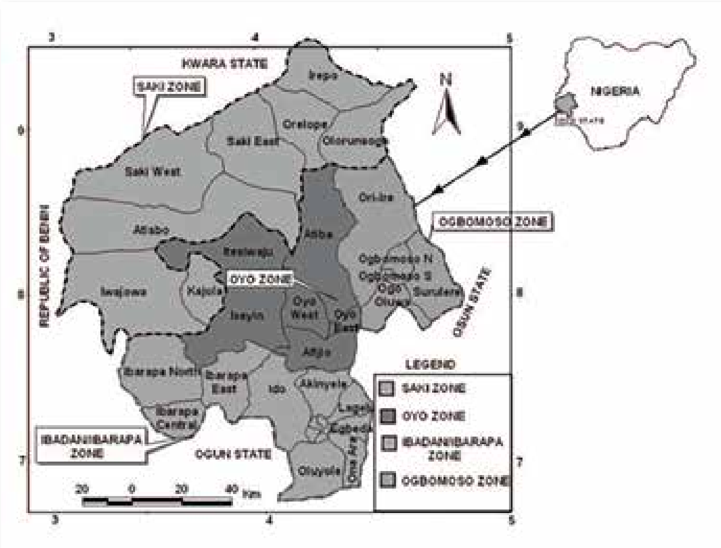

Fig. 3 - Map of Oyo State showing Local Government Areas
Source: www.researchgate.net.

the linguistic format of the Yoruba Bible (Oyo State Series, 1977, p. 5). The city has three Local Government Areas viz: Atiba LGA, headquartered at Offa-Meta; Oyo East LGA, headquartered at Kosobo; and Oyo West LGA, headquartered at Ojongbodu.

Materials and methods

The data was analyzed from both historical and situational contexts which were used to disambiguate the ten place names within the sociocultural milieu of the Oyo people in Nigeria. While the primary research strategy constitutes oral interviews. This is so because the names were conveyed from historicity and narrativity. Interviews were conducted with Adesina Adejare, a presenter at Nigerian Television Authority (NTA) Oyo, skilled at reciting the cognomen of the Alaafin of Oyo and Mayowa Ayolo, the royal chanter/bard (Akewi) to the incumbent monarch. The interviews transcribed from Yoruba into English provide the bedrock for our data analysis.

Results

From our findings, five out of ten toponyms are circumstantial names based on either idiosyncrasy/occupation of a progenitor or history, particularly, in relation to the military campaigns of the Alaafin. While the other five are descriptive names that reflect geography and topography of their environs. It has thus been proved through our analysis that toponyms, history and geography are connected because

Fig. 4 - Google Map showing Iseke Market.

for every locale in Oyo there is a story behind it. And more so, Oyo people engaged a distinct mode of history-recording and mapping orally within the cognomen of their monarch(s).

Iseke

"O gbena kale ni Iseke omo isin"
(He brought fire - diverse calamities - upon Iseke)

Historical context

The town name 'Iseke' was coined from the hilarious disposition of the progenitor who was known by natives as a fun-filled individual, and as such he often qualifies his exhilaration onomatopoetically with the word, Seke ('being exuberant'). With passage of time, this word metamorphosed into his appellation

Fig. 5 - Google Map showing Apaara.

and eventual town name, as he was fondly described as 'Baba seke ni moyo', ('the man that rejoices exuberantly'). The office of the man as paramount chief further contributed to the acceptance of the name. Iseke is after the town Akinmoorin, close to the road that leads to Imeleke. Among other town names that are discussed in this study, this town has been in existence at the present site of Oyo prior to Alaafin Abiodun Atiba's relocation in 1837 and has survived till today.

Situational context

The above excerpt implies that Alaafin Atiba stormed the town in fury, most likely, to coerce its inhabitants into submission.

Apaara

"*Won ko apata leri apata, bembe lu 'gudu*"
(They set rock against rock, bembe drum against gudugudu, Lona Apaara, ojo akanlu to dele, along the path that leads to Apaara, before the war started)

Historical context

The town name was initiated by the circumstance of birth of the progenitor who was an Abiku (a spirit child with recurrent deaths). And as such, his cyclical movement between life and death gives rise to the appellation, Apa ('someone who is murdered/dead') and Paara (back and forth). The name can thus be read as 'someone who dies and return to life back and forth'. The progenitor grew from an Abiku child into a brave and renowned hunter. His hunting prowess qualified his selection as a kind of 'defence officer' for the Alaafin to prevent intruders.

He and his townsmen were thus allocated some portion of lands by the Alaafin between Awe and Akinmoorin, along Ife-Odan road in Oyo East Local

Fig. 6 - Map of Nigeria showing Oyo-Ile, Oyo and Ibadan.
Source: www.africanunchained.blogspot.com.

Government today. When the Alaafin Abiodun moved to the present Oyo in the 10th century, he compelled the Chief of Apaara to move his base closer to his domain. The relocation to Oyo-Ile (where the Oyo Empire was first situated) was inevitable due to constant inter-tribal wars at the previous settlement.

Situational context

The above excerpt describes a battle scene with imageries of 'war drums' and soldiers who 'hid in rocky parts' along the path to Apaara. This intriguing information describes the offensive nature of the inhabitants of the town as hunters employed by the then Alaafin to defend his territory. The reference to soldiers hidden in 'rocky places' is a traditional defensive mechanism by the military during war to get a perfect aim at enemies from a distance. And more so, the pictorial representation of 'rocks' in the line aptly describes the topography of the town.

Owinni

"O gba oke Owinni todo todo"
(He claims the entirety of Owinni including its rivers)

Historical context

This town primordially was a recreational site serene for relaxation by the Alaafin due to its lush vegetation, rivers, hills and valleys. It is popularly known as Oke Owinni, (Owinni hill) because it rests on a crest as alluded to above. In fact, one of Alaafin's farms was situated there and significantly, it was also a location to seal deals and trade slaves between Oyo and Dahomey (Robertson, 2008, p. 93). But, gradually as civilization increased in Oyo, it became more recognized as the hilltop for the Federal Government Girls College (FGGC), Owinni established in 1995.

Situational context

The mention of the town name and its river in the line above indirectly reveals the site as an attraction for previous monarchs and also complements the autocratic leadership of the Alaafin of Oyo then. The above excerpt proves the monarch had a firm grip on conquered colonies.

Agodongbo

"Oni ara Agodongbo pe won o le lo oko"
(He prohibited the people of Agodongbo from visiting their farms)

Historical context

The name Agodongbo in Yoruba denotes 'a young colt'. Atiba as prince of Oyo had many farms outside the city of Oyo close to Aawe, Akinmoorin and Ilora. And strategically, he positioned them in Agodongbo, Aiyetoro, Abojupa and Agogo to gain control over the inhabitants. There were also Alaafin's farms in Owinni and Aawon which were within the city wall. By this means, a great deal of food and

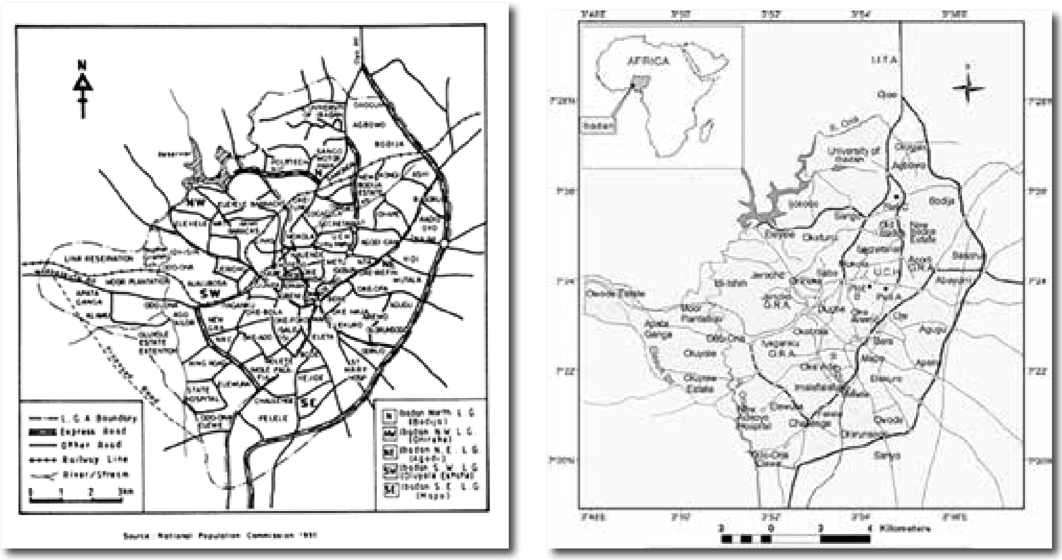

Fig. 7 - Maps of the City of Ibadan.
Source: https://books.openedition.org/ifra/docannexe/image/716/img-1.jpg.

cash crops were produced in the present Oyo. The Ilari ('royal messengers/guards') and chiefs acted as concierges of the farms and generated a lot of revenue for the monarch (Afodunrinbi, Folorunsho and Babayemi, Samuel, 1991, p. 117). For instance, Aawe was controlled by the Bashorun ('prime minister/war chief') while the Ilari stationed at each of the other gates acted as toll collectors from farmers and traders entering the town. They built houses beside the gates, cultivated the land and also organized labourers to work on the farmlands.

Situational context

The above excerpt indicates Alaafin as a sovereign ruler over the entire kingdom and his preference for any land was respected. It also indicates that the inhabitants of the town were possibly, labourers on the royal farms.

Ibadan

"Baba Gbadegesin, al'oko lona re Ibadan"
(The father to Gbadegesin who owns the farm along the route to Ibadan)

Historical context

Ibadan, the capital of the current Oyo State in Nigeria, is no doubt reputed to be the largest indigenous city in Africa, South of the Sahara. It was established by Lagelu, an Ife Prince and warrior as Eba-odan or Eba'dan (a town beneath the forest and savannah) and was popularized by Bashorun Oluyole. The city has enjoyed some attention from literary critics (e.g. Clark, 1961; Soyinka, 1994), as well as political and historical analysts (e.g. Ladigbolu, 1999). In fact, during the Oyo empire, Ibadan was reputed as the military signpost for the Alaafin and thus produced warriors like Basorun Oluyole and Basorun Ogunmola among others who stopped invaders from penetrating further into the heart of the Yoruba land apart from Ilorin. That is why a verse in Ibadan's panegyric is designed in praise of these war veterans as:

Ibadan ile Oluyole, Ibadan n m'eru, eru e n me'ru; Eegun ko de'Jebu ri, Iba l'o meegun wo'lee Remo.

(Ibadan the house of Oluyole, Ibadan is taking people captive, its slaves are also captivating people; No masquerade ever stepped on Ijebu land, it was Bashorun Oluyole that took masquerade to Remo land. And another verse says, Ibadan, ile Ogunmola Olodogbo keri l'ogun, obo sokoto kembe re'bi ija.

(Ibadan the house of Ogunmola the great warlord, who wears big pajamas to the war front).

Situational context

It was customary for Oyo monarchs to keep farms in ally states and conquered colonies to exert influence and keep vigilance on their affairs. The above excerpt indicates that Bello Gbadegesin Oladigbolu I/II, a former Alaafin, utilized Ibadan for agricultural purposes and also provides a pointer to the fertility of its soil.

Ikar

"Omo'ba Adewale to gudu n'Ikare"

(Prince of Adewale, the fearless and dreaded within and beyond the entire Ikare town)

Historical context

Ikare-Akoko (Ikare for short) is a city in the North East Area of Ondo State, Nigeria. The hilly town got its name from two strange signs encountered by a crowned prince/progenitor on his sojourn to institute his kingdom as predicted by the oracle. The first was finding Omi Atan, 'a brook that never dries' located

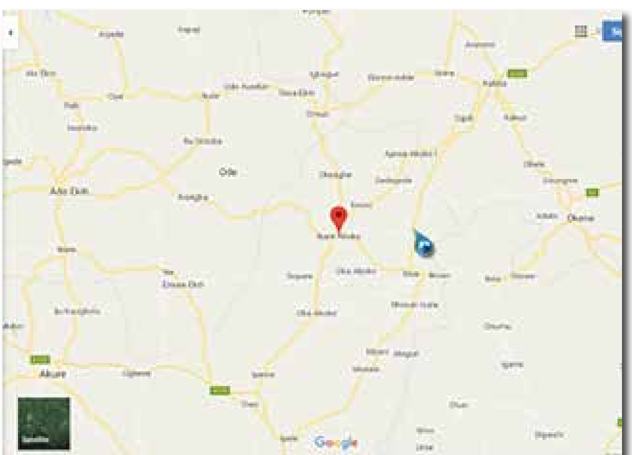

Fig. 8 - Google Map showing Ikare-Akoko Town.

on a hill and second, was Igi Akere, 'a mystical tree' upon which he discovers some weaver birds. The spot, Oke Iba ('the hill over there') was where Agba Ode, a grandchild to Oduduwa eventually situated his palace when he migrated out of Ile-Ife ('cradle town' for all Yoruba race in Nigeria). The topography of the town is referenced in the panegyric of the town, Ikare Omo Oloke Meji tako tabo, that is, 'Ikare, people of the masculine and feminine twin hills'.

Situational context

Historically, the influence of Alaafin spread beyond Oyo into Ondo town where Ikare is located and as such, he was revered there as indicated in the above excerpt.

Oke Agunpopo

"Ohun naa lo gbe lo s'ile s'oke Agunpopo"

(He defiantly left to situate his house on the hill of Agunpopo)

Historical context

One of the major towns in the present Oyo is this hilly site. Until now, it still retains its original name prior to its relocation to the present site from Oyo-Ile. The town name originates from two words, Agun which implies 'to grind' and Popo, is onomatopoeic sound produced from pounding a substance in a mortar with pestle. To this respect, the progenitor was charged to prepare by pounding traditional medicine/concoction for Alaafin Atiba. He was his Alagunmu 'potion preparer' for the monarch and was part of his entourage to the present city.

Situational context

In the context of the above excerpt, the monarch is said to have moved his palace to the summit of the town most likely, to fortify himself in view of the traditional medicine that the town is renowned for or to show his relationship with its progenitor.

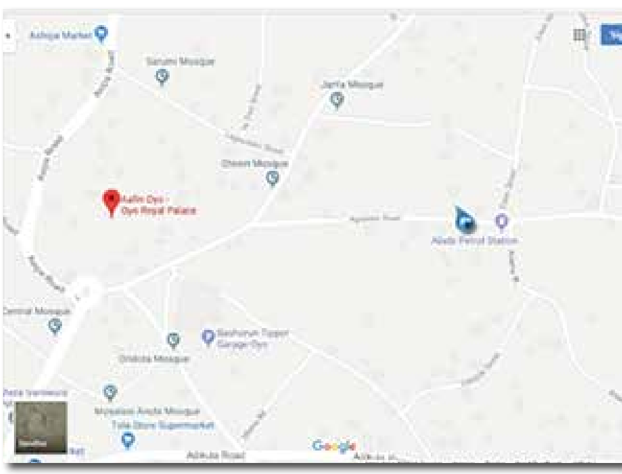

Fig. 9 - Google Map showing Agunpopo Road.

Fig. 10 Google Map showing Akesan Market.

Ajagase
"Ajagase won o gbodo lodo"
(He ordered the people of Ajagese not to visit the river)

Historical context

Ajaga-Ase also known as Ajagase is currently situated within Iwo, Osun State, Nigeria. The town like Agodongbo must have been part of the domains of the Oyo monarch due to its closeness to Aawe which was among the towns that housed the royal farmstead.

Situational context

The town in the above excerpt has lush pasture and rivers but most importantly, the Alaafin denies its inhabitants access to its major source of livelihood.

Fig. 11 - Architectural Survey showing Agunpopo, Apaara, Akesan Market and Alaafin's Palace. Source: Goddard S., Ago That Became Oyo: An Essay in Yoruba Historical Geography, "The Geographical Journal", Vol. 137, No. 2 (Jun., 1971), p. 210.

Bara

"Bìrìn esin tìkò tìkò lona Bàrà"

(He rides his horse reluctantly to Bara)

Historical context

The burial place of the Alaafin of Oyo, known as the Bara, lies about 1,609 kilometres south-south-west of the Afin, or palace, at New Oyo in the Bashorun's quarter of the town. Here are buried five of the six Alaafin who have reigned since the inception of the capital by Atiba in the 1830's. It is sometimes claimed that the last Alaafin of Oyo-Ile (Old Oyo), Oluewu, who died in battle with, or as a captive of the Ilorin together with Alaafin Adeyemi Adeniran, who was deposed in 1956, were ineligible for burial within the Bara since they did not die as monarchs, and the former was therefore interred beneath the floor of his house.

The Bara consists of a walled area enclosing three separate buildings which covered the tombs of the Alaafin and also provide accommodation for their surviving wives (Smith, 1965, p. 415). Any monarch who missed being buried at the royal mausoleum forfeits befitting burial rites for departed Oyo monarchs. The walled mausoleum is similar to the Egyptian Pyramid (Abimbola 1964, Agbaje-Williams 1989, Aremu 1997, Babayemi 1980, Morton-Williams 1967).

Situational context

The subject of death inevitably is accompanied with dread and horror and thus, the horse or its rider metaphorically, the Alaafin though, depicted as a warlord through the imagery of a horse but he is seen to hesitate his death which is depicted as the royal mausoleum.

Akesan

"Omo esu odara Akesan ti 'Lakunle k'obi"

(Son of Esu at Akesan and firstborn of 'Lakunle)

Cultural context

One of the ancient markets in Oyo town/city is this locale. It was originally based in Oyo-Ile and renowned among indigenes for its expanding economy. The town was thus named due to rituals that went into resettling it at the present site from Ago d'Oyo. Before its establishment, there was scarcely any patronage of the market, therefore, Alaafin Abiodun Atiba employed spiritual fortification to enhance and prevent extinction of the market. Part of the rituals included the distribution of nine portions of sacrifices each at respective vantage points in the market site. This action gave rise to the market/town name considering nine different sacrifices (aajo orisi risi ona mesan mesan) in its creation. Mesan in Yoruba is number 'nine'.

