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Knowledge for the Enhancement between Memory and Contemporaneity: Pilgrim's Old and New Routes in Historical Maps (15th-19th Centuries)

Rombai, L.[*]
University of Florence (Italy)

ABSTRACT

The text analyses the cartography produced between the late Middle Ages and the Unification of Italy (and the Carta d'Italia of the Military Survey Office): among the most important categories of documented sources for the history of viability and the area. The original maps (almost all hand-drawn) prevail, drawn for the ancient states or upper classes for the purpose of military or civil management, control and enhancement of the territory. Beyond the metrics and topographic contents, the utilisation of historical maps requires research in public and private land registries of Italy and other countries, which is not always easy. It furthermore requires a rational critical evaluation of the products and with this the necessary contextualisation of administrative and political-economic-social strategic practice to which they belong.
The text addresses historical cartography (general maps of various scales and road types) used for the study of viability, including the numerous pilgrim routes that cross Tuscany from north to south, passing through the Appennino, through the crossings of Lunigiana and Valtiberina. The official Tuscan products, as well as those of its sub-regions and communities (whose road network is highlighted) stand out among others, and also singular street routes, particularly those drawn during the second half of the 18th century and the first decades of the 20th century when the geometric cadastre was completed. Almost all of them were needed to be able to rule the territory and often to plan and carry out important public work as well as modernisation of communication infrastructure.

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Keywords: Registries; Methodologies; Historical Cartography;

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[*] E-mail address: leonardo.rombai@unifi.it

Lo scritto analizza la cartografia prodotta fra tardo Medievo e Unità (e la Carta d'Italia dell'Istituto Geografico Militare): una categoria di fonti documentarie tra le più importanti per lo storico della viabilità e del territorio. Prevalgono le mappe originali (quasi sempre manoscritte), disegnate per conto degli antichi Stati o dei ceti dominanti, con obiettivi di conoscenza a fini di gestione civile o militare, controllo e valorizzazione del territorio. Al di là delle qualità metriche e dei contenuti topografici, l'utilizzazione delle mappe storiche richiede una ricerca non sempre agevole nelle conservatorie pubbliche e private d'Italia e di altri paesi; e, ancora di più, richiede un'accorta valutazione critica dei prodotti, con loro necessaria contestualizzazione nelle pratiche amministrative e nelle strategie politico-economico-sociali cui appartengono.

Lo scritto affronta i tipi cartografici storici (carte generali a varia scala e tematiche stradali), funzionali allo studio della viabilità, comprese le numerose vie di pellegrinaggio che attraversano la Toscana da Nord a Sud, con passaggio dell'Appennino ai valichi presenti fra Lunigiana e Valtiberina. Spiccano, tra i prodotti, quelli ufficiali della Toscana e delle sue subregioni o comunità (delle quali si evidenzia il sistema viario), e anche di singoli percorsi stradali, specialmente redatti nella seconda metà del XVIII e nei primi decenni del XX secolo, quando fu ultimato il catasto geometrico: quasi tutti servirono proprio per finalità di governo del territorio e spesso per progettare ed eseguire importanti lavori pubblici e di ammodernamento delle infrastrutture di comunicazione.

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Keywords: Conservatorie; Metodologie; Problematiche storico-cartografiche cartografico-storiche

Introduction.
Historical-cartographic and cartographic-historical registries, methodology and problems

As is known, cartography produced by public and private operators, starting from late-medieval times and above all of the Renaissance and modern period, is at present dispersed in countless registries, not only public – libraries and/or institutional, domestic or business archives – and located in the care of a rising number of collectors and antique booksellers. It goes without saying that, in Italy, it is only through systematic scrutiny, *in loco* or online or in the competent Sovrintendenza Archivistica Regionale (Regional Archivist Authority) of register inventories – starting from public registers, the richest and most accessible – that it will be possible to become acquainted with maps and cartography, in a chronological arrangement of the former and professional formation of the latter: elements which represent the necessary keys for a correct interpretation and use of historical maps.

The national study *Dizionario storico dei cartografi italiani (Historic Dictionary of Italian Cartographers)*/DISCI and the work on cartographers and cartographic entities (per la Toscana, Guarducci, a cura di, 2006) demonstrate that there is still much to do in order to identify and census registers and resources present in any region of Italy and abroad. This, in spite of the documented excavation taken place in the past three to four decades by cartography historians, archivists, librarians and academic scholars and not

only those who utilise graphical sources as foundations for research in geography, history, archaeology, city planning, morphology-hydrography, ecology-forestry, etc. Even from the perspective of a study (functional in the elaboration of plans and projects) about environmental assets, landscape heritage and natural and cultural assets.

Suffice to say that – for Tuscany – cartography is not only conserved to general resources and local cities and smaller Tuscan towns but also in many other Italian and European cities. Millions of cartographies, particularly those of administrative origins (manuscripts, apart from rare hard copies), attributable to the 15th to 19th centuries and including the maps of the nineteenth-century geometric cadastre, are registered in many libraries and local archives that cannot be listed here.

I limit myself to the ten National Archives, each of which conserves maps of the geometric cadastres relative to the respective province, and the political-administrative sources of the ancient offices that had power over the area and the overseeing of viability: in regards to state archives, those of great importance for access to other sources are those of Lucca[1], Firenze[2], Pisa[3], Siena[4], Pistoia[5], Massa[6] e Grosseto[7].

Important sources of varying origin, but rich with historical maps useful for research on viability, can also be found in the libraries of the Istituto Geografico Militare (Geographical Military Institute) (*map collection*) and the Nazionale Centrale di Firenze (National Centre of Florence) (*Geographical maps and New Accessions*) and in the provincial Uffici Tecnico Erariali, known today as the Agenzie delle Entrate (Internal Revenue Service), as well as the offices of Genio Civile, all decentralised state services active since 1862: the first, for management (with the necessary revisions of nineteenth-century cadastres) and the realisation of the new Italian cadastre between the 1930s and 1940s; the second, for the execution of public works, above all for waterways and routes of communication and for the control of community actions.

Evidently, the cartography entity of the Unitary state, the IGM of Florence (operating from 1861 onwards, initially with the denomination of Servizio Tecnico del Corpo di Stato Maggiore, 1861-72, and of Istituto Topografico Militare, 1872-82), possesses the fundamental *Carta Topografica d'Italia* (Topographic Map of Italy) identified between the 1870s and 1903, with a scale of 1:100.000, 1:50.000 and 1:25.000, and progressively revised on several occasions.

Many documents concerning my region (like all others) are conserved – for reasons essentially attributable to pre-Unified history – in out-of-region public archives[8] and in foreign archives[9], as indeed in countless Tuscan, non-Tuscan and foreign public libraries[10]. The same aristocratic and bourgeoisie families, public institutions and currently existing ancient laic charitable and religious institutes have archives and/or libraries consisting of spatial representations, particularly those relative to their founding heritage and real estate. An initial idea of the records present in out-of-state public registries and in notified private registries can be learned from the inventories (only in small numbers) possessed in the Archivist Authorities.

In this respect, most of the research must be conducted using cartographic resources as well as written that often conserve cartography, though in differing quantities. Moreover, more than a few recent studies, from the biographies of single cartographers (such as the Tuscan Ferdinando Morozzi, active in the second half of the 18th century) (Guarducci, 2008), to the geographic-historians focused on Tuscan

territories of differing dimensions (Rombai, Ciampi, 1979; Mazzanti, 1982; Rombai, 1995; Rombai, a cura di, 1990; Gallo, 1993; Stopani *et al.*, 1993; Bertuccelli Migliorini, Caccia, a cura di, 2006; Romiti, 2007) or on specific themes, for example the nineteenth-century Tuscan geometric cadastre (Guarducci, 2009), demonstrate the validity of the hypothesis in an exemplary method.

The problems a researcher must work through utilising the aforementioned category of recourses – for historic-territorial research (reconstructing territorial processes through time) or for geographic-actualistic (identifying the heritage of the past in the current framework of landscape and environment) and for archaeological or architectural research etc. – concerning, in essence: the knowledge of institutes that have produced or commissioned resources, which does not always mean the same current institutions that conserve documents, but those to which the identified resources are genetically tied. Recognising the objective of the production in question and of the possible correlation with other practices and writings (partially conserved or untraceable), should be analysed in an integrated way; knowledge of surveying techniques and instruments used to produce maps and – when possible – the professional route of the self-same experts.

Attempting to respond to the aforementioned questions signifies preparing the land for the correct research practices functional to the interpretation and evaluation criteria of the content and metric qualities of the maps, with the acknowledgement of the limits and omissions (sometimes even desired) in those present until at least the first half of the 19th century.

An important aspect concerns the different geometric quality of the cartography, in other words, the defective nature of pre-unitary cartography. The historiography demonstrates that, up until the 18th century and beyond, any general map of Italy and its regional states, printed or as a manuscript, invariably resulted as very defective; that is to say that any representation that attempted to be constructed before the first Renaissance with the rediscovery of Ptolemaic cartography, even for political contracting, but generally in a manner which predicted restricted budgets and development times, though with inspections on the land (occasionally with exceptional metric-topographic or astronomical original surveying) it was consistently imprecise: not exclusively and not due to the scarcity and quality of the topographic maps, but rather for the absolute lack of sufficiently exact astronomic identification and geodetic surveys which should have supplied an indispensable foundation for the construction of the self-same map.

Up until at least the second half of the 18th century, the various governments did not invest in instruments and operations able to give a modern astronomic-geodetic base to their cartography: only from then on were astronomic specula born – thanks to single scientific and academic merit – that were able to develop celestial observations (in Tuscany in Pisa, Florence and Siena; in Milanese in Brera; in Veneto in Padova; in the Pontifical State in Rome; in the Kingdom of the Two Sicilies in Pozzuoli-Napoli) and at times elaborate real triangulation projects and topographic surveys, to attain the construction of general representations on a state basis or town drawings.

On the other hand, the scientific underdevelopment of the rare pre-Unitarian chorographic cartography, printed or handwritten, resembles the authenticity of a lot of partial cartography which was created on a large scale, by hand, by the various

states which formed Italy, dated at least half way through the 16th century: a cartography which – contrary to chorographic cartography – was able to represent cities and territories of small dimensions with significant detail, with graphic efficacy and relative precision, with themes of greater political-environmental criticality expressed in places and areas.

This can be observed up until the geometric-particulate cadastres of the mid eighteenth century and the early nineteenth century and above all in the geodetic and Napoleonic topographic operations, or until cartography of a topographic-chorographic scale of the Savoy era, the Hapsburgs (of the Lombard-Veneto and the Ducato of Modena), the Bourbons of Parma and Lucca and the Lorrainers of the Grand Duchy of the Restoration age. These scales were produced with the necessary integration of astronomic-geodetic methods and frequently of geometric cadastration. (Cantile, 2013; e Rombai, 2013).

The aforementioned production was necessary for exclusively geopolitical objectives, particularly: the surveying of the position of territorial assets and the planning for their modification, in sectors such as the international borders and the municipal and provincial internal links (less often diocesan); the military/customs/sanitary control of islands, coasts and borders; arrangement and organisational works for river and canal water pumps and for the reclamation of marshland; the intervention of fortifications and residential areas or other locations and the communication infrastructures (including maritime, waterway and above all land); the management of territorial resources (public and private), such as agricultural-forestry and grazing, fishing, mining and manufacturing/industrial (salt mines included), also for tax purposes (geometric-particulate cadastres).

In this context, the creation of collective technical entities (institutional offices) can be explained, located in the administrative bureaucracy of the ancient Italian states: there was a plurality of entities everywhere with a lack of technical cartographic centralisation and consequently a fragmented production of thematic representations. The Republic of Venice was the first to promote numerous offices that launched the creation of maps of the territory, with various administrative and military objectives", to provide "an group of technical entities able to decide and accomplish operations on the territory": among them the waterway managers (particularly the *Savi ed Esecutori delle Acque* from 1501) who confronted the fragile relationship between cities and the lagoon and the correlated problems of the surface water systems, inevitably elaborating an immense cartographic production (Casti Moreschi, 1993, pp. 83, 91-92 e 94).

The Venetian model – which excluded the centralisation to a single technical authority which rationally served the requirements of all the offices – indicates the meticulous autonomy of magistrates originally organised by bodies of elected citizens or drawn by lot, thus explaining their lack of integration into a truly unitary body state. Even the small Republic of Lucca was no less than that of Venice, indeed between the fifteenth and sixteenth centuries until the Napoleon and Borbonic rule of the nineteenth century, the Republic founded many offices of differing expertise (with fragmentation between various entities of domains relative to the same matter) for the rule of the territory, including roads and bridges (Guarducci, a cura di, 2006). The well-structured institutional arrangement of the Florentine state (from 1532 Duchy of Florence and

from 1569 Grand duchy of Tuscany) – an acquaintance which appears indispensable to the promotion of the production of millions of cartographies and the work of hundreds of cartographers over various decades – was well described by scholar archivists of institutions such as Toccafondi and Vivoli (soprattutto in Rombai, a cura di, 1993; e Guarducci, a cura di, 2006). The organisational structure of the Grand Duchy state was reformed in depth in the Lorraine period (1737-1859) with the establishment of many other offices which, at least in part, acquired the duties of those eliminated. In the Kingdom of Naples, before the innovative and centralised Officio Topografico di Giovanni Antonio Rizzi Zannoni (Topographic Office of Giovanni Antonio Rizzi Zannoni) (1781), the Regia Dogana della Mena delle Pecore excelled in the second half of the XVI century with its 'compassatori' authors of maps of sheep tracks and grazing areas, mainly conserved in the State Archives of Foggia (Valerio, 1993). However, in time the other Italian states provided modern structures in continuingly varied technical-administrative bureaucracies.

It is evident that this composite reality which articulates the development and consolidation of the modern state (16th and 17th centuries) and continues to the 18th century – together with the change in denomination and conferment of duties – requires a preliminary census of institutional operative subjects to be conducted from a political-institutional perspective: thus to bring the events of each entity to light, as well as the scope of its administrative abilities, the bureaucratic organisation and professional preparation of employed technical figures or of external figures[11]. In terms of historical cartography the varied categories of administrative cartographic documents of pre-Unified Italy were foregone by the specific historiography of the late nineteenth and early twentieth centuries, compared to the erudite production represented by the late-medieval and Renaissance 'monuments' (nautical and Ptolemaic monuments in particular) and the much more numerous geographical, chorographical or city cartography (generally printed), drafted in the modern age for commercial purposes. The scarce attention given to administrative cartography is due to the rarity of specific inventories and catalogues at the time, both printed and hand written. It is only in recent years that librarians and archivists have committed to the drafting of many cataloguing instruments and to the construction of freely accessible databases; thus, in the joint objective to better conserve documents (impeded from consultation, once recorded and reproduced) and to facilitate awareness of the use of the aforementioned instruments for scientific, professional and didactic-educational work[12].

Such initiatives are valid also for Tuscany, for the broadening of frameworks of knowledge on the production of the pre-Unitarian states – as well as the connection of the current era between cartographic bodies and cognitive, strategic and actionable requirements of governments and local administrations – or for the focus on personality and the technical work of single cartographers (Guarducci, 2003). The dispersal between more registries generally produced the division of cartographic works in those of Unitarian origins and the separation of cartography of a political-cultural context (of administrative practices), or of Teoric-practical functions to which they originally referred to. From here it is necessary to recreate an organic connection between graphical and written representations: a procedure which requires the

application of a correct exegesis, or rather a professional critical analysis of cartographic categories (administrative and scientific-cultural) that precede the few (and not always successful) experiments in creating topographic maps of pre-Unitarian states from the Risorgimento, and the experiment to realise a *Carta Topografica d'Italia* (Topographic Map of Italy) successfully conducted between the nineteenth and twentieth centuries by the IGM (Road Traffic Inspectorate), as well as the realisation of the category produced for private or commercial purposes, that is rather less original and important relative to the others.

The administrative objective of historical cartography is connected to the specificity of its contents. We are indeed in the presence of graphical products that are easy to collect – rather than general maps of the territory – such as distinctive figures, for which determined contents were intentionally selected which were the basis of the political or technical-scientific project for the creation of the map itself. However once the partial or subjective aspect has come to light with the proper critical attention which a scholar must reserve for every document to try, impossible as it seems, to cleanse it of mistakes, inaccuracies and misinterpretation, voluntary or otherwise, it is necessary to consider past maps as matters of value to current scholars. Their importance cannot be recognised, together with the awareness that they must not be utilised as exclusive sources: a caution which applies to all documents, included therein the contemporary scientific cartographies on a larger topographic scale, such as the *Carta Topografica d'Italia* (Topographic Map of Italy) IGM and the more detailed regional technical maps.

These products in relation to those of the past qualify for their own aseptic or incontestability: the contemporary figures are precise on a geometric level, but often miserly with matters of social conditions, landscape-environmental perceptions and destinations of spatial assets used by inhabitants that no longer animate the self-same representations, which is what occurred until the first half of the 19th century.

The scientific use of the cartography of the past is today remarkable in various disciplinary sectors.

It is the case to underline the importance of historic-cartographic research in relation to the rising scientific-cultural, didactic-educational and administrative demand to deepen knowledge of the environment, landscape and territory in historical and current organisations, such as those guaranteed by analysis contextualised by the spatial reality of each era. Regarding the content potentiality of cartography (of iconographic value), for the purposes of a territorial illustration, I will not be examining the critical literature that has gained advantage from the systematic use of said resources: with the deserved exception of the illuminating considerations made by Lucio Gambi of the administrative, cabalistic and cadastral cartography of Emilia Romagna, in his writing of the 1995 re-issue of the summary of Luciano Lago (2002, pp. 402-416).

For a long time, state topographic maps (of the recent past or current times, together with aerial photographs) – integrated with the previous similar series and the cartography of the 15th to 19th centuries, that does not possess reassuring geometric qualities – have constituted fundamental instruments and resources for the work of geographers, naturalists, architects and historians of territorial, environmental and archaeological dynamics: non only for topographical contents (and for toponomous

and functional contents), but also because the geometric representations are valid in giving value to a range of other resources (written, oral and object-based): that is to say, they are needed for precise orientation on the land and for the use of the same representations as a basis for an ordinate system of data, from a perspective of spatial-temporal research. Indeed, researchers, professional technicians and administrators today refer themselves to the *Carta Topografica d'Italia* – a tool that expresses its own importance if seen comparatively, that is, with the integration of various versions created after the first was finished in 1903 – or to technical regional or cadastre maps, in addition to aerial and satellite photographs, but also to previous cartographic representations (and territorial iconographies) to use such documents – progressively noted through monographs, archives and catalogues of exhibitions, inventories and online censuses – in studies and expository activities that are valued for their diffusion of an aware culture of the territory, and particularly of its historical and natural heritage (Guarducci, Rombai, 2016).

The correct knowledge of cartography – that assumes the dissolution of complex problems such as dating, attribution, functioning, purchasing, constructive and reproductive techniques – can even enable the recovery/identification of human dwellings that have been lost or forgotten, created in a prehistoric and protohistoric, ancient and medieval, modern and contemporary era. Indeed, usually the graphical representation of precisely aged artefacts or remains of artefacts (residential and productive settlements, roads, canals or fluvial palaeochannels, agricultural parcels, grazing and forestry formation or woodland characteristics, caves or mines etc.), often equipped by their respective toponyms or by the terms remains/ruins of which, not uncommonly, the contemporary generations had already forgotten about.