Also, Esu is a deity worshipped in Oyo with its primal shrine at the market. The Yoruba people believe that the deity must first be appeased to achieve progress, being the deputy and 'police/law enforcer' for Edumare 'the supreme god'. Esu also known as Elegbara thus demands reverence early each morning. The deity is

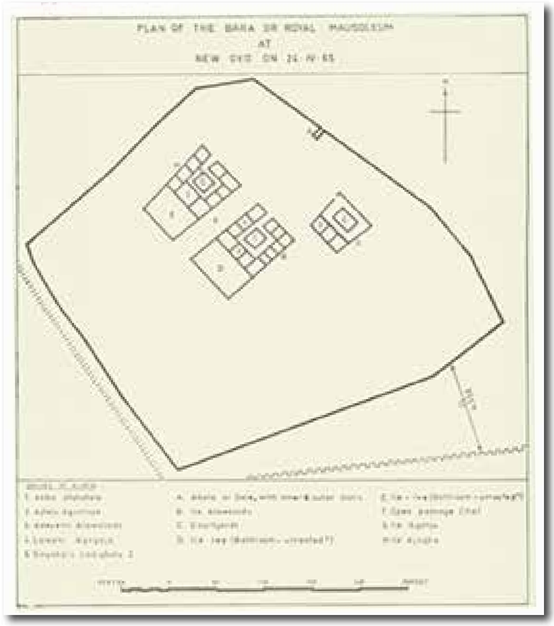

Fig. 12 - Architectural plan of Bara or Royal Mausoleum.
Source: Smith R., The Bara or Royal Mausoleum at New Oyo,
"Journal of African History", Vol., 1. (1965), p. 419.

worshipped at the entrance, junctures, marketplaces within a town, and also entry to houses and any other preferred spots by its priests.

These locations were chosen because of the trickster nature and malevolence of the deity. By appeasing the deity in a marketplace, it would bring development to its businesses and prevent calamities. During primordial times, he was appeased with the sacrifice of a stranger but due to civilization, goat or sheep are used as alternatives for a living being. The deity does not accept bones or flesh instead, it prefers spilled blood on its shrine.

Situational context

In the excerpt above, the monarch is linked with Olakunle, short as 'Lakunle, his forbear, but much more, he is also the son of Esu. And based on traits of the deity, he is also perceived as being ruthless, pitiless and vehement. This is to evoke fear and terror for the Alaafin eulogized as, Iku Baba Yeye (the 'esteemed father and death incarnate').

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A gazetteer in the 2nd century: Claudius Ptolemy's *Geographia*

Marcos Pavo Lopez*

Abstract

Ptolemy's Geographia (2nd century) is the most influential work in the history of cartography. Not only did it set the basis for scientific cartography by defining cartographic projections and coordinates as the only means to draw rigorous maps, but also constituted the "official" image of the known world in scholarly circles until the 16th century. Although it has already drawn the attention of scholars in several disciplines (cartography, geography, history, arts, etc.), Geographia features an aspect not always properly highlighted: it is the oldest extant geographical gazetteer in a modern sense, that is, a list of place names with a set of geographical coordinates longitude and latitude. Given the great number of place names contained (some 8,000), it was also considered a priceless geographical guide to the ancient world at the beginning of the Renaissance and its legacy is fundamental in understanding the Age of Discoveries.

Keywords: *Ptolemy's gazetteer, Hellenic ancient toponyms.*

Claudius Ptolemy

Claudius Ptolemy (c. 100 - c. 170) is a fundamental character (if not the most important) in the history of cartography. Mathematician, astronomer and geographer, he was better known before the Renaissance for his astronomical treatise, the Almagest, in which he proposed a geocentric astronomical model, that is, a series of concentric spheres revolving around the Earth, placed in the centre (Fig. 1). This model was accepted until 1543, when the work of Nicolaus Copernicus, *De revolutionibus orbium coelestium* (On the Revolutions of the Heavenly Spheres), which established a heliocentric astronomical system, was published in Nuremberg.

Ptolemy was born in Ptolemais, on the west bank of the Nile River, but was active in Alexandria (Fig. 2) where he had access to the documents of the famous Library. Thus, he was a Greco-Egyptian in terms of culture and birthplace but also lived under the rule and administration of the Roman Empire.

He was a collector of geographic information of the *Oikoumene* (the known or inhabited World) and his geographical work is mainly based on that of his predecessor, Marinus of Tyre, as he repeatedly acknowledges him in his *Geographia*, although often criticizing some of his proposals and measurements. In fact, all we know about Marinus and his importance in the history of cartography is because of Ptolemy's critical commentaries, as no work of Marinus appears to be preserved today.

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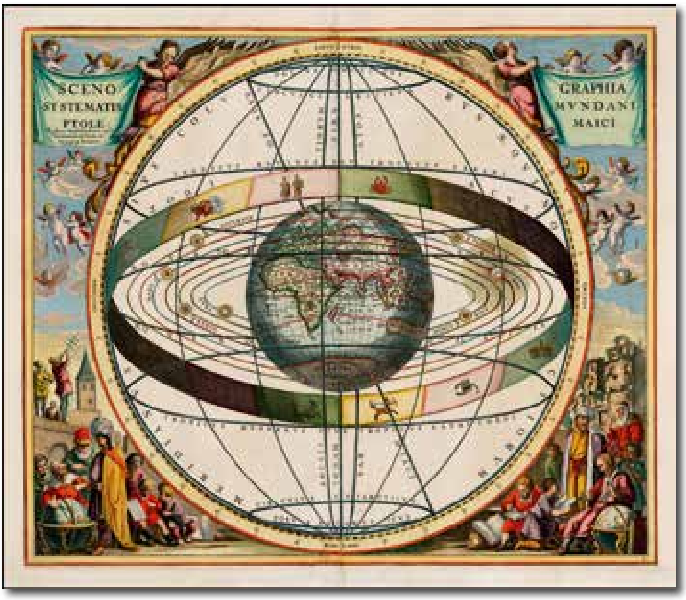

Fig. 1 - The Ptolemaic astronomical model with an updated terrestrial sphere according to the known World in the 17th century. Scenographia Systematis Mundani Ptolemaici Andreas Cellarius, Amsterdam, 1660 (1708).


Fig. 2 - The cities of Alexandria (red) and Ptolemais (blue) on the Descriptio Tertiae Africae Tabulae (third map of Africa, according to Ptolemy's schema). Codex Urbinas Latinus 277. Pietro del Massaio, 1472. Biblioteca Apostolica Vaticana.

Ptolemy's *Geographia* can be considered the starting point of scientific cartography, as from then onwards maps would feature several characteristics that are commonly used nowadays, such as a cartographic projection, a network of meridians and parallels, the orientation to the north, the origin of latitudes from the equator and situating any point by its geographical coordinates longitude and latitude, among others.

The Geographia

In spite of its title, the *Geographia*, or more strictly, *Geographiké Hyphégesis* [“*Guide to Geography*”], is mainly a geodesy and cartography treatise although neither word yet existed in Ptolemy’s days. Detailed literal descriptions of peoples, customs, resources, etc., frequently used by other ancient geographers, such as Strabo (1st century), are replaced by a concise list of geographical features: cities, administrative boundaries, rivers, capes, mountains, names of peoples, etc., accompanied with few further explanations other than their coordinates (Dilke, 1987).

Due to the fact that there is not any of Ptolemy’s original manuscript extant, it is not possible to know without any doubt how the original text was or even if Ptolemy’s text included any maps or only gave instructions to draw them. The oldest Ptolemaic manuscripts with maps (in Greek) are dated in the late 13th century (Diller, 1940) and have a Byzantine origin. Figure 3 shows the lineage of Ptolemy’s *Geographia* in earliest manuscripts.

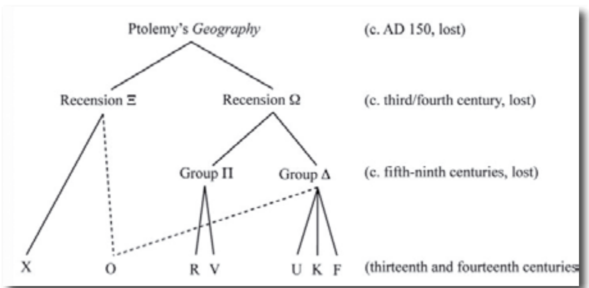

Fig. 3 - The lineage of Ptolemy’s Geographia. (Mittenhuber F. (2010) The Tradition of Texts and Maps in Ptolemy’s Geography. In: Jones A. (eds) Ptolemy in Perspective. Archimedes (New Studies in the History and Philosophy of Science and Technology), vol 23. Springer, Dordrecht)

The *Geographia* “disappeared” and became unknown to Western Europe after the fall of the Roman Empire, at the beginning of the Middle Ages. Fortunately, it was preserved in the Byzantine Empire and the Muslim culture. For some 1200 years it remained out of the body of geographical knowledge in Europe, just as maps gave a long step backwards from scientific cartography to medieval schematic representations of the World, such as the so called T-O maps, because of the general shape of the “map”. The T-O model was introduced by St. Isidore of Seville in his 7th century Etymologiae (Fig. 4).

Ptolemy’s *Geographia* was brought again to light by the Byzantine monk Maximus Planudes (1260-1310), who was actively searching for a manuscript copy of the work. All extant manuscripts in Greek would be based on Planudes codex (Dilke, 1987).

However, the turning point for the future fame and diffusion of Ptolemy’s work was its translation into Latin, begun by the Byzantine scholar Manuel Chrysoloras, who moved to Florence attracted by the growing interest of the humanists in the ancient Greek World. Chrysoloras brought with him a codex in Greek (probably the *Urbinas Graecus* 82) (Gautier Dalkhé, 2007, pp. 287-290), also considered the oldest

Ptolemaic manuscript with maps (see Fig. 5). But unfortunately he died before completing the translation. His disciple, Jacopo Angeli from Scarperia (Weiss, 1997, pp. 255-277) finished the work between 1406 and 1409, depending on the source. But Angeli's translation was far from reliable because he lacked deep knowledge both in the Greek language and in the scientific content of the text. Moreover, he changed the original name for *Cosmographia*, explaining that "we have translated it [*Geographia*] as *Cosmographia*, also a Greek word but so used by we, the Latin, that we consider it as it was ours" (Navarro Brotóns, 1983). Thus, *Cosmographia* became the name of the text for almost every manuscript codex of the 15th century and even for some printed editions. Anyway, and in spite of the average translation, the *Cosmographia* was enthusiastically received, first by Florentine humanists and later by the rest of their European colleagues. It is important to highlight that, for several decades, the main interest in Ptolemy's text was not its scientific, mathematical or cartographic aspect but the list of ancient names, considered very useful to locate the places mentioned by other classical authors.

Fig. 4 - The first printed "map", a T-O map from Günther Zainer's edition of the Etymologiae Augsburg, 1472.

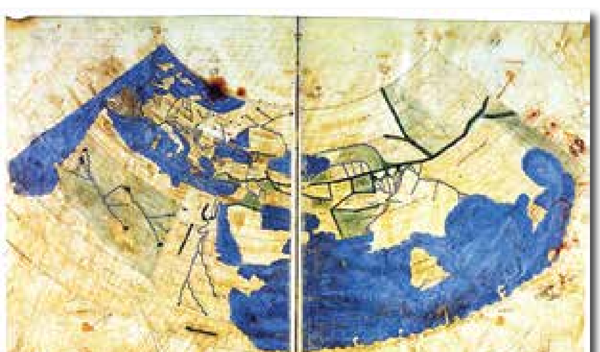

Fig. 5 - Ptolemaic world map in first (conical) projection. Codex Urbinas Graecus 82. Biblioteca Apostolica Vaticana (ca. 1300). Probably the oldest manuscript with maps and the one brought by Chrysoloras to Florence.

Structure and contents of the Geographia

In modern terms, the *Geographia* could be described as a treaty of geography, cartography and geodesy (although the last two words did not exist yet in the 2nd century AD.). It is divided into eight books plus one appendix with maps (tabulae) although, as we have previously seen, there is still a debate on whether or not Ptolemy's original work featured maps. Leaving aside the discussion on the existence of prototype maps, the so called Ptolemaic *canon* (or model) consists of 26 regional maps plus one map of the *Oikoumene* or known World (Fig. 6). The 26 regional maps are dedicated to the three ancient continents in this order: Europe (10 maps), Africa (4 maps) and Asia (12 maps), which would remain as the only ones until the discovery of the fourth part of the World: America.

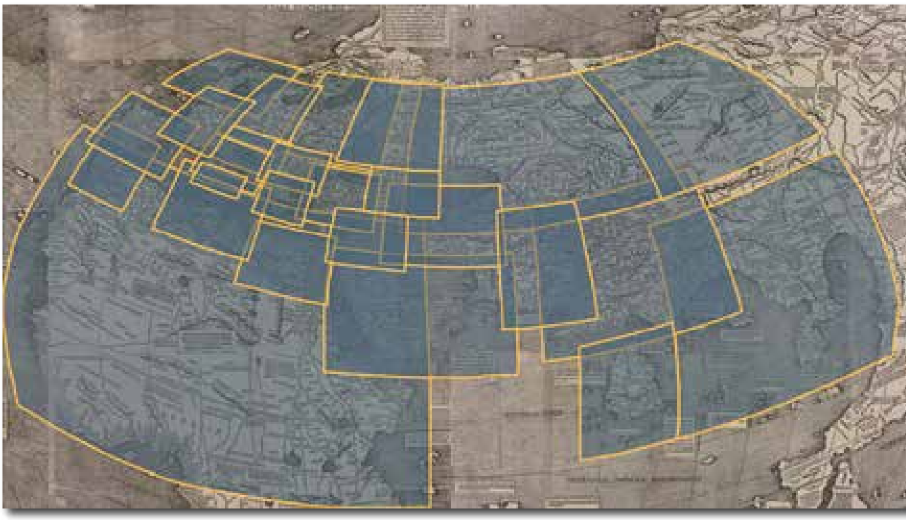

Fig. 6 - The 26 regional maps, shown on Martin Waldseemüller's Universalis Cosmographia world map (1507). Source: A land beyond the stars. Museo Galileo, 2016.

The First Book is dedicated to geographic, geodetic and cartographic matters.

From the Second to the Seventh Book, the *Geographia* turns into an 8,000 toponyms gazetteer in a modern sense for the first time in history, that is: a list of place names, each featuring a pair of coordinates longitude and latitude measured in degrees and fractions of degree. Without going deep into the technical part of the First Book, let us see some very eloquent paragraphs that illustrate our topic:

In the First Book, chapter XVIII, Ptolemy states that "making new maps from previous models usually renders, little by little, a dissimilar final result" (Pérez Gonzáles, 2010, pp. 45-46). Here we can see the point of view of someone used to working with manuscripts, someone who has probably seen the differences between an original and later hand written copies. A striking example of this "dissimilar result" can be observed if we compare the evolution of *Beatus of Liébana's Mappamundi* through its different manuscripts, where even the shape of the world changes: circular, oval or rectangular (Fig. 7).

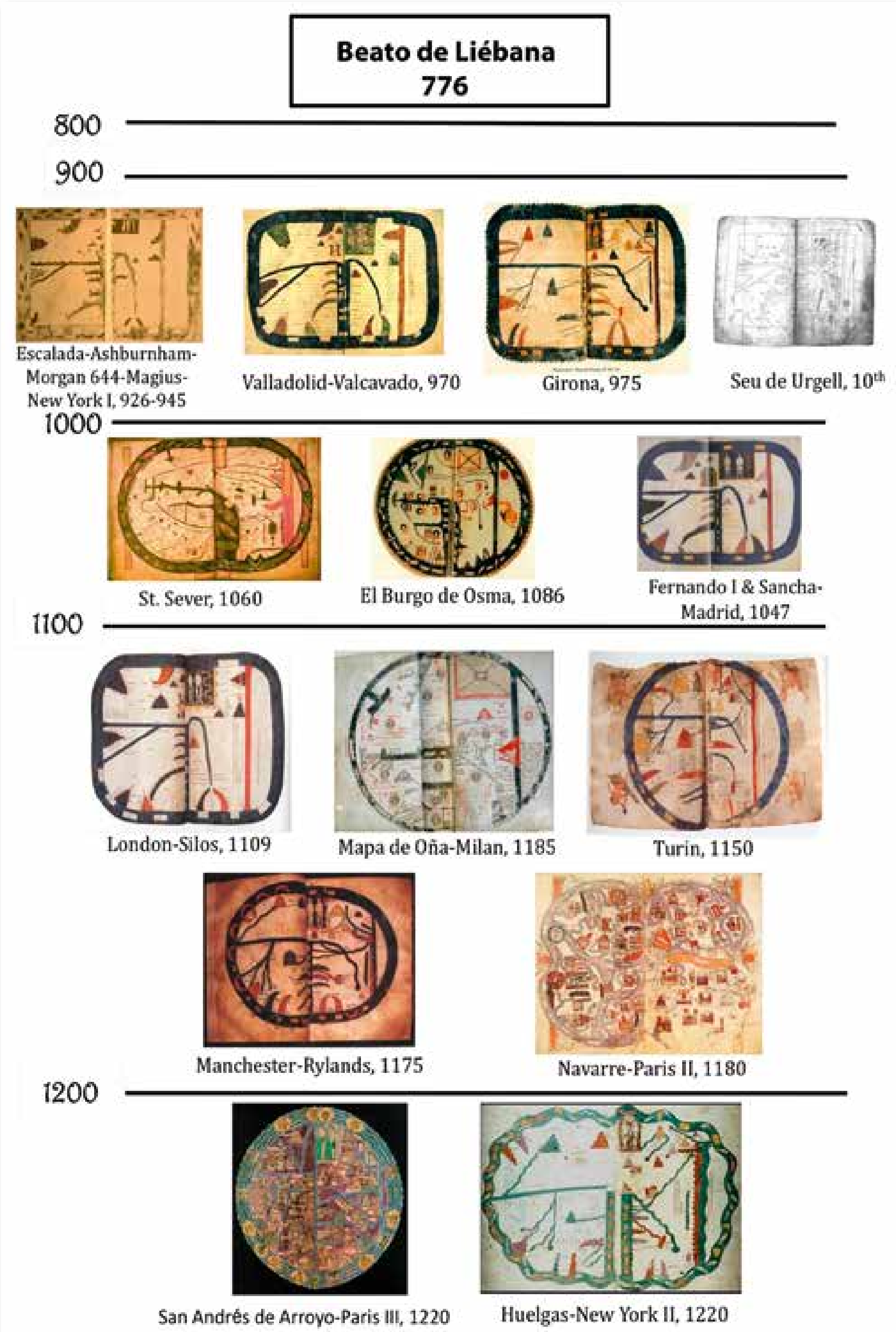

Fig. 7 - Evolution of Beatus of Liébana's mappamundi in different manuscripts.
Source: Jim Siebold, (2015), www.cartographic-images.net #207 The Beatus Mappamundi.

In the same chapter Ptolemy criticizes the way Marinus used different lists of places for longitudes and latitudes, not in pairs of coordinates for every point but listed in disorder throughout the text: “it is necessary to have the longitude and latitude of every point together, in order to place them correctly on the map”.