Of the critical literature that has gained advantage from the systematic use of such resources, it is enough to mention the exemplary geohistorical studies of Diego Moreno and collaborators on the mountain of Liguria, with focus on the archaeological-landscape artefacts related to the context of the social practices of activation, control and reproduction of environmental resources (Moreno, 1990). Recalling the cases of fruitful utilisation of cartography from town planning architects and historians of the city and the territory would be difficult (the noted example of monographs in "La città nella storia d'Italia" is enough); of *tout court* historians (beginning with the *princeps* example on the Italian landscape by Emilio Sereni in 1961); of archaeologists (with Riccardo Francovich who drew close to the history of cartography, studying Morozzi and the late Renaissance map of Tuscany and Piedmont to draw contents regarding the network of existent or missing medieval dwellings) (Francovich, 1976 e 1978); of geographic physicists and geomorphologists (with Renzo Mazzanti who became an esteemed specialist of cartographic history necessary for his work on the geodynamic coast and rivers) (Mazzanti, 1982; Mazzanti, Pasquinucci, 1983; Mazzanti, Pult Quaglia, 1986; Mazzanti, Sbrilli, 1991); historians of forests and of agro-sylvo-pastoral economies, as the works of Pietro Piussi on Tuscany well demonstrate, beginning from research on the forest of the Pianora nel Valdarno di Sotto farm, for which corporate map collections and plants from the 17th to 19th centuries were utilised (Piussi, Stiavelli, 1986).

Cartography was utilised extensively, with positive results for the purpose of recognising the ancient road layouts[13]; the location of abandoned and missing dwellings[14] and for the productive mining and medieval metallurgical enterprises[15].

The 'canonical' resources that are able to globally represent all the Italian and Tuscan territories in synchronisation on a municipal scale reduce themselves, in practice, to the different versions of the *Carta Topografica d'Italia* (Topographic Map of Italy); the maps have a scale of 1:2500 (for mountainous areas a scale of 1:5000) of the geometric-particle cadastre of the nineteenth century, along with the municipal index maps on a smaller scale; and finally the maps of a 1:2000 scale – with an index map of 20.000 – of the Italian land cadastre (system of the late 30s or the 40s of the 20th century), the last registered in the provincial Uffici Tecnici Erariali (Technical Revenue Offices), now known as the Agenzie delle Entrate (Internal Revenue Service). Evidently, when considering IGM cartography, the two cadastres (easily comparable among themselves), result richer in their greater detail and toponymical content. The outstanding importance is then assumed by the cabrei (map collections of estate heritage of the 16th to 19th centuries) (Ginori Lisci, 1978), as demonstrated by the representations of Tuscan farms and their coordination of small farms and sharecropping.

1. Old and new practicability (with particular regard to pilgrim routes)

In order to firstly compile a database and possibly a map, then a historic road system of *"pilgrim routes and holy places in Tuscany"* in particular, much work remains to be done on documented sources, starting with maps, as well as on land. Studies that consider cartography relative to viability and road networks as an ensemble do not exist, in particular those on the *vie romee* with structures created for the purpose of traffic support (and sometimes pilgrim hospitality) of the quintessential Tuscan *area-strada*: that is to say, the Apuan and Lucchese territories with the Magra and del Serchio valley, the Versilia and the plain of Lucca, and the territory which corresponds greatly to the historic Florentine *contado,* which is occupied by the *Dominante* cities that – from at least the second half of the 14th century – also includes Pistoia and Prato to the west and Arezzo to the east, as well as Mugello-Val di Sieve, Val di Greve, Val di Pesa, Val d'Elsa and inland Valdarno (above and below and not only in the middle sector which directly enchases the capital).

For this research the attainment of necessary analysis in archives and libraries and on the land (integrating historical-documented resources with the field survey) is essential, this last method has already been experimented with success by various European countries, with the participation of geographers, historians, archaeologists, and architectural and art historians, to census the *vie romee* with buildings of worship (sanctuaries and other territorial evidence connected to the support of believers, such as hospitals and houses, abbeys and convents, parishes and canonical churches etc.).

In Tuscany, the multiple research initiatives on the viability that have been present for several decades in relation to the 2002 *Giubileo* refer, primarily to the now well-known *Via Francigena* (fundamental works include that of Stopani, 1984; Vanni, Bassini, 1995), particularly in the well investigated Valdostan tract, by far the main (if not only) pilgrim

route of the Dark Ages until the 12th century included.

More recently, the other *vie romee* have gradually been studied too: such as the eastern routes, which pass over the Appennino at the Alpe di Serra (and at the Camaldoli and Badia Prataglia crossings) between Romagna, Casentino and Valtiberina, to lastly reach Arezzo and head for the Valdichiana (routes already documented in the 10th to 11th centuries) (Stopani, 1997; e Bacci, 2002). Similar to the various shorter and more direct "vie Bolognesi-Romagnole" to Florence and Siena, already existent as feudal arterial toll roads from at least the 11th and 12th centuries were: the Faentina, the via Forlivese di San Godenzo-Dicomano, the Bolognese to the crossing of the Osteria Bruciata between Cornacchiaia and Sant'Agata (we need only recall the testimony of Bishop Passau and patriarch Aquileia Wolfger in circa 1200, or that of the more complete pilgrim guide from half way through the thirteenth century, the *Annales Stadenses auctore Alberto*) (Stopani, 1991) and the Bolognese crossing of Stale, named after the Cistercian hospital built before the eleventh century just west of the Futa adjacent to the abbey of San Salvatore, which derived from Pietramala as well as Bruscoli and continued to Barberino di Mugello and Sesto Fiorentino; or the other open or maintained routes from the city at the end of the 13th century and the beginning of the 14th century (like the Bolognese crossing of Giogo between Firenzuola and Scarperia) (Sterpos, 1961; e Ciampi, 1987).

Even further west other tras-Appenine roads were traversed by pilgrims. Testimonies – which, rather than taking the Via Francigena, preferred to opt for routes that various resources denominate *romei* – concern the routes that connected Bologna and Pistoia, the ancient routes of Lizzano and Batoni to the Lima valley, of Sasso to the Reno valley, of Sambuca to the Limentra valley, also named the *Francigena* or *Francesca*, of the abbey of Taona or the hospital of Croce Brandegliana (*La viabilità tra Bologna e Firenze nel tempo*, 1992)[16]; or that which connected Bologna to Prato (for the Montepiano crossing) and from there to Florence. Matthew Paris' route from London to the Holy Land of 1253 unequivocally demonstrates that Florence was already so important as to justify specific deviations from the Francigena and the via dell'Alpe di Serra, respectively, both on the outward journey and the return (Stopani, 1991, p. 19 ss.); as the King of France, Philip III did in 1271 on his return from Rome (Stopani, 1997, p. 15).

In 1527, according to the ambassador of Veneto, Marco Foscari, four of these *vie* could carry armies "from the Lombard section" to Florence, despite being "all very difficult and harsh. The first is that of Pontremoli [for the passo della Cisa], which leads to the plain of Lucca, carried out by Carlo VIII, King of France, in 1494. The second *passo* is that of Garfagnana [for the Foce delle Radici and San Pellegrino in Alpe] for its mountains owned by the Honourable Signor Duke of Ferrara, the path of which also leads to the plain of Lucca carried out by the Honourable Duke of Albany in 1524, while proceeding towards Naples, when His Holiness King Francesco found himself at the siege of Pavia, the Duke of which […] even though they came with only 60 spears and 6000 foot soldiers, nevertheless suffered greatly from provisions. The third route is that of the Sasso valley [Val di Setta for Montefredente, Bruscoli and the passo dello Stale, today Futa] that leads to Barberino and then to the plain of Prato, which leads to Florence; and along this route travelled the Medici, namely the quondam Pope Leone, cardinal at the time, and Pope Clemente in minoribus, with Giuliano de' Medici and the others in 1512 with six or seven thousand foot soldiers with only Raimondo di Cardona,

viceroy of Naples at the siege of Prato. The fourth route goes straight from Bologna to Firenzuola and Scarperia, and leads to the plain of Florence, worse than the three others aforementioned" (Ciampi, 1987, pp. 5-36).

Daniele Sterpos broadens the records, for the 16th century, of the Reno valley, they crossed the Pistoiese-Bolognese mountain in Sambuca and Porretta; to the Bolognese route which from Prato and Bisenzio aims towards Bologna to Castiglion dei Gatti, today Pepoli and to the valleys of Setta and Reno; to the various tracts that connect Faenza and the stairs of Romagna to Florence (to the Lamone valley, the Colla di Casaglia and Borgo San Lorenzo and to the Castrocaro valley, the Muraglione and San Godenzo), as well as Casentino and Valtiberina, proceeding from there to Arezzo (Sterpos, 1961, pp. 67-106; Rombai, Sorelli, 1985, pp. 37-38).

Other muleteers also found themselves in the west, where they climbed or descended to the crossings of Lunigiana and Garafagnana. In the first basin a road existed which connected the region of Emilia Romagna to the Massa territory, beginning in Reggio Emilia, passing through Castelnuovo ne' Monti, the passo del Cerreto, Fivizzano, Fosdinovo and Caniparola leading to Massa through the *via postale* (Armanini, 2006, p. 70; e Pellegrinetti, 1987, pp. 136-137). In the second basin, we are reminded of the roman road *Bubulca* Lucca-San Pellegrino in Alpe Modena, which followed various routes (Santini, 1989, p. 151).

The Casentino was even traversed from north to south along a very popular trans-Alpennine road which, in the 12th to 13th centuries, was considered "the best route" (*Annales Stadenses*) between Bologna and Rome: the *roman* or *romea* road of the Alpe di Serra, originating in Bagno di Romagna and descending to the upper valley of the Arno, keeping to the hydrographic left, in Biforco, Campi di Bibbiena, Rassina-Ponte in Socana, Santa Mama, Subbiano, Ponte Caliano, Marcena-Castelnuovo, Giovi, Ponte alla Chiassa and Arezzo (Bacci, 2002).

In any case, Lucca, Pistoia, Prato and Florence were almost obligatory legs for pilgrims, at least for the Giacomei routes, because conserved there were reliquaries connected to Saint James (Muzzi, Stopani, Szabo, 1978; e Stopani, 1991).