From these two quotes we can extract one of the main purposes of the Alexandrian: to give the instructions (the cartographic projection) and data (the list of places with coordinates) that any cartographer would need to make a map from the original information, not from a copy, so that the probability of corruption from one copy to the following is largely reduced, if not eliminated by taking the information from a reliable original text, less prone to degenerate than a drawing.

According to this, the first step in order to make reliable copies is to have the set of instructions for representing the surface of the Earth (or a part of it) on a plane. In other words: a cartographic projection. The title of chapter XXIV of the First Book is: “A method for representing the Earth surface or a part of it onto a plane corresponding to the sphere”. In this chapter Ptolemy explains two different cartographic projections (not very originally known as the “first projection” and “second projection”) with the network of meridians and parallels (Navarro Brotóns, 1983) (Fig. 8). The second step to make the maps would be to bring the points with coordinates onto the plane. It can be considered the first attempt ever to draw a scaled map from coordinates using a reference system and a map projection: the birth of “modern” cartography. We know mainly from Ptolemy himself and from other ancient geographers such as Strabo, that Hipparchus and Marinus had already used lists of places with coordinates (longitude and latitude, too), and even a rectangular cartographic projection in the case of Marinus, now lost.

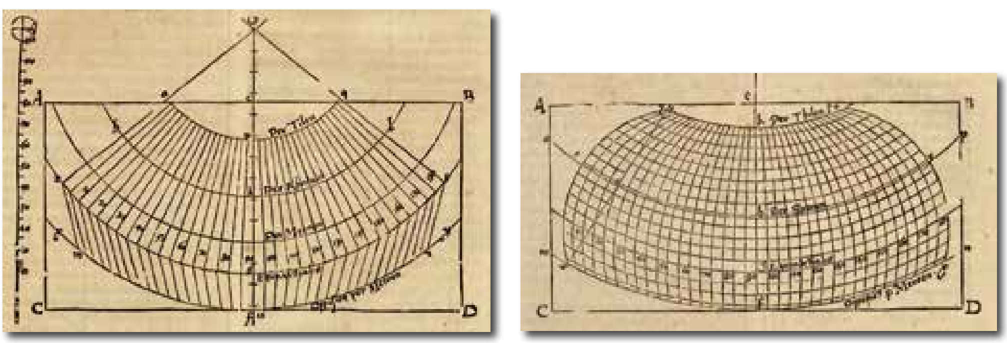

Fig. 8 - First and second projection, from Lyon edition (1535) of Ptolemy’s Geographia. Source: Biblioteca Digital Hispánica – Biblioteca Nacional de España.

As we can see in figure 9, if someone compares different manuscript or printed editions of the *Geographia* it can be noticed that all of the corresponding maps have almost the same appearance, just as the Alexandrian wanted.

Fig. 9 - Four different versions of the Ptolemaic map of Hispania (Tabula II Europae). From left to right and top to bottom: (facsimile) Nicolaus Germanus (c. 1458), Waldseemüller (1513), Ruscelli (1561) and Mercator (1578, re-edition of 1698). Instituto Geográfico Nacional (http://www.ign.es/web/catalogo-cartoteca/).

Nomenclator Ptolemaicus: the gazetteer

The list of georeferenced place names extends from the Second to the Seventh Book, and contains approximately 8,000 toponyms corresponding to different kinds of geographical features like towns, rivers, islands, archipelagos, coastal points (capes, river mouths, etc.), ports, forests, mountains. The table or list has three columns: the first one for the place name, the second and third for the coordinates longitude and latitude, in degrees and fractions of a degree. The origin of longitudes is in the Fortunate Islands (the Canary Islands) meridian and the origin of latitudes is the equator.

Although we know about the existence of other ancient gazetteers (those of Hipparchus and Marinus) the references to them are only indirect (one of the sources being Ptolemy) and Ptolemy's *Geographia* meant an enormous improvement over their predecessors, mainly because of the huge number of georeferenced points. Moreover, Ptolemy's work is a systematic effort to cover all the known World and it is the oldest extant geographic gazetteer in a modern sense. One of the reasons why the *Geographia* was received with such enthusiasm and respect was probably the display in an ordered and "scientific" appearance: a list of places with coordinates (numbers) gave the impression of accuracy and *auctoritas* to Renaissance humanists.

Focusing on Hispania (the Iberian Peninsula), Ptolemy explains that "Hispania, called Iberia by the Greeks, is divided into three provinces: Baetica, Lusitania and Tarraconensis", and then writes down the list of some 500 names with coordinates (Fig. 10). The figure may seem not too high but, when looking at the map of Hispania (*Tabula Secunda Europae*) one can notice that there is not too much room left for further information. Similar examples can be found in other maps, such as those of Italy, Greece, or France.

Fig. 10 - The gazetteer of Ispania (sic) with geographical names (in both Latin and Greek) and their coordinates longitude and latitude in degrees. Strasbourg edition, Waldseemüller, 1513. (Biblioteca Complutense. Universidad Complutense de Madrid).

Conclusions

Leaving apart the lack of accuracy of the Ptolemaic coordinates, which were not generally based on astronomical measurements (as he recommended), but mainly relied on second hand descriptions, the *Geographia* is an amazing and pioneering attempt to make a systematic survey of the known World, bringing geographical data from the sphere to the plane by using a cartographic projection. The basis of modern cartography remains essentially the same as the system established by Ptolemy in the 2nd century. The *Geographia* is also a priceless source of geographical names in the ancient World and provided a perfect frame to locate places mentioned by classical authors, as Renaissance humanists clearly noticed more than six centuries ago. The multiple aspects of this work make it so attractive in many disciplines such as geography, cartography, history or arts, and the *Geographia* will undoubtedly remain an interesting topic for future generations, as it has been in the past.

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The Greek ethonym Romanoi
in the *De Administrando Imperio of Constantine Porphyrogenitus*

Marco Martin*

Abstract

The Greek ethonym Romanoi, unique of its kind with the meaning of Latin settlers of Dalmatia is quoted in the Administrando Imperio of Constantine Porphyrogenitus many times and it is used in a very different way compared to the name Romaioi, used, as well known, for all the subjects of the whole Byzantine Empire. The Romanoi are the colonists sent by Diocletian from Rome to Dalmatia and this Latin identity is confirmed in the history until the Venetian domination and the last years of Austro-Hungarian administration of Dalmatian coast.

So examples of this Italo-Venetian culture are the observations of German historian Theodor Mommsen and Italian scholar of Linguistic Matteo Bartoli between the 19th and the 20th century. It is also interesting to point out that Yugoslavian Nobel Prize 1961 Ivo Andrić in his famous novel The Most on the Drina (Na Drini Ćuprija) speaks about Dalmatian stone-cutters called by musliman people of Bosnia by the old name of Roman Masters.

Keywords: *Romaioi, Romanoi, Dalmatia, Byzantium, Diocletian, Constantine Porphyrogenitus.*

This survey aims at providing a reflection on the ethnonym, Romanos, unique in its specific meaning of Latin settlers of Dalmatia, testified in various parts of the treaty *De Administrando Imperio by Byzantine Emperor Constantine VII Porphyrogenitus*. Sophocles's lexicon is extremely eloquent: "Romanos, ou, o, Romaus, applied to the colonists sent by Diocletian from Rome to Dalmatia. Porph. Adm. 125 (Sophocles, 1992, p. 974). This is our starting point. De Administrando Imperio is the fortunate combination of two works written by the Emperor: one concerning the populations at the borders of the Empire and the other, the Perì Thematon (Regarding the provinces), dealing with the events that had just taken place in the provincial territories. The work took on a remarkable importance as the authoritative source for Byzantine history and of realities and events of early Europe: the arrival of Serbs and Croatians in the Balkans in the 7th century, the Kievan Rus, the Great Moravia, the Varyags, the relationships between Byzantium and Arabs, Armenians, Longobards and the power of the Khanate of Khazari.

After introducing the history of the first urban settlements of Venice (*De Adm.*, 28=123Be-125Be), a long analysis relative to Dalmatia (De Adm., 29=126Be-140Be) starts, where the term Romanoi appears seven times in the beginning as well as in the subsequent part in connection with Emperor Diocletian that,

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coming from the Illyrian region, namely from Salona, capital city of Dalmatia, personally coordinated the migration of many Roman citizens with their families to the Dalmatian coast. For this reason they took the name of Romans. Diocletian attended to the building of his famous palace that would, later, become the urban fulcrum of the settlement of Split populating it with these Romanoi settlers who, Porphyrogenitus affirms, now extended up to his own time (10th century) from the coast of Dalmatia towards the Danube at the border with populations called Sclavonic (Slavic nations).

The following paragraphs deal with the history of Dalmatia (De Adm., 30=141Be-147Be) and of the Croatian population (*De Adm*., 31=148Be-152Be). Therefore, they also include Serbs, Pagan, Pechenegs and, finally, the genealogy of the Turkish nation. As it is known, the coast towns of Dalmatia (first Byzantine Arcontia, then Thema after the Justinian restoration), with a consolidated Latin municipal culture and tradition, were left to Byzantium following the Treaty of Aachen in 812, after the occupation of Dalmatia by Slavic populations and the fall of Salona. Such Treaty or Peace of Aachen implied that Charles the Great gave up his sovereignty, though never officially acquired, on the Byzantine Venice and on Dalmatia, and the recognition of his own authority by the Byzantine Emperor Michael I (811-813) who still maintains, however, the traditional title of Emperor of Romans.

Croatian monarchs, now settled in the Dalmatian interior, show an interesting position, wavering between the vassalage to the two Empires, the Franc and Byzantine ones; they tried to consolidate their power in Croatia to later spread it to the coastal than insular Dalmatian towns. Roman citizens facing the Slavic and Avar advance had retreated within the coastal towns – kastra – where they had been living for centuries and, as testified by Porphyrogenitus, such cities were: Dekatera (Kotor), Raousion (Dubrovnik), Aspalathon (Split), Tetraghourin (Trogir), Diadora-Iader (Zadar), Arbe (Rab), Vekla (Krk), Opsara (Osor) and Loumbrikaton (Vrgada). According to Constantine Porphyrogenitus (*De Adm*., 128 and 148-150) Emperor Heraclius had managed to re-conquer for the Roman Empire Dalmatia and its inland territories that had been occupied by the Avar population and to defend against them he called Croatians and Serbs so they could settle in those areas. In exchange, he obtained their recognition of the sovereignty of the Imperial Government. Later, Michael II (820-829) agreed that Croatians and Serbs became independent de facto provided that the same happened also for the Roman towns on the Illyrian coast and the offshore islands.

In the whole territory of the Byzantine Empire we know of only fourteen town-states with a very flexible and autonomous statute as well as with important fiscal exemptions. Nine of them were Dalmatian cities: those mentioned in *De Administrando imperio* (the others were Khersòn, a colony of Eraclea Pontica, Venice, Amalfi, Naples and Gaeta). Their stories were extremely different and testify to the complexity of the Greek-Roman urban civilization of the Dalmatian coast. Diadora (Zara), Tetraghourin (Trogir), Roman Tragurium and Cattaro date back to ancient Adriatic Greek settlements. Arbe, Krk and Osor were islands far from the coast and protected by the Kvarner Gulf. Originally Split was no more than the marvellous palace ordered by Diocletian as it became his residence after the abdication and the area of the palace was occupied by Roman refugees coming from the nearby Salona ravaged by Avars and Slavs at the beginning of the 7th century. Dubrovnik had been founded, in its turn, by refugees coming from the Dalmatian towns of Epidaurus and Salona.

In the text by Emperor Constantine Porphyrogenitus the intention is evident of precisely differentiating the specific term Romanoi from the most common and well known Romaioi used to define the subjects of the whole Byzantine territory Romània, that is the Roman Empire in full and then the Byzantine one, at least based on the western meaning and as a historical consequence of the citizenship of all the subjects of the Empire following the Constitutio Antoniniana of 212 BC. Then, Romanoi is used in an ethnic and Latin sense and Romaioi has a general and universal meaning of a Greek-speaking Empire with a Roman tradition as the traditional Byzantine honorific formula for the Emperor Basileus ton Romaion officially testifies.

The long Greek and Roman history of the Dalmatian coast is well known. Dalmatia presents itself as the Adriatic coastal territory, part of the ancient and wider Balkan Illyrian inhabited by Illyrian Dalmatians. On several occasions Greeks founded prosperous colonies: from the 7th to the 6th century BC, they established the towns of Corinthian origin, Apollonia and Epidamnos. The latter then became the Italic colony of Dyrrachion, now Durres, both in the Albanian territory, the ancient southern Illyria; in the 4th century BC they founded the ports of Epidaurum (Ancient Dubrovnik, now Cavtat), Narona, Salona and Diadora-Iader (Zara), as well as the colonies of Issa (Lissa), Pharos (Lesina/Hvar) and Korkyra or Kerkyra Melaina, Corcyra Nigra, that is Korčula.

Like in other Mediterranean territories, the Greek-Illyrian relationship saw, from the 2nd century BC, an increasingly heavy Roman influence that had started with the military expeditions carried out in 229 and 228 BC against the pirate raids of the Illyrian Queen Teuta against the above mentioned Greek colonies, as stated by Polybius (*Histories*, II 2-12) and Appianus (*Illyriká* 7-9). From the second half of the 2nd century BC, Roman consular armies systematically occupied Dalmatian territories founding numerous colonies and conquering Salona with the expedition of Caecilius Maetellus. The Illyrian population opposed a strong resistance that was crushed only by the military intervention of Caesar, engaged in the phases of the civil war against Pompeius (*Bellum Civile*, III 9, 28, 29), and definitively by Augustus in 23 BC, after General Asinius Pollio in 39 BC, as also reported by Horatius (*Odes*, II 1,13-16 : "Insigne maestis praesidium reis/ et consulenti, Pollio curiae,/ cui laurus aeternos honores/ Delmatico peperit triumpho") had crushed a dangerous rebellion. With Augustus, founder of the Empire, Dalmatia became an integral part of the Roman province of Illyrian territory, widely described among other authors, for example, by Strabo (*Geography*, VII 315).

Since then Dalmatia came to be a strong Latin bastion in the Balkans, strengthened by Italic municipal regulations of the colonizers' settlements, favoured by Augustan politics. Salona, then Colonia Martia Iulia Salonae, became the regional capital and operational fulcrum of the Roman administration. As far back as the 2nd century AD the town had a population of 60,000 inhabitants. That is where Caius Aurelius Valerius Diocletianus came from; he ordered the building of the Imperial palace on the bay of the ancient Greek and, later, Roman town of Aspalathos-Spalatum.

The palace built in only ten years, from 295 to 305, by a huge number of workers, technicians and architects, mainly Greek, was the heart of the urban development of medieval and modern Split and its building took place in parallel to the expansion of Salona that soon became the centre of a powerful Latin ecclesiastical organization, testified by numerous mosaic Basilicas. However, a sudden and dramatic halt occurred with the Avar-Slavic advance that hit the Balkans and Dalmatia during the first twenty years of the 7th century. Since then, with the destruction of Salona and of numerous other Roman towns, a decisive contrast between the Slavic and Roman worlds started. The displaced population of Salona found a refuge within the walls of the palace of Diocletian, thus becoming the birth certificate of Split, while the fugitives of Epidaurum founded the primitive core of the town of Dubrovnik.

Despite the Slavic-Avar invasions and the destruction of Salona, the Roman way of life continued in an urban enviroment with Roman municipal legislation and regulations, while the rural areas were gradually occupied by Croatians, Serbs and by Avar-Turanic tribes, akin to Huns. Moreover, in 599, the Church of Ravenna, guardian of the iura of the Church of Salona and administrator of its heritage, sent from Ravenna to Dalmatia priest John who was elected Archbishop of Split and promoted the ecclesiastic reorganization of Salona. With the solemn consecration of the pagan monuments of the palace of Diocletian, that is with the transformation of the Imperial mausoleum into a town cathedral dedicated to Saint Mary and then to the town Patron Doimo (Sveti Duje) and of the Temple of Jove into a baptistery then consecrated to Saint John, the Roman continuity complemented the Christian renaissance. We should observe that Venice, born from the exodus of Roman populations from the mainland facing the advance of Longobards and that such a great part it would have in the history of Dalmatia, and the town of Split are almost contemporary in their foundation (*De Adm*., 28).

Historian Theodor Mommsen could write in 1885 about the Italic settlements of the Adriatic eastern coast in the late republican age (2nd-1st century BC): "The Dalmatia coasts and isles had, as much as possible, an Italic municipal regulation (the inhospitable part north of Iader was necessarily left behind) and soon on the whole coast they spoke Latin, just like nowadays they speak the Venetian dialect" (Mommsen, 1884, p. 225). And also Sigmund Freud, coming back to Vienna after a stay in Dubrovnik, reports a dream where he spoke Italian, explaining this fact from the habit he had of hearing and using such language in his journeys in Dalmatia. And, as for the Latin and Roman identity of the Dalmatian coast we should remember the testimony of the historical presence of the Dalmatian language (see the reference study of Linguist Matteo Bartoli "Das Dalmatische", published in Vienna in 1906) that, using the words of the glottologist Carlo Tagliavini, took on a first rank linguistic dignity: "The name Dalmatian indicates the pre-Venetian neo-Latin language of Dalmatia now extinct, formed by the direct continuation of Latin on the fully Romanized Dalmatian coast. Dante makes no reference to Dalmatian in his *De Vulgari Eloquentia*, though some historians of crusades, travellers, etc. speak, from the 12th century onward, of

Dalmatian "Latin", "romance" or "franc" referring in particular to the city of Zara, Split, Dubrovnik and Bar. For Vekla, Giustiniani (16th century) affirms that: a proper language exists, similar to "calmùn" (Tagliavini, 1931, pp. 243-245).

Finally, an eloquent trace of such Roman identity proving its persisting strength still remained for a long time. In fact, in a scene of the famous novel The bridge over Drina (Na Drini Ćuprija) of the Serbo-Croatian writer Ivo Andrić, who was awarded the Nobel Prize for Literature in 1961, we read that concerning the building of the bridge over the river Drina in the Bosnian town of Višegrad (late 16th century) ordered by the Turk Vizier, the population of Višegrad was obliged to be at the disposal of the Abigada official and of his architect efendija Tosun. The author clearly states how Dalmatian artisans were defined in the variety of nationalities of workers and then to which civilization they were associated by the Muslim population of Bosnia. "For the whole winter the inhabitants watched over the material and the works as if they were an eye of their head. When spring came Abidaga and Tosun efendija reappeared along with Dalmatian masons (in the Serbian text: dalmatinski kamenoresci) that the people called Roman masters (in the text rimski majstori). At the beginning they were thirty led by a certain master Antonije, a christian from Ulcinj" (Andrić, 1945, p. 31). Roman masters, then, coming from that Roman Dalmatia were already described in their cultural peculiarity by Porphyrogenitus in his treaty and still remembered with the same name in contemporary literature.

In short it could be useful to point out that Dimitrakos-Mesiskli, Mega Lexicon tis Ellinikis Glossas, Athens, 1954 does not contain the term Romanos, which is also absent in the Thesaurus Graecae Linguae by Stephanus. Also Du Cange, Glossarium ad Scriptores mediae et infimae Graecitatis, Lugduni, MDCLXXXVIII (Graz, 1958, anastatic reprint). There is no reference to the term in the ancient sources, neither in Stefan from Byzantium, Ethnicá, nor in the Strateghikón by Maurizio nor in the Historia Syntanos by Michele Psello. It is not even quoted in the Oxford Dictionary of Byzantium, New York-Oxford, 1991.

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The 19th century cadastres as a source for historical microtoponymy of the Veneto region. Limits and potentialities of a historical GIS.

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Abstract

This paper examines the cadastre produced in the 19th century in the Venetian territory, as a source for historical toponymy. After the fall of the Venice Republic, the Napoleonic and Austrian administrations produced the first modern, systematic cadastral survey in the Venetian provinces. Completed over about 40 years (1807-1852), this cadastre consists of thousands of documents that are now preserved in the State Archives in Venice. This paper focuses on the maps and the registers compiled in the first phase (1807-1818), containing a huge quantity of microtoponyms collected directly in the field by the cadastre surveyors.

Toponyms recorded in the cadastre have been mapped, using some historical GIS geodatabases for three study areas in the Veneto region. Some of these data will be examined in detail, and compared both with the official toponymy and with some recent local toponymic maps. This comparison confirms the great importance of the 19th century cadastres as a geo-historical source for the Veneto region, highlighting limitations and potentialities in the scientific, economic and social fields.

Keywords: *microtoponymy, cadastres, historical GIS, minority language, Veneto region.*

Introduction: toponymy, cadastres, historical GIS

In the last few decades, toponyms have been recognized as elements of intangible cultural heritage (Cassi, 1998; Aversano, 2007; Jordan et al., 2009). Their conservation is important not only for scientific purposes, but also for social and cultural reasons (Jordan, 2016). UNGEGN and UNESCO often underlined the importance of preservation of minority and indigenous toponymy (Kerfoot, 2016).

Ancient cartography contains historical, forgotten toponyms, and traces of indigenous place names. Therefore, cartography is going to be increasingly used in toponymic research, and with the use of GIS tools.

More rarely an historical GIS approach has been adopted in studies about ancient cadastres as a source of historical toponymy, often as a side product of larger research projects (e.g. Orciani et al., 2007). Only very recently, some attempts have been made to better exploit this source. Among other experiences, the CASTORE project in Tuscany illustrated well the extraordinary potential of ancient cadastral cartography in the collection of toponyms (Cassi, 2015; Grava et al., 2013; Sassoli, Trevisani, 2015; Biagioli, 2016).

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Actually, Italy has a very rich cadastral heritage that can be used as an historical source for several scientific purposes, such as the study of "real estate, family composition, land use, toponymy and anthroponymy" (Zangheri, 1980 p. 4, my translation). Cadastres can be considered as a sort of GIS ante litteram, where spatial data (parcels on the maps) are univocally linked to alphanumeric data in the register. In the last few decades, this characteristic has been employed in different disciplines: historical ecology, forestry, landscape history and historical geography have been using ancient cadastres mainly to reconstruct historical land use, and to produce historical geodatabases (among many others: Bender et al., 2005; Longhi, 2008).

Cadastres do not belong to the cartographic realm exclusively; they are also fiscal documents, and need to be studied in their complexity. In the Veneto region, ancient Venetian "Estimi" (the precursor of modern cadastres) has been largely examined (Cavazzana Romanelli, 2006; Gasparini, 2006), but the 19th century cadastres, as yet, have not had a large scientific use, neither in general, nor for toponymic purposes.

It must be noticed that the Veneto region has a long linguistic research tradition in toponymy (among many others, Olivieri 1961; Pellegrini, 1987) and yet cartography was neither systematically used as a source, nor as a support for publication (one of the rare exceptions is the long lasting research about "Oronimi Bellunesi", carried out by the Angelini Foundation in Belluno: see Angelini et al., 1993). Some examples of the use of cartography as a source for toponymy in the Veneto region can be found instead in the geographic tradition about abandonment (Varotto, 2000), where a historical GIS approach has been adopted, using mostly the 20th century cartography, such as the diachronic series of the Official Map of Italy, an important reference point for toponymy in Italy (Vardanega, 2002; Ferrarese, 2005).

As far as I know, in the Veneto region cadastres have been used for toponymy purposes empirically only, and in limited urban or mountainous areas (De Bolfo, Ferrario, Turato, 2005, for the municipality of San Nicolò di Comelico; the Atlas of the Venice Lagoon, 2011, for the Murano island: http://www.silvenezia.it/?q=node/80; the work of Angelo Chemin, for the Canale di Brenta valley in 2011: http://www.osservatorio-canaledibrenta.it/-Mappe-della-toponomastica). This source is far from being fully explored from the toponymic point of view. In the following paragraphs I will test this source in some study areas, to test its potentialities, reliability, and limits. This paper focuses on the documents of the first modern cadastres of the Veneto region, the so-called "Napoleonic" maps and registers.

The 19th century cadastres in the Veneto region as historical sources

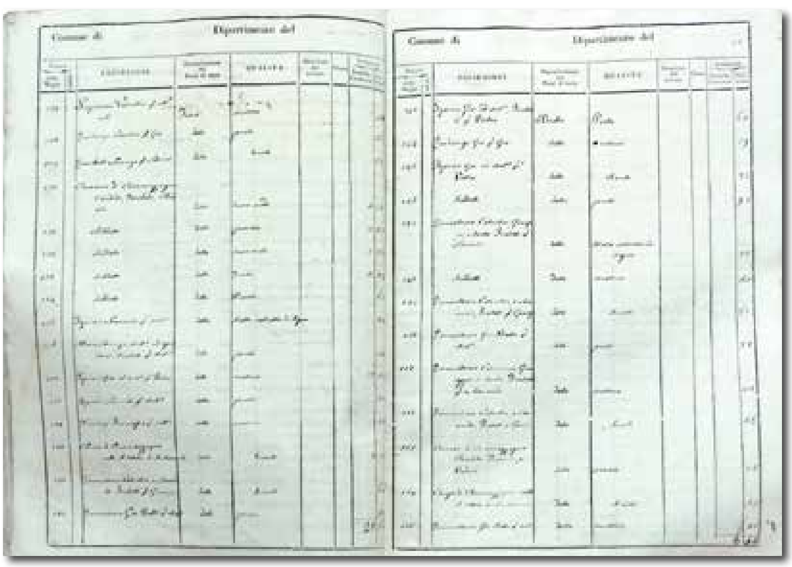
Before proceeding with our test, it is important to provide some basic information about the cadastres produced in the 19th century in the Veneto region.

This territory, located in the north-eastern part of the Italian peninsula, covering an area of about 18,000 km^2 (Fig. 1), has been administered by the Republic of Venice for 500 years. After the fall of the Serenissima Republic in 1797, Austrian and French governments alternated in this territory for about twenty years. During this time, the French government launched a new general cadastral survey, to replace the ancient

Venetian “Estimi”. Like other Ancien Regime institutions, Venetian Estimi, despite some exceptional innovations introduced in the late 17th century (Gasparini, 2006; Cavazzana Romanelli, 2006) produced severe economic and social inequalities. By 1818 a first series of maps (called “Napoleonic maps”) and registers (“sommarioni”), were published under the new “democratic” regime (Locatelli, 2003; Repele et al, 2011). These first maps and registers were followed by another series (so called “Austrian” cadastre). The “Napoleonic” series is now preserved at the State Archives in Venice and consists of more than 1940 maps at the scale of 1:2,000, and 2069 registers, for a total of about 32 metres of shelf space (Fig. 2). The latest maps and registers can be instead consulted in the provincial sections of State Archives and generally also in the Municipality archives.

Fig. 1 - The Veneto region

Fig. 2 - Napoleonic cadastral register (“Sommarione”). Please notice the column dedicated to place names (denominazione dei pezzi di terra).



Napoleonic maps and registers contain a huge quantity of microtoponyms, collected directly in the field by cadastral surveyors. It must be noted that each cadastral surveyor has been hosted by municipalities, staying for quite a long time in the survey area and being constantly accompanied in the field by two or more local informants, people who knew the area well and spoke the local language.

Local informants signed the map and sommarione: their names are important to establish the reliability of the place names collected.

Methods

The study areas and the comparison

Napoleonic cadastral maps and registers have been produced by a plethora of technicians and cartographers, and published from 1913 to 1918, so they suffer from a certain variability. To have a general idea of the source, therefore, it is necessary to compare different topographic contexts (lowland, hills and mountains), and to analyze maps produced in different times. For this purpose, three study areas have been chosen on the basis of previous research on land-use, where a historical GIS geodatabase was already available (Table 1 and Fig. 3).

The content of the geodatabase has then been compared with other sources, as for example, with the other 19th century cadastres, the first editions of the Italian Military Map, and the actual Regional Technical Map. The comparison allows us to highlight some of the limits of the 19th century cadastres as a source for historical toponymy. Last but not least, historical geodatabases have been compared with local contemporary toponymic maps produced by cultural associations in a minority language area.

Study areas	PADOVA	SOAVE	COMELICO
Geographic situation	Veneto central plain Suburban lowland	Verona hills Rural, hilly	North-eastern Dolomites Remote, mountainous
Maps and registers	Brusegana	Brognoligo Castelcerino Monteforte in colle Monteforte in piano Soave	Casamazzagno Candide
Published in	1812	1813-14	1816-18
Surface	14.23 km^2	36.80 km^2	8.47 km^2
Number of parcels	1,294	8,535	3,596
Average surface of the parcel	1 ha	0.4 ha	0.2 ha
Number of toponyms	29	305	77

Table1 - The three study areas.

Fig. 3 - Maps from the three historical GIS.

The geodatabase

In order to test the toponymic content of the Register, a historical geodatabase has been created. The cadastral maps have been georeferenced and digitized; the registers have been transcribed to a csv file. Then, the shape file has been joined with the csv file, with the same simple procedure used to map historical land use. The result is a polygon shape file where each parcel has its own place name. "Dissolve" command provides a map where toponyms refer to a contiguous group of parcels.

This procedure appears to be simple, but it includes several challenges and raises several issues, which will be clarified in the following paragraphs.

Results

Characteristics and limits of the source

As a preliminary observation, it is necessary to distinguish between toponyms coming from maps and those from registers. Only major toponyms are reported on the maps, while the greatest quantity of microtoponyms are collected in registers. As figure 4 shows, only a few toponyms are repeated in the map and in the register.

Secondly, comparison between the subsequent editions shows that only the Napoleonic registers record toponymy, while the Austrian cadastre records only a few toponyms on the maps.

Thirdly, an historical GIS database reveals the real number of toponyms recorded by the Napoleonic cadastre. In the three study areas, toponymy density varies from lowland to the mountains, from 2 to 10 toponyms per square kilometre, while the average parcel size varies from 1 ha to 0.2 ha.

A fourth remark can be made. Since in the registers toponyms are linked to parcels, the historical GIS provides not only a large quantity of toponyms, but also an hypothetical georeferenced perimeter for each one of them. Historical GIS is based on polygons instead of points, very different from a "normal" toponymic map. This introduces some difficulties in managing a toponymy hierarchy. Due to the very structure of the cadastre, in fact, toponyms are always registered at the parcel level. Therefore, the only way to understand the relative importance

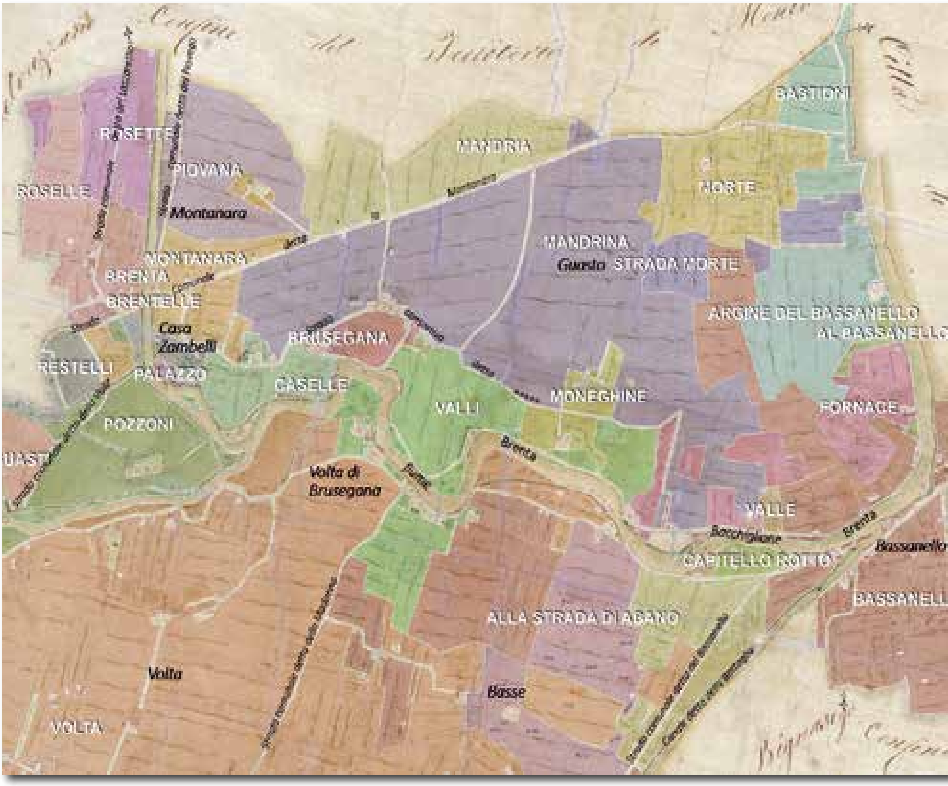


Fig. 4 - Toponymy on the map (in black) and in the register (in white).
Names of localities (as for example, Morte, Moneghine, Pozzoni, Restelli, Piovana, Bastioni) are not recorded on the map, while the names of the roads and of the rivers are not recorded in the register. Historical GIS has to integrate both.

of a toponym is the dimension of the area it is linked with, or its shape. In Brusegana (Padova), for example, "Volta" is referred to as a widespread area, while "Moneghine" is referred to a small concentrated area.

Finally, an historical GIS database allows us to test spatial reliability of the cadastral source. For example, some anomalies in the spatial distribution of toponyms (for example, the presence of some parcels named "Mandria" within a large number of parcels named "Mandrina" in Brusegana – Padova; a few parcels named Fessà, 'trespassing' in an area named Bidié in Casamazzagno – Comelico; Fig. 7) can be explained with original transcription errors. They could have been induced by the fact that repeated toponyms are not recorded in each row of the register, and are instead substituted with the word "detto", meaning "like the previous": when the toponym listed changes exactly at the beginning of a new page (Fig. 2), there is the suspicion that the previous toponym could have been erroneously 'dragged' until the end of the previous page. Other transcription errors are possible when you find contiguous similar toponyms like "Rosette" and "Roselle" (Brusegana – Padova). Are they two different toponyms or variations of the same one?

Toponymic phenomena

Historical GIS can be used to verify some classic toponymic phenomena, such as relocation, appearance and disappearance, desertification, transonymy[1], etc. Even if this is not the main objective of this paper, some example can be given.

A comparison of the historical GIS of Brusegana (Padova) with the first Military Map at 1:25,000, f. 50-II, 1889 shows a low density of toponyms, clearly due to the different scale, but also due to a focus on different geographic features: cadastre toponymy indicates areas, while toponymy of the Military Map is more point-oriented, often attributing names to rural buildings after the families that live there (e.g. "Case Miotti") (Fig. 5).

The comparison with the Military Map confirms also some well-known diachronic phenomena: new place names designating new functions, as for example, the new "Piazza d'armi" (parade ground), and the new "Regia Scuola di Agricoltura" (Royal School of Agriculture), established in 1874. In parallel, we observe a loss of place names linked to lost functions. An example is the toponym "Guasto", a large area outside the city walls, left empty to facilitate firing: in the 19th century the city walls definitively lost their defence function, and the toponym "Guasto" disappeared.

Potentialities: economic value, social value, preservation of toponymy

The Soave study area, in the Verona hills, is nowadays renowned for a fascinating medieval castle and for a famous white wine. Here, the historical GIS was created in 2015, while writing the candidacy for entry into the National Italian Register of Historical Rural Landscapes. The local consortium of wine producers that promoted the candidacy, had previously collected microtoponyms for the economic and promotional purpose of naming the Soave wine cru: wines of high quality produced by a single vineyard, generally identified with its place name. This phenomenon, that can probably be considered as a case of transonymization, shows the potential "economic value" of toponymy.

Topopyms for cru have been collected from official maps and from elderly informants (Lorenzoni, Zanichelli, Ponchia, 2008). Comparing the cadastral toponymy with the cru toponymy (Fig. 6) we notice that the first is much richer than the second. Only a smaller area (Monteforte) has been studied in detail collecting place names from ancient maps, to protect toponymy from the ongoing rarefaction (Poli, Bertolazzi, 2008): this collection is comparable to the cadastral toponymy density. Possibly, the cadastral toponymy could contribute to the next CRU edition, that can be interpreted as a way of maintaining ancient toponyms alive.

Comparison with local contemporary bottom-up toponymy maps is quite interesting also in the Comelico case-study. In the Comelico valley, situated in the province of Belluno, at the border between Italy and Austria, they speak a Ladin dialect (Ascoli, 1873; Tagliavini, 1926; *idem*, 1944), and have been recognized as a linguistic minority by law in 1999. Witnessing the great social importance of endonyms, in 2004 a local cultural association published a Ladin toponymy map (1:25,000, 1:10,000) of their municipality (GRC, 2002). Endonyms have been

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[1] Transonymization is the transfer from one class of proper nouns to another: for example, the name of Soave wine (see below) is a toponym becoming a chrematonym (a name of a commercial thing).

Fig. 5 - Brusegana (Padova): comparison with the Italian Military Map 1:25,000 (f. 50-II; f. 50-III), 1889.

collected from field research and interviews with older informants.

Comparing the local map with the Napoleonic cadastral database, we observe a singular correspondence in quantity and quality of place names (Fig. 7). Actually, this correspondence can be appreciated only knowing that in cadastral maps and registers local toponyms have been Italianized or Venetianized. The same happened in the series of Military Maps (that precedes the time of official recognition of the Ladin linguistic minority). So, if for the Veneto region in general one must take into account the Italianization of Venetian terms in official documents, here in Comelico valleys a reconstruction of endonyms must refer to the Ladin language.