Beginning from at least half way through the 13th century and essentially for the entire modern era, particularly on the occasion of the Jubilees, Florence – having become the capital city of Tuscany and central Italy and one of the main cities of the west, economically and demographically – was an almost obligatory staging point for the numerous pilgrim routes that, from the Apennine crossings, channelled the *romei* originating from the regions of Padania and Veneto (and through them, from mid-west and northern Europe), through various roads which merged into Siena, towards the Christian capital (Stopani, 1991). With time, it gave life – through operations planned by its notable political and religious institutions and established understandings with foreign hospital and chivalric entities – to a notable system of helpful structures designed to host the masses of pilgrims[17].

As far as the routes south of Florence are concerned, despite some examples of travellers who opted for the Valdarno di Sopra and the Arezzo roads (such as Bertrandon de la Broquière, lord of Vieil-Chastel, travelling to the Holy Land in 1432), there is no doubt that the real route which pilgrims from all over Europe followed in the late Middle Ages and modern era is the so-called *strada regia romana* (known as *statale* Cassia) to San Casciano and Tavarnelle Val di Pesa, Sambuca, San Donato in

Poggio and Castellina in Chianti which (thanks to its capillary-like help system for travellers) continued to be utilised through to the 15th and 16th centuries and beyond: for example, in 1480 it was of service to an anonymous French pilgrim (Stopani, 1984 e 1991, p. 160).

Up until half way through the 18th century there were no marked innovations in municipal road structure, and saw a network of public roads packed but not hierarchical, and often fragmented, made up of mule tracks and pedestrian paths coactively maintained by the community and local municipalities, perpetually in need of restorations and improvements for their marked technical poverty: the rarefaction of bridges, roads with natural foundations and lacking water defences (such as withstanding walls, gutters and drainage systems). In winter, almost all the mountainous and high-altitude roads experienced conditions which rendered them impassable or risk ridden, they were thus utilised at a very slow pace and with high costs (particularly for goods transported on mules or sledges).

From the mid-eighteenth century, a real, albeit gradual, revolution began, at least partially documented by cartography and project memoirs for the opening of new viable routes that often reutilised the ancient routes. That is: the Vandelli from Modena to Massa to Sassuolo-Pavullo in Frignano-Castiglione of Garfagnana-Pieve to Fosciana-Vagli-Resceto, with the passage of San Pellegrino in Alpe, the Radici and Monte Tambura, commissioned by Duke Francesco III of Este to the mathematician and geographer Domenico Vandelli, between 1738-39 and 1752 (Pellegrini M., Pozzi FM, a cura di, 1987; *La Via Vandelli: strada ducale del Settecento da Modena a Massa*, 2001; Pellegrini, Pozzi, a cura di, 1989) and the Bolognese della Futa from Bologna to Florence, built by the new sovereigns, Francesco Stefano of Lorena and Maria Teresa of Asburgo, between 1749 and 1752; the Pistoia-Modena dell'Abetone, constructed by the Duchy of Modena and the Grand Duchy with bridges and monumental posts between 1766-67 and 1778-79; and the Romagnola Florence-Forlì del Muraglione, constructed in two instances in 1782-87 (together with the Pontassieve-Consuma-Casentino or road of the three sanctuaries of Vallombrosa, Camaldoli and Verna) and in 1832-36.

During the Napoleonic era, the three new trans-Apennine routes were planned and launched, the passo della Cisa from Parma to Pontremoli and Sarzana, the passo del Cerreto from Reggio Emilia to Aulla and the passo di Bocca Trabaria from Arezzo to Urbino, but were realised at a slow pace, interruptions and resumptions occurred between the 1920s and the 1930s (Lera, Lera, 2006, p.16).

In 1819, the isolation of the Lucchesia (the plain of Lucca) in relation to commercial relations with the Po Valley[18] explains the construction of the Lucca-Modena route to the Val Fegana or Foce a Giovo, through the adaptation of one of the mule tracks that from Fiumalbo and Pievepelago merges into the Foce a Giovo, accessible from the Bagni di Lucca[19].

The Florence-Faenza route to Borgo San Lorenzo and Colla di Casaglia was made viable – after the first works were launched in 1816 – in the '30s and '40s, together with the old Bolognese of Scarperia-Firenzuola to Giogo (Sterpos, 1981).

The Porrettana road between Pistoia and Bologna to the Passo della Collina was constructed in two phases: between 1816 and 1843, the Bolognese tract; and between 1842 and 1847, the Pistoia stretch named Leopolda. It was realised privately - as a toll

road - by a company formed by Pistoia landowners. On the papal side however, from 1812, work on the project of engineer Giovan Battista Martinetti, began between Sasso and Porretta, which interweaved the valley floor of the Rhine.

The road connecting Pescia and the Pesciatino with the Pistoiese mountain and the Modenese in the area of San Marcello, that is, the Traversa Vellano-Mammiano to Momigno, Prunetta and Piteglio, was opened in 1840-48 but was yet to be completed in the summer of 1852, when it was traversed by Leopold II.

Other trans-Apennine roads were built by the Kingdom of Italy in the second half of the nineteenth century: these are the roads of Licciana Nardi and Lagastrello in Lunigiana between Aulla and Parma to Licciana-Varano (built in the 1960s and declared provincial in 1867); of Val di Reno connecting the Porrettana and the Ximeniana-Modenese between Ponte alla Venturina, Pracchia and Pontepetri (built in 1878-81); of Castiglion dei Pepoli to Prato and the valleys of Setta and Bisenzio through the Montepiano crossing (built between the 60s and 80s); of the Adriatic routes of Mandrioli between Bagno di Romagna and Bibbiena in Casentino (opened in 1879-80) and of Montecoronaro or Verghereto between Bagno di Romagna and Pieve Santo Stefano in the upper Valtiberina (built between 1881 and the First World War) (Borgi, 1977).

2. Maps and roads in Tuscany

During the second half of the fifteenth century – thanks to the rediscovery of the Ptolemaic scientific models – a regional map production was already launched, which benefitted from the invention of printing to gain the attention of the humanists and the Italian and European market in general, with further great development during the 16th century, when Italian cartographers are introduced (including Giacomo Gastaldi and Giovanni Antonio Magini) as well as Flemish publishers (above all Abramo Ortelio and Gerardo Mercatore), and authors of chorographic map collections that had immense editorial success. Almost all the products – even those on a larger scale and therefore in more detail, including the great pictorial cycle of Italian regions drawn by Egnazio Danti in the Vatican Palaces – introduce, however, a singular absence, which concerns the viability of routes, this evidently considered component of strategic value that the various state governments refused to authorise.

Apart from few exceptions of little interest regarding the reliability of roads, it is only around the middle of the eighteenth century that the first modern maps appear, much more precise than those of the sixteenth century (which continued, however, until at least the first half of the eighteenth century), and extended to consider not only of the settlements but the main roads, starting from postal ones[20].

Since then, the regional maps were no longer drawn, exclusively at the table, for editorial-commercial purposes, but to become state products, not necessarily engraved and printed – indeed more often left as manuscripts and used only in public administration[21] – and the result of general astronomical and geodetic acquisitions and particularly of direct topographic surveys (usually still very partial) of the territory by engineer architects or governmental scientists, activated by the Regency in Tuscany. Indeed, starting from 1750, the objective was to realise the Geographical Map – as was done in France, between the seventeenth and eighteenth centuries, with the Cassini

and Re Sole – given to the mathematician Leonardo Ximenes. To determine the most exact positions in latitude and longitude of Florence and other Tuscan cities, Ximenes focused on astronomical observations and founded the Ximenian Observatory in Florence, he restored the gnomon of Paolo dal Pozzo Toscanelli in the cathedral of Santa Maria del Fiore, but soon he realised – comforted by the opinions of other mathematicians Tommaso Perelli and Pietro Ferroni – that astronomy alone was not enough to achieve this great undertaking; thus, from the mid-seventies onwards he proposed to Pietro Leopoldo to link the construction of the Tuscan map to the realisation of the particulate geometric cadastre, a business established in 1778 but was unfortunately interrupted in 1785 (after some significant achievements in the Pistoiese mountain, in the Valdinievole and in various communities of the Sienese) due to opposition to their vast holdings of land (Guarducci, 2009).

Despite the failure of the company, the maps produced in the second half of the eighteenth century introduce considerable innovations that are justified by the fact that they are now considered – more than in the past – functional to the needs of knowledge and state planning, thanks to the new Lorraine domination.

The innovations are sure enough evident not only in large-scale cartography but now also in the maps of the whole of Tuscany, as shown by the great scale figure of 1:78.850 completed in 1784 (after more than thirty years of work, above all topographic , in addition to some astronomical and geodetic surveys) by the state technician Ferdinando Morozzi and dedicated to the Grand Duke Pietro Leopoldo (NAP, RAT *Map* 146): in practice, this representation with a refined design and rich in landscape embellishments constitutes the synthesis of about 45 scale maps much more relative to the group of vicarial provinces gathered in atlases and censuses and even in the rich system of viability.

Relevant chorographic products, in terms of territorial content represented – although still imperfect on a metric and topographical level -, are also: private to the geographer and cartographer Bartolomeo Borghi of 1783-99 (NAP, *RAT Map* 131 e 36/a), with the first figure a geo-historical reconstruction of antiquity and the second one which specifically focuses on the Tuscan "natural productions" (quarries, mines or thermal waters listed on the left), as well as on roads, settlements and many regional names.