Fig. 6 - Soave hills: comparison between cru toponyms (left, in green) and cadastral toponymy (right, in white). A bottle of cru named after the micro-toponym "Calvarino".

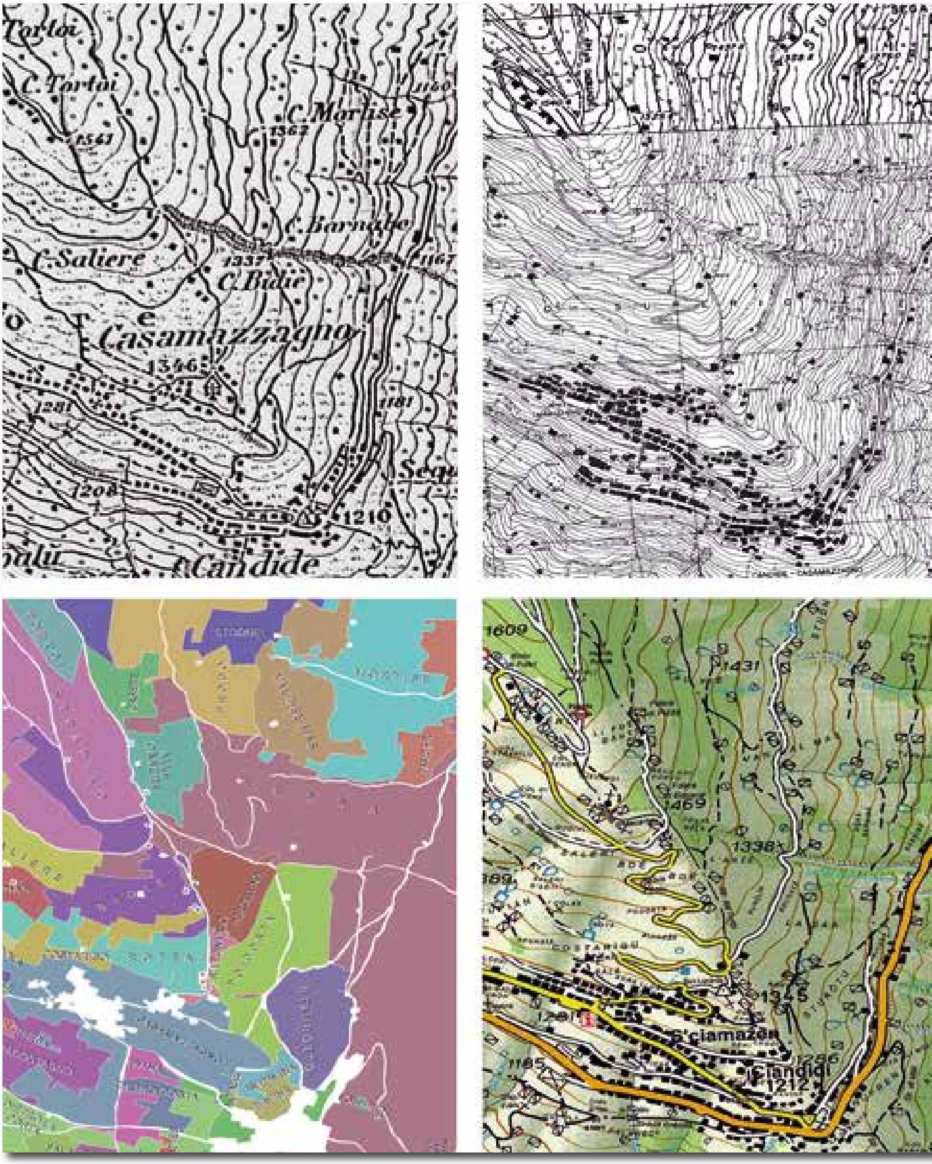

Fig. 7 - 10th century cadastral toponymy in Comelico (bottom left), in comparison with the Military Map 1889 (top left), the current Regional Technical Map (top right); the Ladin toponymy map (bottom right). Please note Italianization and Venetianization of local toponymy in the official maps.

For this purpose, historical GIS is an excellent starting point: cadastral toponyms can be recognized by local Ladin-speaking people, already used to currently expressing places name in Italian and Ladin. This is what we did in 2005 with the map of San Nicolò already mentioned (De Bolfo, Ferrario, Turato, 2005). During bottom-up meetings, we found only a few place names new or not recorded in the Napoleonic cadastre; on the other side, we found only a few place names recorded by the Napoleonic cadastre and not recognized by local informants. Of course, like in every transcription, the passage from spoken language to written register and map imply changes. The larger the distance between official language and local language, the more difficult becomes the transcription. Sometimes the help of experts in linguistics and dialectology is needed, to explore the relationship between the historically attested forms and the forms currently in use. Previous linguistic investigations may also be of value (Barbierato, Vigolo, 2008). The examination of other archival sources prior to the 19th century cadastre allows us to deepen the linguistic and geographical history of some recurring toponyms (Cesco Frare, 2001).

Discussion

The case studies mentioned above demonstrate the great potential of the 19th century cadastre – and in particular the so-called "Napoleonic" maps and registers – as a source for microtoponymy in the Veneto region, by the way of an historical GIS. The particular character of this cadastre needs a database to integrate the toponyms recorded on the maps with the toponyms listed in the registers.

The test realized in the three study areas shows that Napoleonic cadastre can display an array of historical toponyms much larger than those shown on official maps, and comparable to the more detailed local bottom-up toponymic maps, produced with patient fieldwork. When a local toponymic map already exists, the historical toponymic GIS database can act as a control tool.

From an historical geography point of view the Napoleonic cadastre is placed in a favourable temporal position to act as a link between the historical toponymy, recorded in the archival documentation, and the contemporary toponymy. In fact, it records some toponyms that are no longer in use, but can be recognized by local informants. The experience in 2005 in Comelico, already mentioned, shows that the historical GIS database can be an excellent tool to bring back to the memory of local informants toponyms that are disappearing. In this way the database acts as a reminder.

When even the oral memory has been lost, the historical GIS based on 19th century cadastre offers valuable help in locating toponyms that are present in archival documentation, but are difficult to place on a map. In this way the database acts as a georeferencer.

The use of this source obviously has limitations. Attention must be given to possible error chains, both topographic and of transcription; caution is required when the local language and transcription language do not coincide or are very distant, as for example in minority language areas. Integration with other sources (including oral sources) is always required. Last but not least, extraction of toponyms from the register, digitization of the map and construction of the database are extremely time consuming.

Referring to the limits of this same study, it must be said that the samples taken in the three study areas are probably too small to really test the source. Further research is necessary in larger areas and in other parts of the region. Nevertheless, experience in the study areas demonstrates that there are broader possibilities to display the potential economic value of historical toponymy and to activate its social value with action-research. The Napoleonic cadastre cannot be used as the only source, but is an excellent starting point.

Acknowledgements

The GIS database of the Padova study area has been realized within a cooperative project between the Iuav University of Venice and the Padova Municipality. I would like to thank in particular Gianpaolo Barbariol, Daniela Luise, Saveria Prai. The GIS database of Soave area has been realized while preparing the candidacy of the Soave hills for entry into the Italian National Register of Historical Rural Landscape and Traditional Agricultural Practices. I would like to thank in particular Aldo Lorenzoni. The GIS database of the Comelico area has been realized to prepare a study about the historical toponymy of the entire valley, inspired by Piergiorgio Cesco Frare and realized with Marcello Martini Barzolai, both of whom I thank for their help with the Ladin language. I would like to thank also Arrigo De Martin Mattiò, and Gino and Dino Zandonella Sarinuto. The Comelico historical GIS is the starting point for the European project PRIMIS, just funded within the Interreg V A Italia-Slovenia 2014/2020 program, that intends to realize a bilingual toponymic atlas of the valley (Ferrario, 2018).

Andrea Turato (Patchworkstudio) transcribed registers and digitized the cadastral maps, with the help of Amelia Maris, Chrysafina Geronta, Marianna Mazzucco, Francesca Peroni, Alessandro Benacchio, Veronica Pignoletti.

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The cadastral parcel toponymy of the Montescudaio community in the Grand Duchy of Tuscany

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Abstract

In this paper, through the combined analysis of textual and cartographic documentary sources, the accurate geographical boundaries of place names in the Community of Montescudaio have been identified to the date of the activation of Ferdinandeo-Leopoldino Land Registry.

The recent account and examination of previously unpublished archival sources allowed the identification of new and useful toponymic documents that have been georeferenced, using GIS applications. After converting to vector maps all the cadastral parcels reported on the georeferenced maps in the context of the CASTORE project, the place names identified in the Preparatory Tables were then linked to the polygons and overlapped with the Tuscan toponymy layer, called RETORE.

Keywords: *Grand Duchy of Tuscany, cadastral parcel, toponymy, Montescudaio, GIS, Cloud-GIS.*

Introduction

The municipality of Montescudaio – located in western Tuscany – is an ideal case study for those who work with digital cartographic systems for developing toponymic GIS applications (Gregory and Healey, 2007, pp. 638-653; Lucchesi, 2002, pp. 68-79). The factors that make this area particularly appropriate for the realization of a historical toponymy GIS (Pearson and Collier, 1998, pp. 162-176; Pearson and Collier, 2002, pp. 105-116; Bailey and Schick, 2009, pp. 291-296) are the extraordinary wealth of archival documents and the urban structure largely preserved if compared to the attestation of the 19th century cartographic documents on which the numerous archival investigations are mainly based (Andreazzoli et al., 2009, pp. 13-34; Baldassarri, 2009, pp. 71-94). The focus of this contribution is a significant archival source among the most important of contemporary Tuscany: the Nuovo General Catasto del Continente del Gran Ducato (Biagioli, 1975; Biagioli, 1981, p. 374; Biagioli, 1990; Conti, 1966; Conte; 2000). The Ferdinandeo-Leopoldino Cadastre, created for fiscal equalization purposes, is actually the first Tuscan geometric land parcel property record, built between 1819 and 1835 (the year in which it was activated throughout the Lorraine State). It was drawn up through the use of geodetic principles for the entire Grand Ducal territory. A

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group of surveyors, engineers and appraisers, mostly locally recruited, were in fact employed by the orders of Florentine officials in an epic parcel by parcel survey of the entire Lorraine State.

In addition to property records, the most relevant aspects of this document for our research were the Campioni dei Proprietari and the Tavole Indicative dei Proprietari e delle Proprietà respettive; we recovered the Fogli Mappali in which the grand-ducal technicians reproduced the whole territory in scales that varied between 1: 2,500 and 1:5,000 (for urban settlements the scale used was 1:625/1250).

In this research GIS software was used for vectorizing all the cadastral parcels from the Leopoldino cadastral framework and for geo-referencing the toponymy. In the first case, the result is the "photograph" of the Cadastre at the activation date (approved by the Royal Commission in the session of August 17th, 1832). In the second case, on the other hand, the toponymic information covers a much wider chronological span and is the result of very detailed archival research and of on-site investigations of oral sources from Montescudaio (Cassi, 2004, pp. 43-48).

The construction of the geo-database

The vectorization of the cadastral parcels of the Leopoldino cadastre, employed for the creation of a polygonal toponymic layer, was carried out using the cartographic source (raster), of the maps scanned and georeferenced in a project of the Regione Toscana called CASTORE (CAtasti STOrici REgionali) – historical cartography from Tuscany (Tuscan, Bourbons and Estense Catasti) – which has been referenced indirectly using the Regional Technical Map on a scale of 1:10,000. Over 12,000 map sheets have been reproduced in digital format with the CASTORE project[1].

In total, 1269 parcels belonging to 173 workshops and factories have been vectorized in polygons. The original structure of the cadastre is systematized in such a way that parcel units could be registered to more than one person (physical or legal). For this reason, when we speak of landowners in the land registry we must think of censorship of workshops: "for each factory, in the sample, the surname, the name, the patronymic and sometimes, titles and degrees of nobility, knighthood, military and ecclesiastical, or professional titles, such as 'doctor or lawyer'" (Martinelli, 1995, pp. 13-15). The territory of Montescudaio at the time of the initiation of the General Cadastre consisted of 5752 braccia quadre fiorentine (19.6 km^2). The properties subject to tax were 82.3% and those exempt 4.0%, rivers and roads occupied 13.7% of the entire territory. Regarding land use, the forest covered 36.8% of the community, 28.9% was bare, 1.5% Mediterranean scrub, while the cadastral parcels recorded as pasture were 13.7% of the total. The buildings – 219 between houses, stables, hydraulic factories, shops, etc. – covered 0.2% of the community area, while the cultivated land, olive and fruit trees were 4.9%.

The largest owner of Montescudaio at the time of the beginning of the Cadastre was the Imperial and Royal Estate of Cecina, with only 47 plots, 23.8% of the assets

[1] On the project see: http://www502.regione.toscana.it/castoreapp/ [Access November 2018].

subject to tax to be paid by the inhabitants (bare land, pasture and wood), followed by the family Cancellieri with 138 plots (17.6%) and Guerrini with 158 parcel plots holding 14.8% of community assets. The assets of the Abbey were 0.9% of the total, while the Community of Montescudaio owned only two cadastral parcels equivalent to less than 0.01% of the entire community. If we consider the number of registered plots, we find that the owners with more than 100 parcels were only two, while the owners of estates composed by a range of 10 to 50 plots were 17 (Fig. 1). For the buildings over 89% were located at altitudes between 200 and 250 metres above sea level and more than 74% of them were located in Section E of Castello di Montescudaio.

The survey of toponymic data in the various informative series extracted from medieval and modern textual sources was done by matching the places extracted to the toponyms found in modern and contemporary cartographic sources (Garzella, 2009, pp. 35-42; Biagioli, 2009, pp. 135-150). The result was the creation of a large digital geographic archives consisting of three types of elements: a) polygons, used for the representation of the 19th century cadastral parcels and for the parcel toponyms present in the Preparatory Tables; b) lines, with which the hydrographic and road elements of the Community of Montescudaio were reproduced with the Leopoldino general outline; c) points for the relief of toponyms in different eras (Fig. 2).

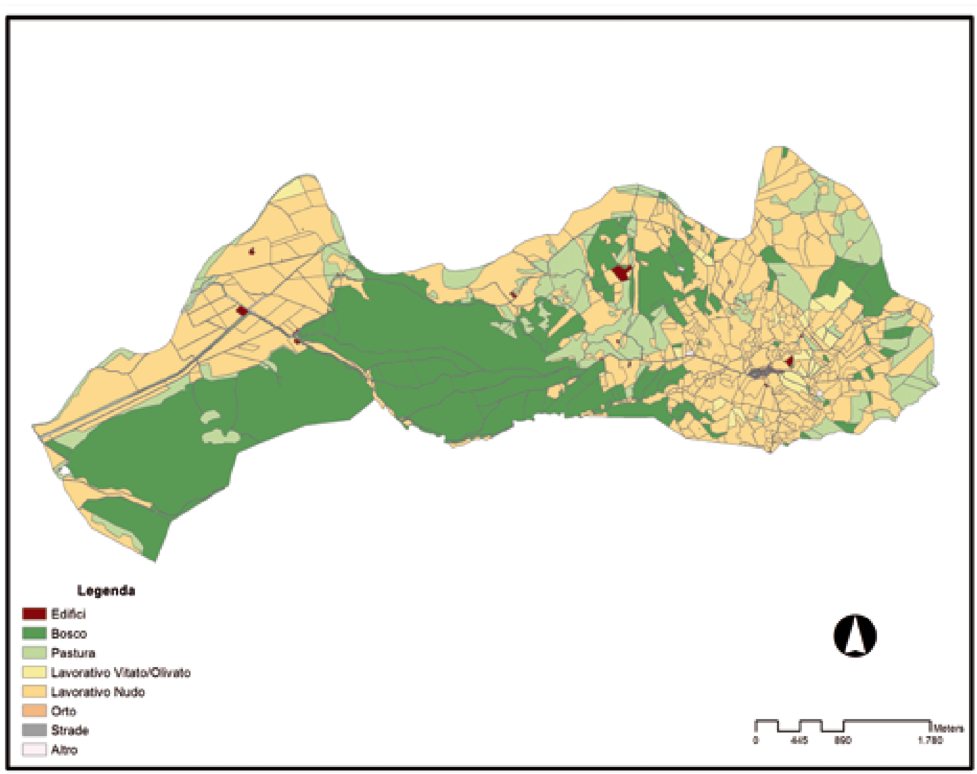

Fig. 1 - Parcels of the New General Cadastre (1835) representing land use.

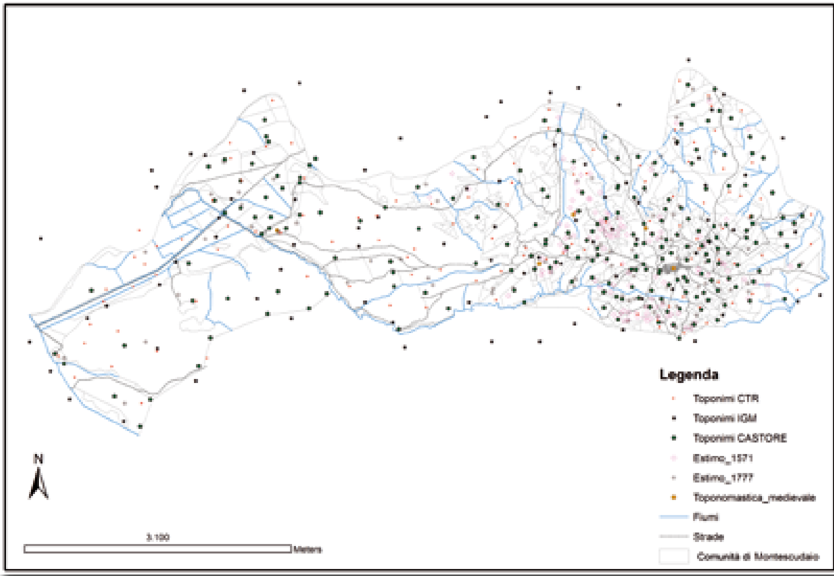

Fig. 2 - Several series of data extracted from the archival and textual sources presented as a layer of point features.

Conclusions

In this paper we presented a topic of great interest for scholars and researchers interested in toponymy and place names of Tuscany. We believe that in the coming years further research will also improve the already copious toponymic knowledge and heritage of the entire regional territory covered by the Ferdinandeo-Leopoldino cadastre and registry.