The public products of scholars and civil servants of the Lorraine and Napoleonic eras appear to be substantial: starting with that of the grand-ducal engineer Andrea Dolcini, manuscript dated 1755, which shows the feuds (soon to be lost), the administrative jersey, the state borders, customs, fortresses and military distances of each jurisdiction with respect to the cities of Florence and Siena, with the identification above all of the guarded and unguarded fortresses, the cavalry surveillance booths and those of the health office, cities, of the small centres so-called "lands", of the castles, of the great ports and of the small docks, of the bishop's seats, of the provincial centres, of the post offices, of the roadways and of those for animals (NAP, *RAT Map* 151) ; of the other state technician Francesco Giachi, a manuscript of 1780 with a list of the ancient feuds of Tuscany (17 in the Florentine State, 12 in the Pisano and 26 in the Sienese), as well as the other topographical components (NAP, *RAT Map* 150) ; of the then imperial geographers Giovanni De Baillou, manuscript of 1804, a beautiful product built with a scientific method (calculation of geographical coordinates), although still far from being considered geometric (NAP, *RAT Map* 37); and above all the brothers Benedetto and

Gaudenzio Bordiga, operating in the Napoleonic Deposit of the War of Milan, print of 1806 on a scale of 1:202,000 (NAP, *RAT Map* 3-5, 9-16, 18-20, 47bis, 387 e 467) .

However, in order to have a completely geometric map of Tuscany, it is necessary to await the completion of the operations of the Ferdinand-Leopold particle cadastre and of the related geodesic measurements, produced by the Florentine scientist Giovanni Inghirami: in 1831, on behalf of the Grand Duke Leopold II, he printed his geometric map of Tuscany on a scale of 1,200,000 in 4 sheets (innumerevoli copie in NAP, *RAT Map* 349, 350, 360, 361, ecc.), after having also drawn the magnification to 100,000, remained manuscript , in 60 sections (NAP, *RAT Map* 362), product of very important documented interest for the rich content system inscribed therein, also concerning the minor road network and the isolated locations (Guarducci, 2016; e Guarducci, Rombai, 2015).

Since then, the figure at 200,000 - especially in the 400,000 reductions of Girolamo Segato in 1831, in 1832, in 1833 and in 1844 (NAP, *RAT Map* 66 e 456); to 510,000 by Gaspero Manetti in 1834 and 1846 (NAP, *RAT Map* 355, 418/a, 422-423, 425 e 427-430); to 660,000 by Attilio Zuccagni Orlandini in 1832 and 1844-45 (NAP, *RAT Map* 39), using the bases of the engravers and draftsmen Pozzi, Maina and Angeli of the late '30s; and at 525,000 Fulvio Cocchi in 1850 (NAP, *RAT Map* 120 e 431-435) – met exceptional public success and also served as a basis for drawing the most diverse maps, to be used for administrative purposes by the political state: as the 200,000 of Inghirami also demonstrates, it depicts the compartments with their articulation in vicariates and *potestrie* (NAP, *RAT Map* 349).

To easily unite states dependent on the Habsburg Family (Empire of Austria, Lombardy, Duchy of Modena and Grand Duchy), all the Lorraine grand dukes (1737-1800 and 1814-59) were great builders of modern viable roads conceived in their military value but above all as authentic engines of economic and civil progress: the aim was to connect Livorno and Florence to each other with the various provinces of the Grand Duchy and this, in its entirety, with neighbouring states, particularly beyond the Apennine barrier, gradually broken from the Bolognese della Futa, from the Modenese of Abetone, from the Romagnola del Muraglione, from the Marchigian of Bocca Trabaria and others (such as the Faentina and the Bolognese del Giogo, the Cisa, the Porrettana and the Marchigiana): all arterial roads directed to the cities of the Po valley and to the Adriatic ports. These modern roads were equipped and served, in decent numbers, by hotel and customs posts, as well as by bridges, sewers and walls to support the land or shelter from the winds in the crossing zones.

Generally, the Pietro-Leopold community reform produced by the *Regulations* of the 70s of the 18th century was an opportunity to force the new local administrations to produce the census – with descriptions or atlases of maps dedicated to each street[22] – of all public roads. This important operation was also designed to replace a cartographic work of exception, such as the ancient and now outdated road atlas made by the Capitani di Parte in 1582-86 with considers about 500 communities of the Florentine State (ASF, *Piante dei Capitani di Parte*, T. 121 / I-II).

By now in 1747 an anonymous officer of the Lorraine General Staff had accurately recorded, but only in writing, the dense network of crossings (mule tracks and paths)

for the Padano-Adriatic region in the long Apennine arch between Boscolungo-Abetone and Casentino[23]. Another important operation, functional not only to the tourist use of the territory, was that performed by the grand-ducal cartographer Antonio Giachi, in around 1760: that is to say, the census and the reproduction, in the form of a small atlas, today preserved in the Biblioteca dell'Istituto Geografico Militare (Library of the Geographic Military Institute), entitled *la Guida per viaggiare la Toscana* (the Guide for traveling through Tuscany), of the 16 main roads – with mule tracks that prevailed clearly on the viable roads – that united in Florence among them the cities of the Grand Duchy (Cantile, edited by, 2002). Also worthy of note is the manuscript map of Tuscany of the mid-eighteenth century with the main roads utilised by hospitals for the poor and for pilgrims, which considers the Francigena, the Bolognese to the Porretta-Pistoia, Vaiano-Prato and Firenzuola-Florence, the Romagnola to San Godenzo-Florence, in addition to the routes of Florence-Pisa-Livorno (with continuation to the Maremma), Florence-Pistoia-Lucca, Florence-Incisa-Arezzo-Perugia, Florence-Siena (ASF, *Scrittoio delle Fabbriche Granducali, Fabbriche Lorenesi*, cartone V, c.52).

The body of the figures produced to plan or execute road works is notable, beginning with two significant representations that are aimed to increase commercial traffic between Livorno and Florence, on the one hand and the Padania-Adriatic Italy on the other : concerning the anonymous map of 1746 (*A map of a part of the border of Tuscany towards Tramontana with all its viable and non-viable roadways drawn with recurrent diligence in the summer of the year MDCCXLVI*), which frames the north-west of Tuscany with the main communication routes connecting the port of Livorno with Padania and Adriatic areas (NAP, *RAT Map* 72); and of the much more precise map of 1790-91 (*Map of Part of the Grand Duchy of Tuscany and of the State of the Church, especially outlined by the light and rule of projects concerning the road of communication uniting the two seas*) – designed under the direction of the mathematician Pietro Ferroni – which embraces Florence and north-eastern Tuscany, highlighting the roads of Romagna to the Adriatic ports, as part of the design of the first road between the capital and the distant but important seaports (NAP, *RAT Map* 123).

The functions of other significant maps of the second half of the 18th century appear to be similar: that of the system of roads and waterways "which from the Province of Valdinievole reach the Regia Strada Pisana" and the Arno river (where stopovers and ferries are regularly reported), to join it in Pisa-Livorno, in Florence and in Val d'Elsa (NAP, *RAT Map* 218), topics also dealt with in the contemporary *Map of the plains of Valdarno di Sotto and Bientina with the two respective paduli of Fucecchio and Bientina* (NAP, *RAT Map* 219); and that of the countless roads and the many canals with bridges and ports of the Valdichiana, at the time made the object of important reclamation and infrastructural interventions (NAP, RAT Map 262).

As everybody knows, maps have always been used for touristic enjoyment of an area, guiding travellers (from pilgrims to the aristocrats of the *Grand Tour*) along the easiest, well-served or most direct routes. In this sense, an emblematic example is constituted by the *Carta del Casentino, and part of the neighbouring Provinces to serve the itinerary with the famous Sanctuaries of the Provinces* – the abbeys of Vallombrosa, Camaldoli and La Verna, accessible by way of different routes from Florence and Arezzo , with a booklet attached – from 1803 (NAP, *RAT Map* 227/a).

In the copious documentation of the long trip of the Grand Duke in Romagna, Casentino, Valtiberina, Val di Chiana and Valdarno di Sopra of 1777-78 one may find the *Map of the two roads for Pratantico and Castagnolo* of the same year, with road connections to Arezzo, Casentino, Valdichiana and Valdarno di Sopra (NAP, *RAT Petr Leopold*, ms. 14, c. 178).

Other figures concern both the sub-regional scale, or the Valtiberina Toscana, with its streets connecting it to Arezzo, and the entire territory of Arezzo including Valdarno, Casentino, Valtiberina and Valdichiana, considered as a function of the remaking of the great Florence-Rome arterial road along the path of the ancient Cassia (NAP, *RAT Petr Leopold*, ms.18, verse 302 e c.443 rispettivamente); and the level of a specific arterial road, that is, the Colle Val d'Elsa-Massa Marittima in the newly planned tract for San Galgano in the second half of the 18th century; the two routes from Arezzo to Pratantico and Castagnolo; the via Lauretana between Siena and the Valdichiana, undergoing reconstruction (Fiorenzo Razzi's paper of 1777, with precise indication of the sections already finished, of those under construction, of those abandoned and those still to be built, with all the places that the road crosses: it also shows the complete route of the "Strada di Rapolano which then passes under Sinalunga and goes to Valdichiana", which begins at Taverne d'Arbia and connects with the Lauretana to the Fattoria dell'Amorosa) (rispettivamente in NAP, *RAT Map* 243; e NAP, *RAT Petr Leopold*, ms. 14, c. 178r e ms. 18, c. 289r); or the traffic support, such as the osteria di Fercole on the Consolare between Siena and Grosseto (NAP, *RAT Petr Leopold*, ms 7, cc 170v-171r).

We still have the map of the two Arezzian roads from Florence for the new route of Pontassieve for the years of 1770-90, as well as the old one of Bagno a Ripoli (NAP, *RAT Map* 233) and the *map of several roads of the Val d'Arno di Sopra that lead to Arezzo* in the area between Laterina and Bastardo (NAP, *RAT Map* 230).

The program of modernization of the viability that invested national and provincial roads (since 1825) also continued during the principality of Leopold II. In addition to the new large trans-Apennine viable routes open between the 20s-30s and 50s (Cisa, Porrettana, via del Muraglione and Bocca Trabaria), the main construction was undoubtedly the new Emilia-Aurelia coastal road between Pisa and the Pontifical border, designed and built between the 1920s and the 1930s (NAP, *RAT Map* 23) together with the many diverticula towards internal Tuscany. Significant improvements were invested in many other routes, such as the Strada Regia Pisana from Florence to Pisa and Livorno, described in 1830-35 in six sheets with a list of contractors and its division into cantons (NAP, *RAT Map* 148).