In 2016, fifty years after the famous flood of 1966 that seriously damaged the documentary materials kept in the archives of Florence, a series of archival funds were made available to the public, including those of the Commission on the formation of the land registry. It was precisely in this huge mass of materials that the Preparatory Indicative Tables were found. At this stage of our research, we have only partially acquired it in digital format. Within these registers, in the first column of each page and before the parcel number, the editor of the document inserts the toponym of each individual plot. It is therefore evident that this additional information will allow a more accurate analysis if compared to an investigation conducted solely with the help of the Indicative Table.

This document was extracted presumably by the officers from the "country records and chronicles office". The text was later discarded and dismissed in a selection stage conducted by the personnel of the Florence Archives. Once the cadastral parcels vectorization process is concluded, the new digital document will allow researchers to use these geometric polygons to define the boundaries of each single toponym (Fig. 3). It is a parcel toponymy that shows all movements or errors inherent in the work of cartographers; they must constantly balance positioning names of places and retaining visibility of the objects in the cartographic representation.

This research has demonstrated that an improvement of the information useful for the reconstruction of boundaries of the toponymic knowledge is possible. It has also highlighted that research and reconstruction of historical sources are essential as a necessary step towards the achievement of a more organic and complete map of names than those present in current cartographic sources. In conclusion, it is also important to remember that this dense network of named places allows the correct geographical contextualization of earlier textual fiscal sources. The comparison with informative layers of Montescudaio contained in the RE.TO.RE. project demonstrates the great potential of the Preparatory Tables.

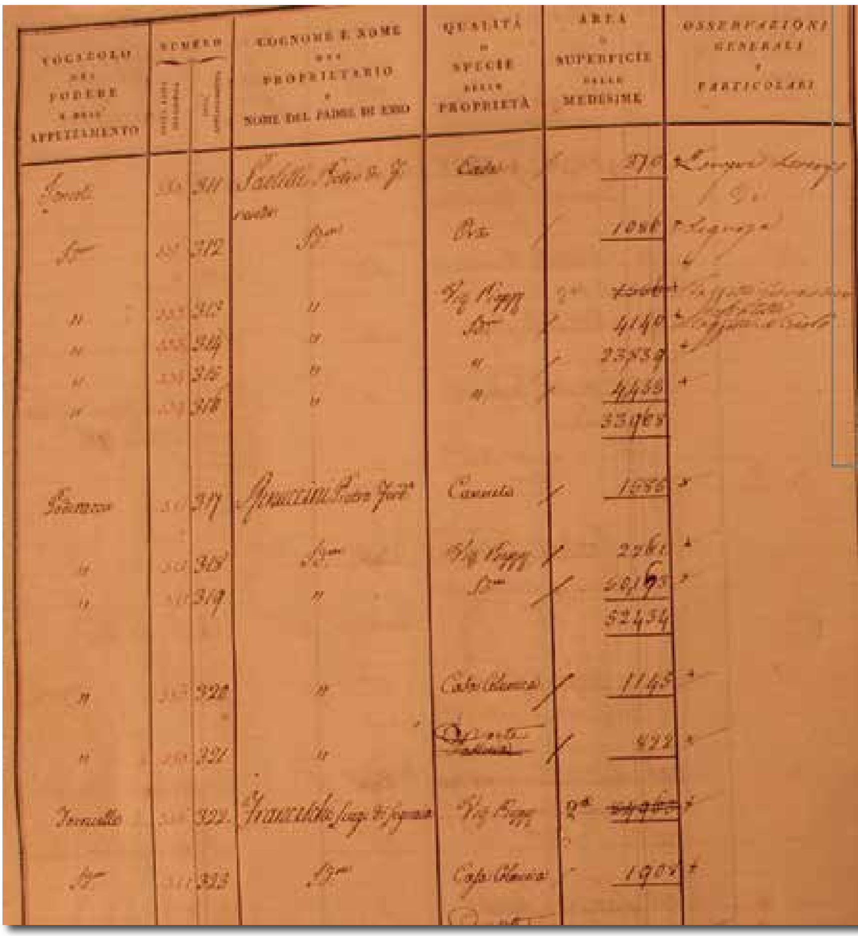

Fig. 3 - Detail of a Preparatory Table with, on the left side, the toponyms of each cadastral parcel.

From the point of view of the construction of a toponymic Historical-GIS, this experimental approach has presented several interesting hints and ideas. The data created have made it possible to carry out surveys on properties, land use and topography of Montescudaio, and enable the creation of a useful tool for spatial planning (Vitali, 2004, Panzieri, 2009). The vector layers relating to the Leopoldino cadastre, superimposed on the numerical cartography produced by the Tuscany Region, have been published online on a WebGIS and on an open source Cloud-GIS (Figs. 4 and 5) (Pearson, 2006, pp.178-193)[2].

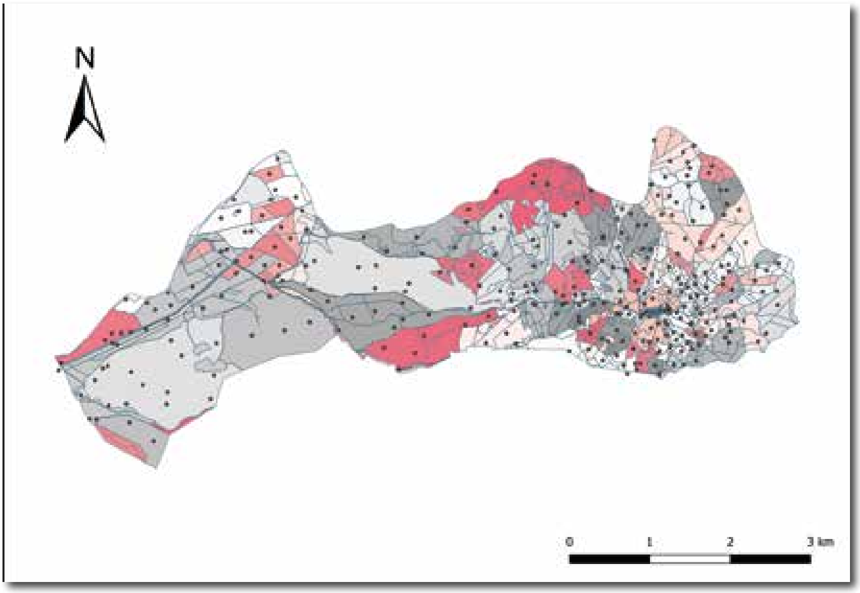

Fig. 4 - The dots indicate the toponyms extracted from historical cartography and present in the RE.TO.RE. database, while the coloured polygons correspond to the place names extracted from the Preparatory Tables.

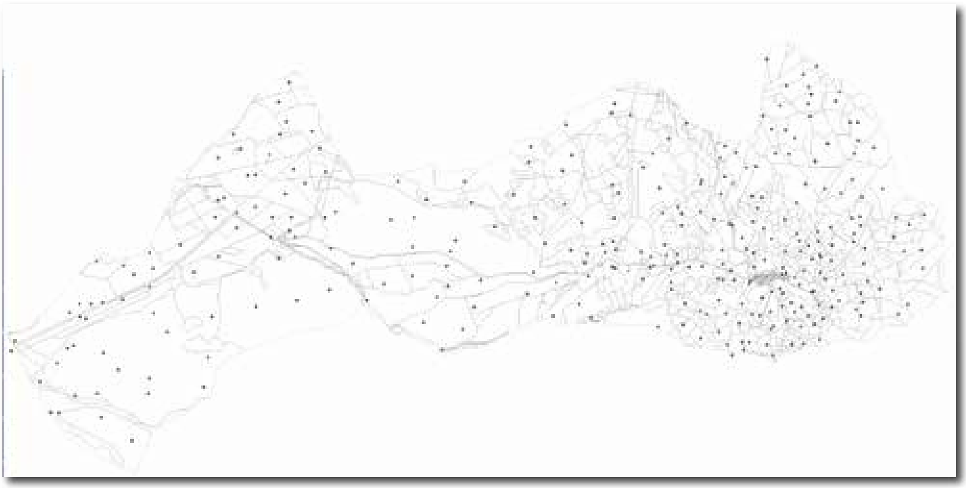

Fig. - 5 Cloud-GIS where toponymic data extracted from cartographic and documentary sources were uploaded and interrogated (https://qgiscloud.com/Grava/Cloud_GIS_bis/).

[2] http://cartografia.cfs.unipi.it/pmapper/map_default.phtml [Access November 2018]

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Maps, boundary conflicts and toponym disputes in 18th century Liguria: place names as historical products

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The paper presents a cartographic document produced in the 1759 by Matteo Vinzoni and the Count of Exilles to solve some boundary conflicts between the communities of Seborga, Vallebona and San Remo in western Liguria. The map represents the territory of Seborga; for a number of border sites, Vinzoni recorded the descriptions of both Seborga inhabitants and Vallebona and San Remo ones. Both descriptions are often different or even opposite, and places names are especially debated. The map has been georeferenced; place names have been vectored, and compared with later maps, as the 1851 "Gran Carta degli Stati Sardi" [Great Map of Sardinian States]. To conclude, this paper has two objectives: first, to underline the great number of places names recorded in 18th century maps, which have not been registered in later maps; second, to shed new light on the historical processes which influenced local places names that involved also jurisdictional conflicts.

Keywords: *historical cartography, place names, jurisdictional conflicts, Matteo Vinzoni, Liguria.*

Introduction

The study of place names or toponyms has a long tradition of research among historical and cultural geographers, as well as by anthropologists, philologists and archaeologists in the analysis of this topic. The potentiality and importance of this source lie in the ability of place names to persist in space, even to survive the events or the factors that inspired them; for this reason, place names analysis is able to provide information on landscape features, settlement patterns, morphology, ethnic, social and political processes that have disappeared nowadays (Cantile, 2016). Following these lines, the regressive reading of place names as "signpost to the past" (Gelling, 1978) is a method that has been adopted by many scholars. Inter alia, place names have been used to study the past environmental resource activation practices (Conedera et al., 2007), ancient morphology (Jett, 1997), disappeared vegetation coverage (Sousa, Murillo, 2001) or former agricultural systems, as in the Italian research of Laura Cassi (Cassi, Marcaccini, 1992; Cassi, 2007) and Cornelio Desinan (Desinan, Dentesano, 2004). However, a number of studies have underlined the danger of folk etymology bias in interpretation (Rackham, 1986; Moreno, 1990), or of over-interpretation of the source. For example, Blandine Vue, collecting and analyzing place names related to viticulture from notary documents, concluded that "là où la trouve, on ne la nomme pas; là où

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on la nomme on ne la trouve pas" (Vue, 2001, p. 80): in some cases, the place name identifies the exceptional and unusual element.

As for all historical sources, even the place names need some prudence in interpretation and a critical approach to both the documents in which they are registered and to the names themselves. Historical cartography should be considered not as the reproduction of reality, but as the result of a process of legitimization of practices, rights and actions. Following this route, the Italian micro-history field has suggested considering historical sources as the result of strategies of social actors to legitimize themselves and their jurisdictional and economic rights. It has been noted that historical documents are frequently produced during conflicts, for example in disputes over resources control (Raggio, 2001; Cevasco, Tigrino, 2008; Ingold, 2011, pp. 23-24).

Analyzing the place names collected from maps, therefore, means considering that they are the output of two different sequences. The first is made by those social actors who choose a name among those possible; "naming" a place represents a social act, implying practices of appropriation, colonization or agreement. The second level of production is performed by the cartographer who selects and transcribes only some elements of the reality (Gabellieri, Grava, 2016). For these reasons, every document should be contextualized, and the scholars should be fully conscious of the methods by which, and the purposes for which, it has been produced.

Following these routes, this paper presents an historical cartography produced by Matteo Vinzoni in 18th century Liguria. This map, as other similar documents (Rossi, 2001), is an interesting document which provides a stimulating point of view on the "conflicting" nature of place names. In the following pages the sources will be presented by analyzing the context in which the map has been created and the information that it contained. Secondly, collected place names will be compared with later maps of the 19th and 20th centuries.

The historical context: border disputes in the 18th century Liguria

Matteo Vinzoni (Levanto 1690-1773) was the most important 18th century cartographer of the Genoa Republic. His life and production have been studied by Massimo Quaini using the personal archives of Vinzoni (actually in the Archivio di Stato di Genova), that was seized by the Republic after his death, because of the strategic importance of his works. The archives consist of 15 folders filled with papers, drawings, expense notes, minutes, reports, letters and various documents (Quaini, 1987). During his life, he worked mostly at the Giunta dei Confini, the authority in charge of managing and mapping the boundaries in and outside the Republic's territory. Between 1715 and 1730 he worked in East Liguria, mapping the borders with Parma State and the Grand Duchy of Tuscany, and he carried out surveys in Corsica. From 1729 to 1760 he operated in West Liguria, defining the boundaries with the Kingdom of Sardinia (Vinzoni A., 2007, pp. 135-141). During this time, he also realized its most famous works, the Mappa dei Commissariati della Sanità and the Mappa delle due Rivere, that reproduced the whole territory of the Republic, and a number of large-scale maps of different part of Liguria (Vinzoni M., 1767). Moreover, from 1740 to 1759 he realized six maps of the territory of the small community of Seborga.

In the 18th century, the Republic of Genoa was not a homogeneous state. Its territory was composed of a pattern of different communities, feuds, and estates with different rules and statutes, which swore alliance to, or were submitted to, Genoa; at the same time, many communities of the present Liguria were subject to the Duchy of Milan, the Grand Duchy of Tuscany or the Principality of Piedmont (Zanini, 2008). There were a lot of conflicts for the control of lands and resources; conflicts that Genoa needed to manage and solve. Seborga, a small town located in south-west Liguria, near France, was one of the communities that caused many troubles in the 18th century. From 954, Seborga was a monastic principality independent from the Count of Ventimiglia and later from the Republic of Genoa. In January 1729, Seborga was bought by the Savoia family, and became part of Piedmont state (Durante, Poggi, 1984; Palumbo, 2007). As Seborga claimed for more land and for the control of some woodland resources, there were a number of conflicts and skirmishes between its inhabitants and the people of the nearest towns, San Remo and Vallebona. In 1704, Gio Batta Garzano from Seborga was killed by Agostino Viale from Vallebona. After the 1729, as Vallebona and San Remo were still loyal to Genoa, conflict arose: in May 1740 Seborga people seized some Vallebona cattle that were grazing in the claimed land, and shot the Vallebona people who tried to seize their sheep. In October 1753, Francesco Nobi from Vallebona was arrested, as well as Gio Batta Lupi from Vallebona in the following year. In the summer of 1754, Seborga people burned six houses and huts located in the claimed lands, and seized 3 cows and 89 goats (Genoa, Archivio di Stato di Genova [ASGe], Magistrato delle Comunità, Giunta dei Confini, Pratiche depositate dal Col. Matteo Vinzoni, f. 106 A).

For these reasons, Matteo Vinzoni was put in charge to solve these conflicts, carrying out a survey to identify and map the exact border between the communities (ibidem). From 1740 to 1759 he drew six maps of the areas (Marengo, 1931; Barlettaro, Garbarino, 1986).

- Confini di San Remo e Vallebuona con Perinaldo e la Seborga comprese le regioni di Cosio e della Balestra ed altri siti adiacenti. Tipo che sembra formato dall'Ingegnere Vinzoni, con la data de 27 luglio 1740, 1740 (Genoa, Archivio di Stato di Genova [ASGe], Cartographic collection, 783/Perinaldo, 1).
- Tipo dimostrativo del territorio della Seborga, 1749 (Genoa, ASGe, Cartographic collection, 1070/Seborga, 8)
- Seborga. Tipo geometrico del sito preteso controverso dalla Seborga. Con indice formato dal colonnello Vinzoni li 27 agosto 1754, 1754, 1: 9,600 (Genoa, ASGe, Cartographic collection, 1063/Seborga, 1).
- Tipo de territorj del Cuneo, di S. Remo, del feudo della Seborca e del preteso controverso dai Seborchini, 1755 (Genoa, ASGe, Cartographic collection, 1064/Seborga, 2).
- Proseguimento del tipo della regione di Rocca Scura sino al vallone di Vallebuona firmato dal ingegnere Vinzoni, 1759, (Genoa, ASG, Cartographic

collection, 1068/Seborga, 6)

- Tipo per l'amicabile adequamento de limiti fra la Seborca e San Remo e la Seborca e Vallebona, firmato dal conte Exilles per parte del Re di Sardegna e dal colonnello Vinzoni per parte della Repubblica di Genova a 2 novembre 1759, 1759, 1:4,752 (Genoa, ASGe, Cartographic collection, 1071/Seborca, 9).

The 1759 map of Seborga: a complex source

The map called Tipo per l'amicabile adequamento de limiti fra la Seborca e San Remo e la Seborca e Vallebona was realized in November 1759 by Matteo Vinzoni as delegate from the Republic of Genoa and Francesco Antonio Bertola, Count of Exilles, as delegate from the Kingdom of Sardinia (for more information on Francesco Bertola, see Sereno, 2002). The map is handwritten, using black ink and watercolour, with a size of 151 cm by 209 cm and a scale of 1:4,752 (Marengo, 1931).

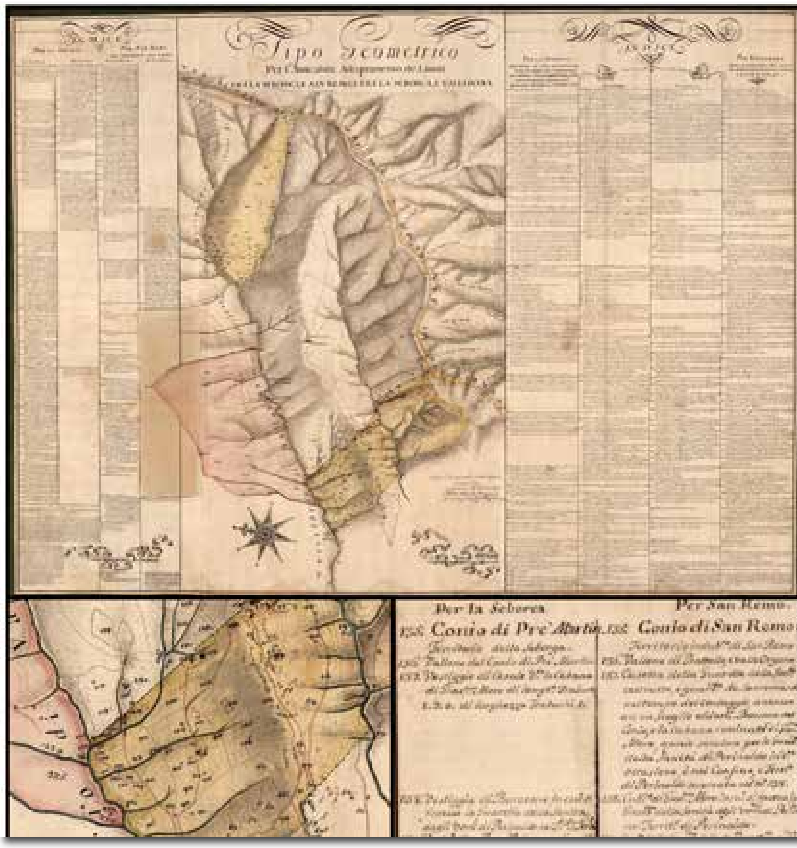


Figure 1 - "Tipo per l'amicabile adequamento de limiti fra la Seborca e San Remo e la Seborca e Vallebona, firmato dal conte Exilles per parte del Re di Sardegna e dal colonnello Vinzoni per parte della Repubblica di Genova al 2 novembre 1759", 1759, 1:4,752, Colonnello Matteo Vinzoni e Conte di Exilles (Genoa, ASGE, Cartographic collection, 1071/Seborca, 9).

In the centre of the document there is the reproduction of the area around Seborga, with settlement, houses, rivers, street and morphology marked. Claimed lands are highlighted by different colours. In these areas there are 133 points marked. Each point has a number, linked with the legend in the left and the right parts of the document. For each point, the legend contains in two different columns both the declaration and description of Seborga inhabitants and the declaration and description of Vallebona and San Remo ones. The description of each site involves the owner, the land use, the community which owned them and the place names. The two declarations coincide in only a few cases (see Table 1).

Site no.	Seborga	Vallebona
4	"Vallone di Montenero"	"Vallone del Bruxato, negandosi che sij il vallone di Montenero"
70	"Campo olivato e vineato con casale nella regone di Cian d'Auda posseduto da Gio Gublielmi di territorio della Seborga"	"Campo vineato et olivato e casetto di Gio Guglielmi territorio indubitato di Vallebona"
74	"Passo della Lona, ove per strada battuta si passa dall'una all'altra parte per il vallone di Battallo"	"Si nega che vi sii ivi alcuna denominazione Passo della Lona, né Passo alcuno, perché è uno scossese, e straripevole ritano, ove non possono passare bestie da soma, ne vote, ne cariche"
	Seborga	San Remo
141	"Boschi comuni parte d'Elici, e parte di Pino della Comunità di Seborga"	"Boschi Comuni parte d'Elici e parte di Pino della Comunità di San Remo"
206	"Campi vineati e orti nella Regione dell'Ubago della Lisega posseduto dagli'eredi di Antonio Francesco Garzano di Seborca"	"Terra vineata et ortiva di Giuseppe Viale di San Remo"

Table 1 - Some descriptions registered in the Vinzoni map. The table presents for each site both the description of Seborga and of San Remo and Vallebona.

For example, the Seborga inhabitants declared that the site 141 corresponds to a common woodland of the Community of Seborga, while people from San Remo described it as a common woodland owned by their Community. The site number 206 is described both as "orchard and vineyard owned by Antonio Francesco Garzano from Seborca" and "orchard and vineyards owned by Giuseppe Viale from San Remo".

The place names are especially debated: for instance, the same place (no. 4) is called "Montenero Valley" or "Bruxato Valley", while the "Cian d'Auda" is located in two different areas. Moreover, from the point of view of Seborga, the site no. 74 is "a pass called Lona, with a path to the valley of Battallo", while in the declaration of Vallebona, "the Lona Pass is not here; here there is not a pass but an unstable hilly slope where no beasts of burden are able to walk" and the real "Passo della Lona" is located in the site number 124.

These conflicts on place names can have two different explanations. First, local names of places are rooted in local communities; even nowadays people from nearby but different areas can use different names for the same site. Second, it is possible to suppose that the conflict on place names was grounded on the very conflict over lands. Indeed, as the boundary stones which in ancient time marked the border on the ground had in the 18th century completely disappeared, place names were the only spatial marks to locate the division between the territories of the three Communities. For this reason, both communities would have been interested in locating (or moving) some place names to claim more lands. As a matter of fact, the debated toponyms are the same that have been registered as boundaries in the Seborga Independence Act from Ventimiglia County in 954: "sicut incepit a Colla Crucis […] et progreditur infima convallium usque ad passum de Lona, et de dicto passum ascenditur ad Rocca obscura supre Sepellegium […] et descendit per Vallonum dicti Montis usque ad passum de Gargo" (cited by Durante, Poggi, 1988, p. 65). This document was well known in the 18th century, as a copy has been found in the Vinzoni private archives (Genoa, ASGe, Magistrato delle Comunità, Giunta dei Confini, Pratiche depositate dal Col. Matteo Vinzoni, f. 106 A).

The diacronic comparison: place names from the 18th century to nowadays

The Vinzoni's map recorded 69 place names in around 8 km^2. Most of them are related to an agro-sylvo-pastoral system which has actually completely disappeared, but can be useful clues for research devoted to rural society and economy.

"Passo di Fascia", "Fascia Piana", "Fascia Cattanea" can be related to the presence of terraced areas and stone walls ("fascia" is one of the local words for terraces). "Passo della Lovaira", "Regione della Lovaira", "Vallone di Lapalupo", "Vallone dell'Inferno" are clues of past practices of sheep breeding (as previous research demonstrated, a toponym referring to "lupo" [wolf] is common in pastoral areas). Phytotoponyms as "Vallone della Castagna" (chestnut), "Colla della Rovere" (durmast oak), "Bosco de Cassanei" (woodland) can contribute to identifying wooded areas. "Vallebona" can be related to highly productive land, while "Malinverno" relates to the poorest one. "Vallone del Bruxato" and "Pian Tagliasco" could be related to rural practices, such as the use of controlled fire and coppicing. Nevertheless, research in this direction should be carried out using a wider range of sources, in order to compare this evidence with information collected through field surveys and textual documents.

The Vinzoni map has been digitized and georeferenced using a GIS software,

in order to be overlapped on the current Regional Technical Map. Place names have been vectored in the form of point elements. For each point, both the Seborga and Vallebona or San Remo descriptions have been transcribed. Figure 2 shows the localization of all the place names. The sites are clustered along the borders of the Community; disagreement on toponyms (the red dots) are mostly located in debated areas.
For comparison purposes, some of the following cartographic sources have been digitized:

- the Carta Topografica degli Stati Sardi in terraferma di S. M. il Re di Sardegna, sheet n. LXXXVIII, 1:50,000, elaborated in the 1850s by the Ufficio Topografico of the Sardinia Kingdom Army;
- the Carta d'Italia, sheet 1939, 1:25,000, elaborated in 1939 by the Italian Geographic Military Institute;
- the current Regional Technical Map, 1:10,000, elaborated in 2007 by Liguria Region.

Figure 3 shows place names that have been collected from these three sources. All the maps have a smaller scale than Vinzoni's map, so a very limited number has been recorded so far. Moreover, most of the "ancient" place names have completely disappeared. Even the 1850s map has a limited number of place names in common with the 18th century cartography. With reference to place name locations, their positions are directly linked with the Seborga boundaries as established in the 18th century.

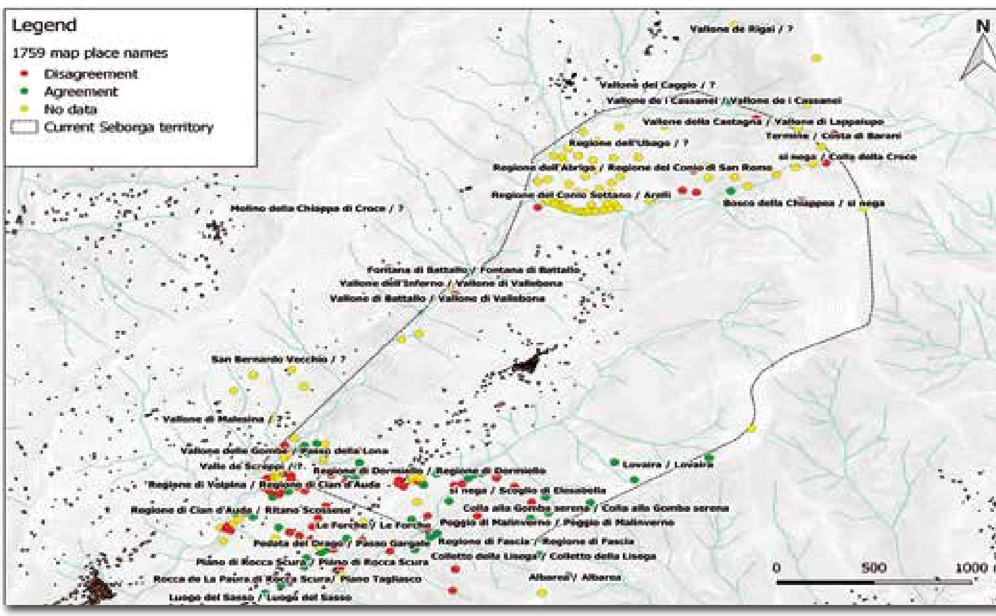


Figure 2 - Result of the digitization of 1759 map (Fig. 1) and of the vectorization of place names. The yellow dots shows the sites without a place name in the description; the green dots are the sites with agreement in place names, and the red dots the sites with disagreement in place names.

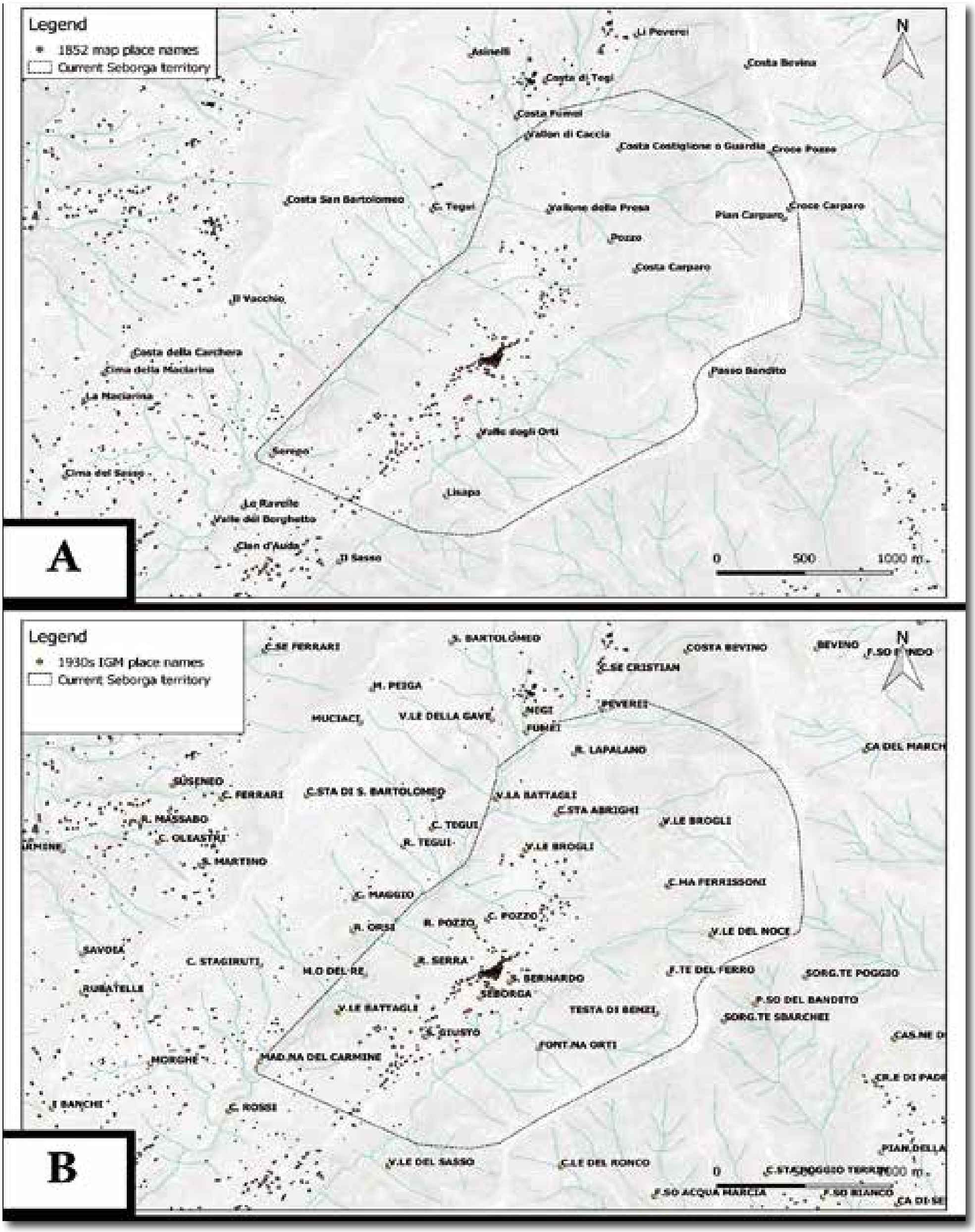
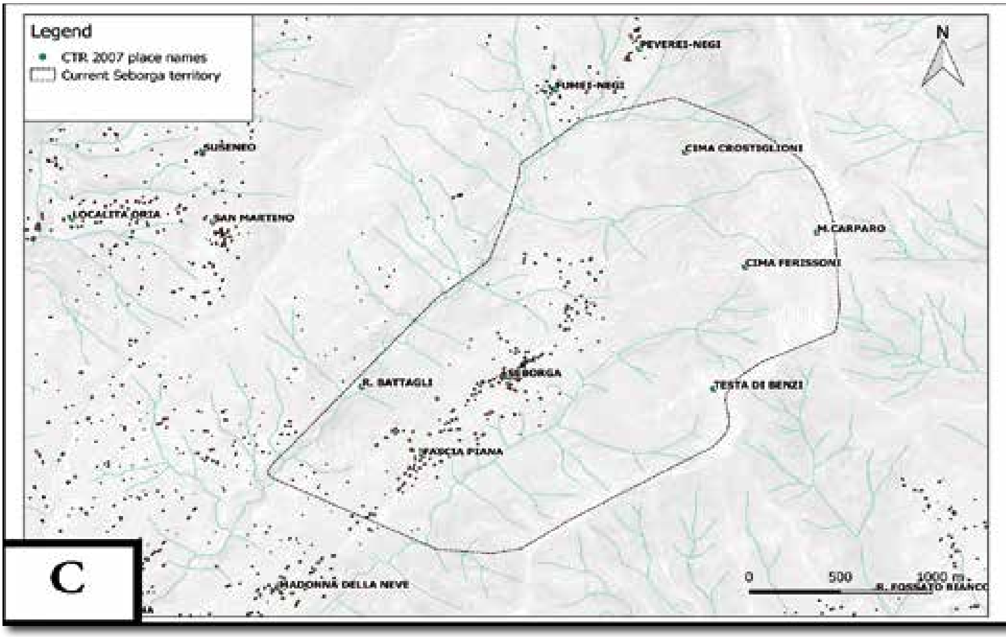


Figure 3 - Result of the digitization of different maps of Seborga area and of the vectorization of place names.

A:"Carta Topografica degli Stati Sardi in terraferma di S. M. il Re di Sardegna", sheet n. LXXXVIII, 1:50,000, produced in the 1850s by the Ufficio Topografico of the Sardinia Kingdom Army.

B: Map of Italy, sheet 1939, 1:25,000, produced in 1939 by the Italian Geographic Military Institute.

C: Regional Technical Map, 1:10,000, produced in 2007 by the Regione Liguria.



Conclusion

To conclude, Vinzoni's map constitutes a valuable case study that allows some interesting remarks.

The 18th century topographical map shows a great number of place names used by inhabitants, which have not been recorded in later maps; many of them are linked with the agro-sylvo-pastoral economy, so their collection can bring new light on local rural places. Moreover, it is important to underline that the place names relating to borders of communities in the 18th century are the same that are mentioned in the Seborga Independence Act of the 10th century. These place names have not been recorded in following maps; hey disappeared from the maps when they lost their function as border markers.

Indeed the recorded conflict relating to place names shows the "living nature" of place names, which indeed were used by different communities in different locations often in order to legitimize their interests, at least until official maps were produced by the central government and the state. For these reasons, place names can be considered as historical products; they are shaped by changes in land use, cultural and political conditions or economic evolution, but also they result from historical processes of jurisdictional conflicts between different social groups and of strategies to control environmental resources. For these reasons, place names need a very careful evaluation and critical analysis and a comparison with different sources to assess and validate the hypotheses; at the same time, their history can provide information not only on the spaces represented, but also on the strategies and actions of past social groups.

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Phytonyms, phytotoponyms and landscape history. The case of the municipalities of Borgo San Lorenzo and Vicchio in Tuscany

Lucrezia Iacuzzi* and Martina Simeone*

Abstract

The aim of the research was to verify the correlation between phytonyms and phytotoponyms in an area located between the municipalities of Borgo San Lorenzo and Vicchio in Tuscany and characterized by a mountainous, hilly and plains landscape.

After a preliminary census of the phytotoponyms reported in the Lorenense Cadastre and in the Italian official maps, the study has been supported by appropriate verifications of the etymology of each toponym, analyzing the correlation between its widely used name and dialectal forms. In examining the original meaning of each toponym, it was assumed that research would reveal the species from which the toponym originates, without excluding the possibility that some exceptions could occur.

The paper finally identifies congruent cases between phytonyms and phytotoponyms, underlying the link between the botanical species and the local place names as well as their inconsistency in the case in which the phytotoponym does not reflect the species of reference. In these cases, the study proposes a hypothesis regarding the genesis of the phytotoponyms mismatch.

Keywords: *phytonyms, phytotoponyms, phytoclimatic area, landscape history.*

Introduction

At first glance, the cartographies of the Mugello landscape show a considerable number of toponyms that feature the flora, reflecting the tight relationship between vegetation and community, with its cultural and economical influences (Cantile, 2016, pp. 11-16).

These are called "phytotoponyms", that is a type of toponym that consists of plant names. They provide information to identify the vegetation found in particular areas in the past – such as the presence or the distribution of a species – and being then the names of places, which originate from the spoken language, they can be used to retrace the etymology and the dialectal origins of plant names (Frondizi, 2015, pp. 160-165).

By investigating the origins of individual names, their etymology and location, the hypothesis is that they may reveal the presence in the area of the species from which the toponym originated. Nevertheless, in spite of this

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connection, a given toponym may also represent the exception to the rule; it is interesting to observe those cases in which there is no presence in the area of those species identified through the toponym. In the same way the results, obtained through the comparison between the two historical periods examined, were relevant. They showed in the main a correspondence of phytotoponyms, with few changes of either letters or articles, but they also underlined the unification of more adjacent phytotoponyms, which is a phenomenon probably due to the enlargement of small and larger farms.