A map of 1847 highlights the new Pitigliano-Madonna delle Grazie road (NAP, RAT Map 546) and another gives an account of the urban plan of 1857 - for the expansion of the town on the land of the Alliata di Biserno farm - concerning the very small centre of San Vincenzo, in the Maremma between Cecina and Piombino, which was then reclaiming and repopulating, taking advantage of the new viable Aurelia (NAP, *RAT Map* 572, 574). We could continue analysing the various archival resources. As an example, we need only recall that the *Miscellanea di Piante* of the Florentine state archives includes about twenty 18th century maps specifically related to a road, represented in the actual state

or in a project of improvement: among these, the trans-Apennine Modena-Castelnuovo Garfagnana-Lucca-Bientina (No. 678), the Lauretana pilgrim route between Senese and Valdichiana (No. 69.a), the Senese-Roman route in Val di Pesa and Val d'Elsa (No. 230 .a, 230.b, 230.c, 230.d), the Florence-Poggio to Caiano-Pistoia (No. 547), the Florence-Pontassieve and the Pontassieve-Montevarchi (No. 12 e 13), the Romagna Rocca San Casciano-Terra del Sole (336.a), several roads between Valdarno di Sopra-Val d'Ambra and Aretino (751.iII, 751.lII, 751.mII, 751.nII) and others in Valdichiana (No. 69.b, 69.c, 69.d, 69.e, 69.f, 69.ge 69.h).

Evidently, these are the regional themed cartographies – such as the Tuscany of Gaspero Manetti of 1834 and 1846 (NAP, *RAT Map* 426, 430) – which codify the structure of the Tuscan road system in the '30s and then again in the '40s , while in 1846 the *Districts of communities collected for the expenses of provincial roads* are also available, as many as 65 colour plates on a 1:200.000 scale of the community territories constituting the district of the provincial roads and their sections, contained in a folder (NAP, RAT Map 122).

In Prague, there are many maps (NAP, *RAT Map* 1, 3-5, 9-16, 18-19 e 354) with the distribution of customs, bridges and roads with the headquarters of water and road engineers, trade fairs and markets. On the basis of Segato – published starting in 1832 –, the network of roads has the main markets and ferry lines between islands and the mainland (NAP, *RAT Map* 66). Manetti also favoured the system of areas surrounded by water and roads and community districts, with figures from 1832-1834 and 1846 (NAP, *RAT Map* 355, 418/a-b, 426, 429/a-b e 430), which makes analysis of the transformations in the system in those 14 years possible. Finally, in 1850, Fulvio Cocchi printed a hardcover atlas composed of 9 thematic maps updated on the administrative structure of Tuscany, shown on a double page (NAP, *RAT Map* 120), where the hierarchy of inhabitants is central as well as the distinction between second class and municipal capitals, together with royal and provincial roads and railways (Guarducci, Rombai, 2015).

Conclusion

The application of historical cartography - correctly integrated with past and recent written and iconographic documentary sources, as well as with today's territorial evidence – to the history of viability, in the Apennine quadrant between Modena-Bologna and Pistoia-Florence, is a prerogative of some essays contained in a recent volume on the trans-Apennine roads in the 18th and 19th centuries (Zagnoni, Borghi, Foschi, a cura di, 2017), and especially the two writings on the construction of the two Bolognese routes of Porretta to the Reno and Leopolda valleys to the Passo della Collina, known for centuries as Via Francesca della Sambuca (Ottanelli, 2017; e Zagnoni, 2017, anche Cassigoli, Farinelli, 2015; e Foschi, a cura di, 1999). It demonstrates how the cartographic sources also have the power to signal – therefore with concrete

possibilities of their identification on the land – the ancient road tracts and service artefacts (bridges, customs, inns) cut off from the new and easiest made routes, both in the Bolognese side and the Pistoia area.

More generally, the extensive review of Carlo Vivoli, published in Zagnoni, Borghi, Foschi (2017) – on studies and online realisations related to the countless ancient routes of that same mountain area connecting Emilia Romagna and Tuscany – now rediscovered, reused and valued, not only for hiking, on the initiative of voluntary associations, pro loco and municipal administrations – demonstrates in a paradigmatic way how historical research, correctly practiced, can become a real "civil service", thanks to the political-social and cultural value of local historiography and especially of historical sources, starting from cartographic and iconographic ones (Vivoli, 2017, pp. 77-79). Instruments that, among the many initiatives surveyed by Vivoli himself even for the Emilia side, have so far allowed – the scholars of Società Pistoiese di Storia Patria and the Italian Alpine Club, as part of the Viam project produced by the Province of Pistoia – to document and then recover 16 routes that have been active since medieval times on the Tuscan side of the Pistoiese mountain (Magno, Millemaci, a cura di, 1999) and the archivists of Pistoia to recognize and equip, in collaboration with the Provincial Administration, seven other mountain routes, just "drawing inspiration from the rich documented heritage made up of historical cartography" (aptpistoia.megamente.com). In this context, geometric representations (Figures 1-8) are worth giving value to the range of other sources (written, oral and object-based) in the perspective of spatial-temporal research with a marked strategic and sustainable potential, as in the case of the vie romee with structures created as traffic supports, and sometimes as pilgrim hospitality, still lacking in studies that have considered cartography related to viability and the road network as a whole.

**Figure 1:** Map of Tuscany with road network, Girolamo Segato, 1832.
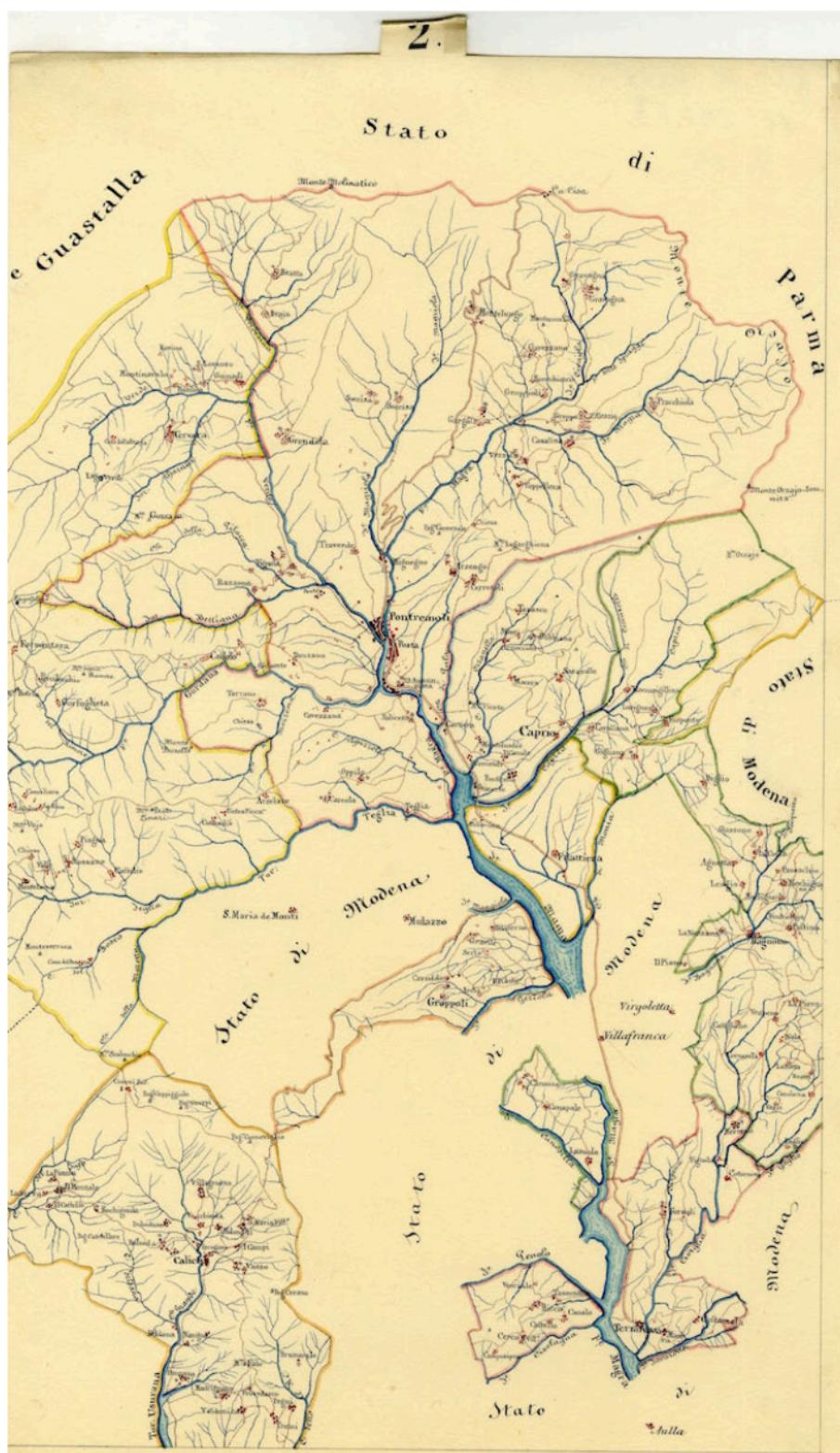
Figure 2: Detail of the Tuscany handwritten map in scale 1:100,000, Giovanni Inghirami, 1835-40, folio 2
Source: National Archives of Praga, *Rat Map* 362

Figure 3: Detail of the Tuscany handwritten map in scale 1:100,000, Giovanni Inghirami, 1835-40, folio 17
Source: National Archives of Praga, *Rat Map* 362

Figure 4: Detail of the Tuscany handwritten map in scale 1:100,000, Giovanni Inghirami, 1835-40, folio 18
Source: National Archives of Praga, *Rat Map* 362