Materials and methods

This research on phytotoponyms focuses on a specific area, located between the municipalities of Vicchio and Borgo San Lorenzo, within the area of Mugello in Tuscany, and characterized by a mountainous, hilly and plains landscape. The cartographic area selected for the analysis resulted from the combination of two consecutive editions of the Topographic Map of Italy at 1:25,000 scale, achieved by the Italian Geographic Military Institute (IGMI): the first one covers the area around Borgo San Lorenzo (Series 25/V – Sheet 106 - I - NE - Survey 1873), while the second one covers the areas in the vicinity of Vicchio and Villore (Series 25/V – Sheet 107 - IV NO - Survey 1928).

Following this first analysis, the research took into consideration phytotoponyms of the same area represented on the maps of the 19th century Cadastre, in order to compare different historical periods on the same topic. These maps represented the very first cartographic revolution in Tuscany before the significant transformations started in the 19th century. Indeed, these maps offer detailed information in reference to the landscape of Tuscany, becoming a valuable tool for the study and representation of its territory. The project of Tuscany Region named "CASTORE" (Catasti Storici Regionali) [Historical Regional Cadastres], gave the opportunity to use these maps, converting more than 12,000 maps into georeferenced maps.

The study has deliberately given up using the regional historical toponymy database, made by the Tuscany Region (Sassoli and Trevisani, 2016, pp. 111-116), because it preferred to test the method of investigation on traditional documents, as these currently constitute the documentary sources generally available in Italy.

The research started with recognizable toponyms, like the *Abeto* (silver fir tree), *Querceto* (oak grove) or *Uliveta* (olive grove), and then shifted to a more detailed analysis thanks to the book of the Italian glottologist Silvio Pieri (Pieri, 1889-1919). This volume offers a wide range of toponyms, which are categorized according to the origin of their name (personal Etruscan, Latin and Germanic names, names of plants, animals and soils). The summary at the end of the book is incredibly useful in order to understand toponyms which at first did not seem linked to the vegetation. This was the case of the Fatino, from the beech tree, *Filetta*, from the fern, *Filicaja*, from the fig, *Gualducci*, from "wald", that is wood, a recollection of the Langobardic domination in Tuscany, *Linari*, which comes from flax, as well as many others. Thanks to this study, it was possible to identify also the individual phytotoponym etymologies, most of which are of Latin origin; only in rare cases are found different origins, as in the case of *Gualducci*.

The volumes *Flora popolare italiana* wrote by the botanist Otto Albert Julius Penzig (Penzig, 1924) contributed and sometimes confirmed the research. The author lists a wide range of plant species, following the scientific nomenclature and, for each category, he indicates the various names used by the Italian people. His work, does not only contribute to the identification of toponyms, but it is also a valuable linguistic, ethnological and folkloristic resource. According to the book, common Italian names are shown together with the species to which they refer to. Therefore, it shows the traditional Tuscan words together with the plant species as a proof of the presence of the plant in the territory. In addition, Silvio Pieri makes a further clarification: for instance, the myrtle in Tuscany is called "mortine", a word that gives birth to the toponym *Morticine*. Following the opposite process, which is from the common name to the scientific name, it has been possible to identify which plants have changed their scientific names in a given period: for instance, today, the chestnut is the *Castanea sativa*, but in the book, it is described as the *Castanea vesca*.

Further research has been conducted through the *Dizionario geografico e fisico storico della Toscana* by Emanuele Repetti (Repetti, 1833-1843, 94-96), in order to compare the physical context and the historical background of the toponym. This *Dictionary* confirmed the etymology of the toponyms, their location, and the information regarding the birth of the places. The data collected are mainly those from the major residential areas or those areas with a church, and their general hallmark may indicate the strong presence of the same name. For example, for the name *il Pino* the dictionary informs us of its massive presence of the toponym in the Tuscan territory in this way: "Different places and small villages in Tuscany maintain "the Pine" distinguishing feature, or "at Pine", resulting from some magnificent Pine tree that lived there for a long time; as well many towns and districts keep the name of Querce grossa, Querceto, Querceta, Querciola, of Leccia and Lecceto, Frassine and Frassineto, Noce, Noceto, Olmo and Olmeto, and of many others" (Repetti, 1833-1843, Vol. 4, pp. 266-267).

Furthermore, in reference to *Farneto*, a particular location described, the dictionary gives a specific meaning: "Farneto di Botena in Mugello in Val di Sieve. District that gave the name to two parishes; one already existed (S. Bartolommeo), the other one linked with S. Michele a Ripa Canina. This district of *Farneto* was brought into feud by emperors Arrigo VI and Federigo II, at the time when the parish church of San Bartolommeo in Farneto was patronage of the Florence episcopal diocese" (Repetti, 1833-1843, Vol. 2, pp. 94-96).

To better understand if the species linked to the toponym could effectively inhabit the area in the 19th century, a more detailed analysis has been conducted on the presence and distribution of each individual species through the volume *Prodromo della flora toscana* (Caruel T., 1860). In the last part of the research, the recent territorial diffusion of plant species has been analyzed, searching for the spatial distribution, the altitude threshold and the phytoclimate area.

Information regarding arboreal species has been found in the book *Botanica Forestale* (Grossoni P. and Gellini R., 1996), while information regarding shrub-like species is found in *Gli arbusti della Toscana* (Clauser M., Foggi B., 2005). These data were compared to the *Map of Forest Vegetation of Tuscany* (Arrigoni P.v., Raffaelli M., Rizzotto M., Selvi F., Menicagli E., 1999), using both the maps and the georeferenced vector data.

For phytoclimatic area we mean the geographical distribution of a representative vegetation class, composed of homogeneous species with regard to climatic requirements. This classification of forest vegetation consists of the identification of climatic environments, which corresponds to the Latin name of a certain species whose presence is particularly significant. This model was developed by the Italian botanist Aldo Pavari in 1916 and is an adaptation to the Italian context of the scheme proposed by the German botanist Heinrich Mayr in 1906. The classification divides the Italian territory into five areas, each associated with the name of a representative plant species in which certain species grow (*Lauretum* from *Laurus nobilis L.*, laurel; *Castanetum* from *Castanea sativa* Miller, chestnut tree; *Fagetum* from *Fagus sylvatica L.*, beech tree; *Picetum* da *Picea abies L*, spruce; *Alpinetum*, *Alpi*, name that designates the highest of the mountain climatic zones) (Fig. 1).

Results

The territorial distribution of phytotoponyms shows a strong link with the current diffusion of the various species, giving even more importance to those cases of exception, especially if the species is absent because of vegetation limits. Therefore, the areas of distribution, toponymy and botany, coincide, and the discordant toponyms could indicate not the abundance of the plant but its exception, that is individual specimens or small colonies that have attracted the attention of the inhabitants.

Thanks to the creation of thematic maps, it was also possible to show the results obtained with such a research method. For 80% of the 88 phytotoponyms identified in the 19th century cadastre, that is the majority, it was found that the vegetation range of the mentioned species coincides with the geographical distribution of the plant species itself. But 14% of the phytotoponyms have an uncertain presence with regard to species distribution and only 6% have no relationship with the vegetation range (Fig.2).

Of the 61 phytotoponyms found on the IGMI maps, 77% coincide with the range of the indicated plants; 18% of phytotoponyms are uncertain, this is the case of crops and species planted temporally (for example, the name Campo Migliaio may indicate culture of millet, cultivated in the past to feed poultry and today almost absent in the area). The exceptions are only 5%, as for example the Abeto (silver fir), since in the past it was quite unlikely there was any presence of fir woods (Fig. 3).

Analyzing two cartographic sources of the same area referring to different centuries, it was also possible to identify toponyms (Fig. 4) that:

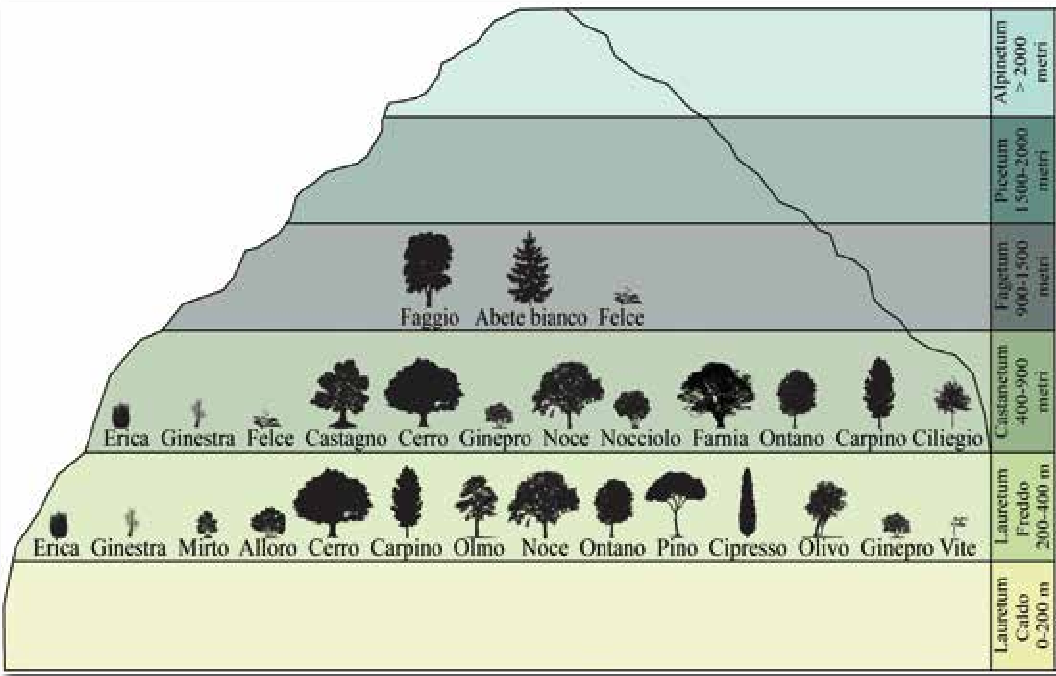

Fig. 1 - Schema of forest vegetation divided into phytoclimatic bands.

- over time have kept their name unchanged (16%);
- have undergone variations in the article, in the genre or in the number (18%);
- have been merged, a phenomenon likely to be attributed to the expansion of settlements and farms; in particular it is possible to notice that 15 of the phytotoponyms present in the 19th century cadastre can be found grouped together in five of the 20th century tablets;
- were born after the production of the 19th century land registers (22 %, neotoponyms);
- have disappeared, which constitute the majority (39 %).

Discussion

The territorial distribution of phytotoponyms shows a strong link with the current diffusion of the various species, giving even more importance to those cases of exception, especially if the species is absent because of vegetation growth limits. Therefore, the areas of distribution, toponymy and botany, coincide, and the discordant toponyms could indicate not the abundance of the plant but its exception, that is individual specimens or small colonies that have attracted the attention of the inhabitants.

Furthermore, by analyzing two different cartographic sources concerning different centuries, it was possible to find the toponyms that remained unchanged through time, those which changed name or simply the article, those which either

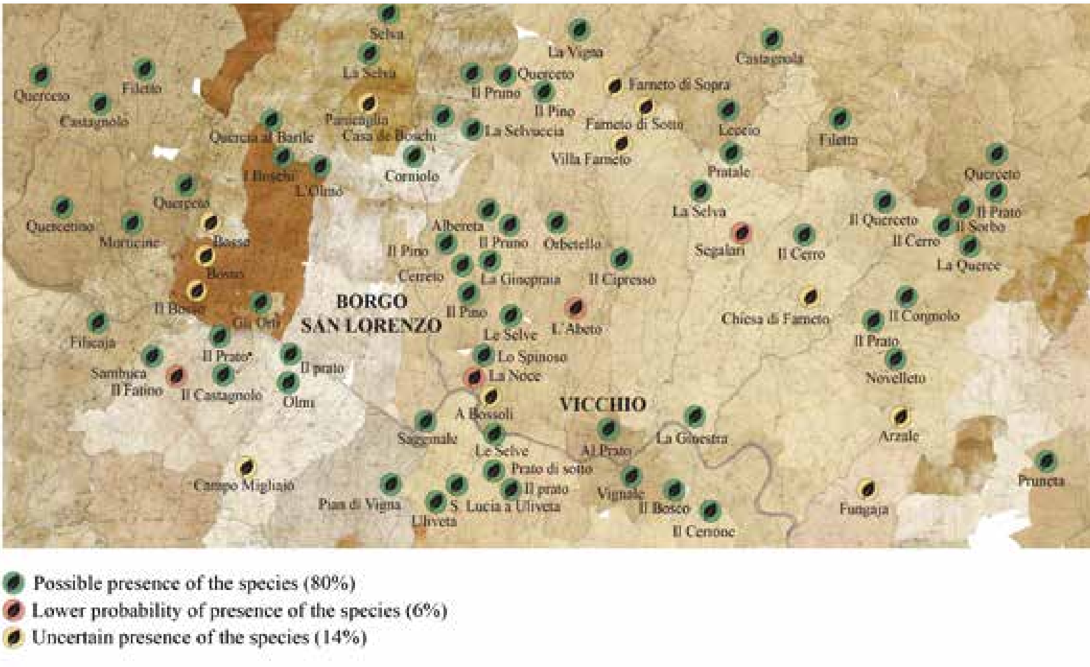

Fig. 2 - Percentage of presence the species indicated by phytotoponyms in 19th century Tuscan Land Register.

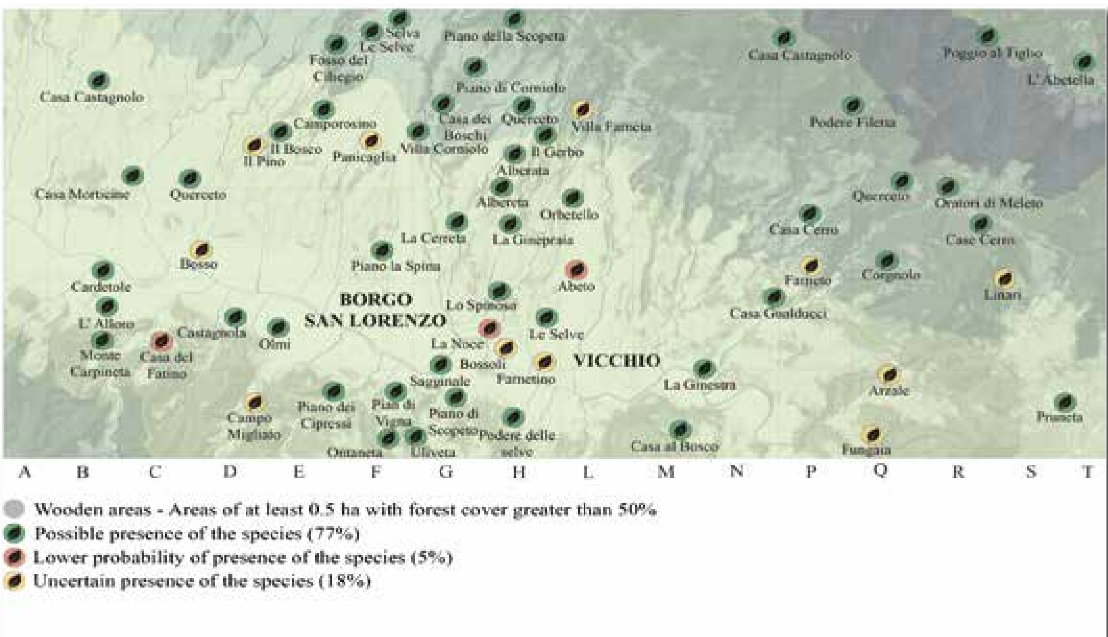

Fig. 3 - Percentage presence of the species indicated by phytotoponyms in 20th century Official Map of Italy by IGMI.

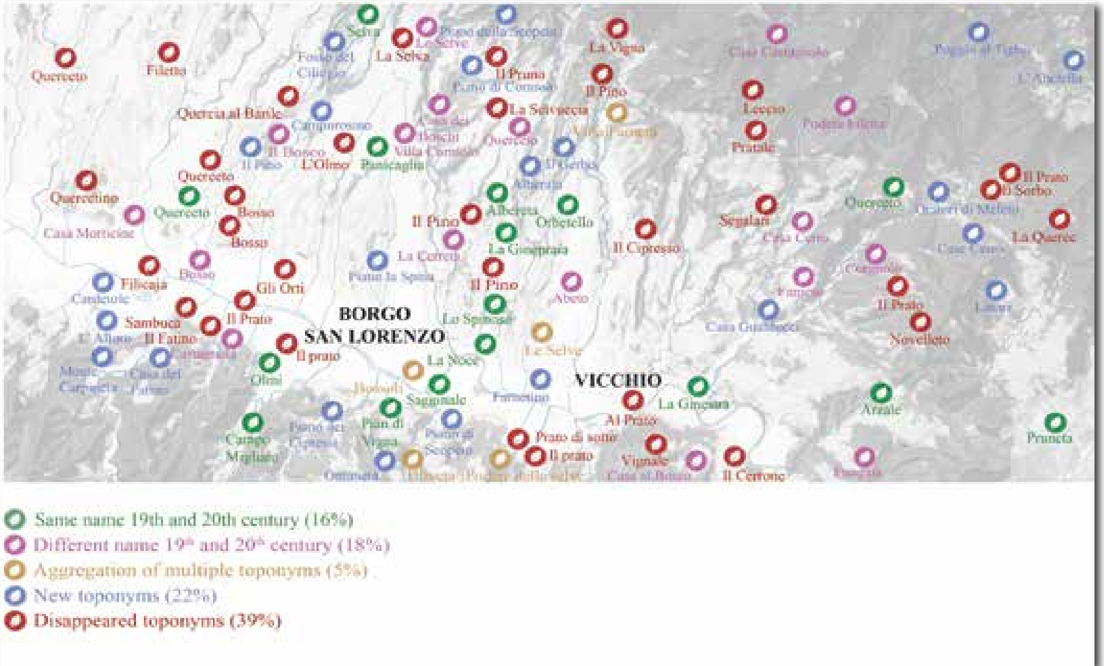

Fig. 4 - Percentages of change and disappearance of phytotoponyms in the 19th and 20th centuries.

disappeared or were born after the production of 19th century cadastre, and even those which were united. This phenomenon is probably due to the enlargement of settlements or farms. This analysis shows how much the study of toponymy is fundamental for historical reconstruction, not only concerning the etymology of the name itself, but also involving a large number of subjects and skills, and bringing to light transformations, habits and remarkable elements of the populations who lived in the past.

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Our thanks go to Professor Andrea Cantile, who made us understand the importance of historical maps, and toponymy in particular, as significant elements in interpreting human and landscape history. We want also to thank Professor Paolo Nanni for teaching us the basis of historical research, through making questions and looking for answers.

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