Figure 5: Detail of the Tuscany handwritten map in scale 1:100,000, Giovanni Inghirami, 1835-40, folio 19
Source: National Archives of Praga, *Rat Map* 362
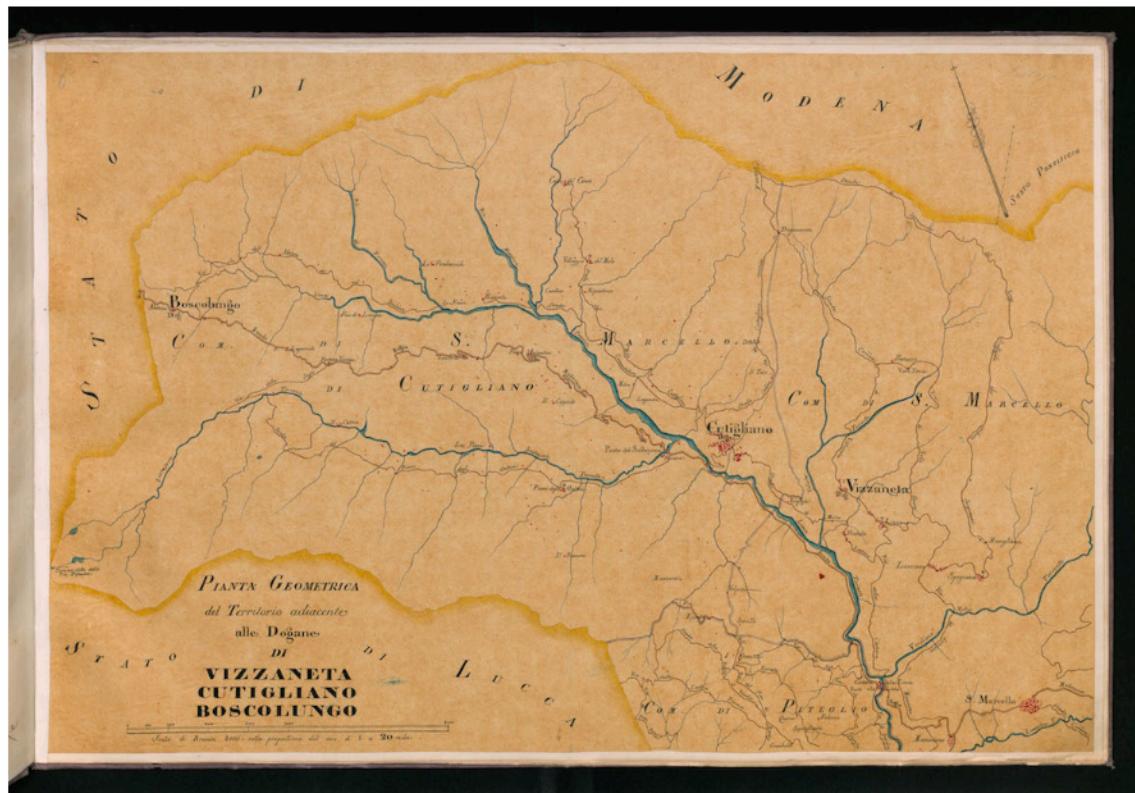
Figure 6: Map of the Pistoia Mountain with the Modena road or Ximenes-Giardini from Abetone to San Marcello, handwritten about 1830

Source: National Archives of Florence, *Miscellanea di Piante* 287f
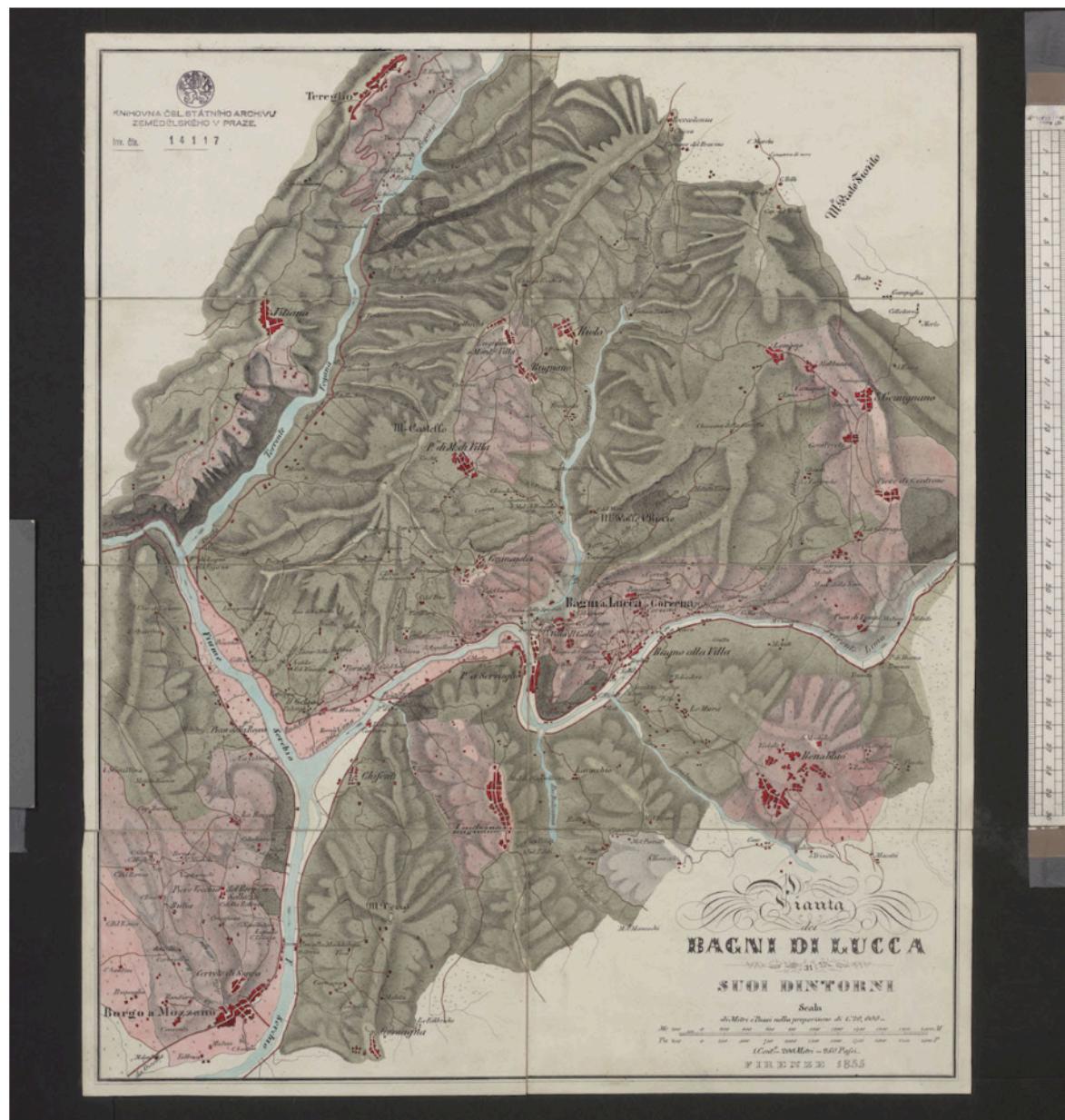
Figure 7: Map of Bagni di Lucca and its surroundings, Military Topographical Office, (1855-56)

Figure 8: Canals and roads between Valdinievole and Valdarno di Sotto, handwritten from the second half of the 18th century
Source: National Archives of Praga, *Rat Map* 218

References

Archivio di Stato di Firenze (1991). *La Toscana dei Lorena nelle mappe dell'Archivio di Stato di Praga. Memorie ed immagini di un Granducato*. Firenze: Edifir.

Armanini, M. G. (2006). Progettazione e realizzazione della "Strada della Tambura" sul versante massese attraverso le fonti archivistiche (pp. 61-71). In A. Mordini & M. Pellegrini (Eds.), *La strada ducale di Foce a Giovo da Lucca a Modena, tra storia, arte e natura*. Lucca: Pacini Fazzi.

Bacci, A. (1985). *Strade romane e medioevali nel territorio aretino. Persone, luoghi e chiese nella diocesi di San Donato*. Pieve a Maiano: Centotre-oro.

Bacci, A. (1986b). *Strade romane e medioevali nel territorio aretino. Persone, luoghi e chiese nella diocesi di San Donato*. Cortona: Calosci.

Bacci, A. (1998). *Antica viabilità aretina. Dal Campione di strade e fiumi del 1798*. Cortona: Calosci.

Bacci, A. (2002). La Via dell'Alpe di Serra. *De strata Francigena, X/1*.

Barsanti, D. (1987). *Documenti geocartografici nelle biblioteche e negli archivi privati e pubblici della Toscana. 1, Le piante dell'Ufficio Fiumi e Fossi di Pisa*. Firenze: Olschki.

Barsanti, D. (1992). *Il fondo cartografico dell'Osservatorio Ximeniano di Firenze*. Milano: Giunta Regionale Toscana, Bibliografica.

Barsanti, D., (Ed.) (1991). *Le commende dell'Ordine di S. Stefano attraverso la cartografia antica*. Pisa: Edizioni ETS.

Barsanti, D., Bonelli Conenna, L. & Rombai, L. (2001). *Le carte del granduca. La Maremma dei Lorena attraverso la cartografia*. Comune di Grosseto.

Barsanti, D., Previti, F. L. & Sbrilli, M. (1989). *Piante e disegni dell'Ordine di S. Stefano nell'Archivio di Stato di Pisa*. Pisa: Edizioni ETS.

Benigni P. *et al.* (1998). *Empoli: città e territorio. Vedute e mappe dal '500 al '900*. Empoli: Edizioni dell'Acero.

Bertuccelli Migliorini, A. V. & Caccia, S. (Ed.) (2006), *Mirabilia maris. Le marine lucchesi tra XVI e XVIII secolo, visioni cartografiche e resoconti di viaggio*. Pisa: Edizioni ETS.

Bonelli, L. (2004). Il paesaggio attraverso la cartografia: appunti per una storia dei cabrei toscani (pp. 389-407). In L. Bonelli, A. Brilli, G. Cantelli (Eds), *Il paesaggio*

toscano. Storia e rappresentazione. Milano: Monte dei Paschi di Siena, Silvana Editoriale.

Bonelli Conenna, L. (Ed.) (1997). *Codici e Mappe dell'Archivio di Stato di Praga. Il tesoro dei granduchi di Toscana*. Siena: Protagon.

Borgi, A. (1977). *La rete stradale della Toscana nei suoi caratteri attuali, nella sua evoluzione storica, nelle sue esigenze di sviluppo*. Firenze: Istituto Geografico Militare.

Caleca, A. & Mazzanti R. (1982). Le carte del Valdarno Inferiore e della Toscana marittima di Leonardo. Sintesi di un territorio agli inizi del XVI secolo. *Bollettino della Società Geografica Italiana, s. XII, vol. XXVII*, 691-719.

Cantile, A. (2013). *Lineamenti di storia della cartografia italiana* (2 voll.). Roma: Geoweb.

Cantile, A., (Ed.) (2008). *Toscana geometrica. La prima corografia geodetica regionale e il contributo dell'Osservatorio Ximeniano*. Firenze: Istituto Geografico Militare.

Cantile, A., Lazzi, G. & Rombai L., (Eds.) (2004). *Rappresentare e misurare il mondo. Da Vespucci alla modernità*. Firenze: Edizioni Polistampa.

Cantini, M. (2009). *Le strade di Fiesole*. Firenze: Comune di Fiesole, Edizioni Polistampa.

Cartografia e istituzioni in età moderna (1987) (2 voll.). Genova: Società Ligura di Storia Patria.

Cassigoli, J. & Farinelli, G. (2015). *La via romea imperiale. Mantova, Modena, Pistoia. Sulla strada dei sovrani germanici*. Pistoia: Settegiorni Editore.

Casti, E. (1998). *L'ordine del mondo e la sua rappresentazione*. Milano: Unicopli.

Casti Moreschi, E. (1993). Cartografia e politica territoriale nella Repubblica di Venezia (secoli XIV-XVIII). In *La cartografia italiana* (pp. 79-101). Barcelona: Institut Cartogràfic de Catalunya.

Ciampi, G. (Ed.) (1987). *Il Libro Vecchio di Strade della Repubblica Fiorentina*. Firenze: Papafava.

Comba, R. & Sereno, P. (Ed.) (2002). *Rappresentare uno Stato. Carte e cartografi degli Stati Sabaudi dal XVI al XVIII secolo* (2 Voll.), Torino-Londra-Venezia: Umberto Allemandi & C.

Farinelli, F. (1992). *I segni del mondo. Immagine cartografica e discorso geografico in età moderna*. Firenze: La Nuova Italia.

Fatucchi, A. (1996). Le vie dei Romei dell'Europa centro-settentrionale attraverso il territorio aretino, *Atti e Memorie dell'Accademia Petrarca, N.S., LXVIII*, 265-311.

Ferretti, E. & Terreni, S. (Eds.) (2000). *Dalle identità del passato alla progettazione del futuro.* Comune di Empoli.

Foschi, P. (Ed.) (1999). *Le vie francigene e romee tra Bologna e Roma*. Bologna: Officine Grafiche Calderini.

Francovich, R. (1976). Materiali per una storia della cartografia toscana: la vita e l'opera di Ferdinando Morozzi, *Ricerche Storiche, VI*, 445-512.

Francovich, R. (1978). Una carta inedita sconosciuta di interesse storico e archeologico: la "Geografia della Toscana e breve compendio delle sue Historie" (1596) di Leonida Pindemonte. In *Essays presented to Myron P. Gilmore* (pp. 167-178). Firenze: La Nuova Italia.

Gallo, N. (1993). *Cartografia storica e territorio nella Lunigiana centro orientale*. Sarzana: Lunaria.

Gambi, L. (1995). *Lo spazio disegnato*. Archivio di Stato di Bologna.

Gheri, A. & Rossi, A. R. (2003). L'utilizzo della ricerca geostorica nello studio della franosità. Il caso del borgo di Legnodano (Zeri, Ms) nel XVIII secolo, *Rivista Geografica Italiana, CX,* 123-138.

Ginori Lisci, L. (1978). *Cabrei in Toscana. Raccolta di mappe, prospetti e vedute (sec. XVI-sec. XIX)*. Firenze: Cassa di Risparmio di Firenze.

Guarducci, A. (2001). La Toscana nella cartografia militare francese dell'Armée de Terre*, L'Universo, LXXXI,* 542-560.

Guarducci, A. (2003). Rassegna bibliografica sulla storia della cartografia e la cartografia storica della Toscana. In *Trame nello spazio. Quaderni di geografia storica e quantitativa/1* (pp. 39-46). Firenze: All'Insegna del Giglio.

Guarducci, A. (2005). La cartografia delle bonifiche della Valdichiana (secc. XVI-XIX). In G. Di Pietro (Ed.), *Atlante della Valdichiana. Cronologia della bonifica* (pp. 77-88). Livorno: Regione Toscana, Debatte Editore.

Guarducci, A. (2008), *Cartografie e riforme. Ferdinando Morozzi e i documenti dell'Archivio di Stato di Siena*. Firenze: All'Insegna del Giglio.

Guarducci, A. (2009). *L'utopia del catasto nella Toscana di Pietro Leopoldo. La questione dell'estimo geometrico-particellare nella seconda metà del Settecento.* Firenze: All'Insegna del Giglio.

Guarducci, A. (2016). La carta manoscritta del Granducato di Toscana al 100 000 dell'Archivio Nazionale di Praga e i rapporti con la mappa perduta di Giovanni Inghirami del 1831. *Trame nello Spazio, 5*, 53-64.

Guarducci, A., (Ed.) (2006). *Mappe e potere. Pubbliche istituzioni e cartografia nella Toscana moderna e contemporanea (secoli XVI-XIX)*. Firenze: All'Insegna del Giglio, Firenze.

Guarducci, A. & Rombai, L. (2015). Le mappe degli Asburgo Lorena di Toscana nell'Archivio Nazionale di Praga. *Trame nello Spazio, 4*, 73-100.

Guarducci, A. & Rombai, L. (2016). L'indagine geostorica. In A. Marson (Ed.), *La struttura del paesaggio* (pp. 61-82). Roma-Bari: Editori Laterza.

Lago, L. (2002). *Imago Italiae. La fabrica dell'Italia nella storia della cartografia tra Medioevo ed età moderna. Realtà, immagine e immaginazione dai codici di Claudio Tolomeo all'Atlante di Giovanni Antonio Magini*. Trieste: Edizioni dell'Università di Trieste/Goliardica Editrice.

Karwacka Codini, E. & Sbrilli, M. (1987). *Archivio Salviati. Documenti sui beni immobiliari dei Salviati: palazzi, ville, feudi. Piante del territorio*. Pisa: Scuola Normale Superiore.

Karwacka Codini, E. & Sbrilli M. (1993). *Piante e disegni dell'Archivio Salviati. Catalogo*. Pisa: Scuola Normale Superiore.

La viabilità tra Bologna e Firenze nel tempo. (1992). *Problemi generali e nuove acquisizioni.* Bologna: Costa editore.

La Via Vandelli nel quadro della viabilità settecentesca nel Modenese. Atti del Convegno (Pavullo, 27 settembre 1986). (1987). Modena: Provincia di Modena.

La via Vandelli, strada ducale del '700 da Massa a Modena: viaggio tra storia e natura. Catalogo della mostra realizzata dal Comune di Massa con la collaborazione della Provincia di Modena. (1994). Massa: Tip. Ceccotti.

La Via Vandelli: strada ducale del Settecento da Modena a Massa. (2001). Modena: Artestampa.

Lera, F. & Lera, G. (2006). La Via Ducale detta Modenese da Bagni di Lucca a Foce a Giovo, nel Ducato di Lucca: la sua storia dai documenti d'archivio. In M. Mordini & M. Pellegrini (Eds.), *La strada ducale di Foce a Giovo da Lucca a Modena: tra storia, arte e natura* (pp. 13-38). Lucca: Pacini Fazzi.

Magno, A. & Millemaci, G. (Eds.) (1999). *Viabilità medievale nella Provincia di Pistoia*. Pistoia: Provincia di Pistoia-Società Pistoiese di Storia Patria.

Marcaccini, P. & Calzolai, L. (2003). *I percorsi della transumanza in Toscana*, Firenze: Edizioni Polistampa.

Marcaccini, P. & Petrini Parrini, M. L. (2000). La Via Aemilia Scauri in Etruria: ipotesi di percorso nella Maremma pisana e piombinese. *Journal of Ancient Topography/Rivista di Topografia Antica, X,* 23-104.

Mazzanti, R. (1982). *Il Capitanato Nuovo di Livorno (1606-1808). Due secoli di storia del territorio attraverso la cartografia*. Pisa: Pacini.

Mazzanti, R. & Pasquinucci, M. (1983). L'evoluzione del litorale lunese-pisano fino alla metà del XIX secolo. *Bollettino della Società Geografica Italiana, s. X, vol. XII*, 605-628.

Mazzanti, R. & Pult Quaglia, A. M. (1986). L'evoluzione cartografica nella rappresentazione della pianura di Pisa. In *Terre e paduli: reperti, documenti, immagini per la storia di Coltano* (pp. 251-260). Pontedera: Bandecchi e Vivaldi.

Mazzanti, R. & Sbrilli, M. (1991). Le carte del territorio di Vecchiano nell'Archivio Salviati. In O. Banti *et al*. (Eds.), *Il fiume, la campagna, il mare. Reperti documenti immagini per la storia di Vecchiano* (pp. 237-266). Pontedera: Bandecchi e Vivaldi.

Mordini, A. (2006). *La via della Foce a Giovo nel Ducato di Modena: la sua storia dai documenti d'archivio*. In M. Mordini M. & M. Pellegrini (Eds.), *La strada ducale di Foce a Giovo da Lucca a Modena: tra storia, arte e natura* (pp. 39-62). Lucca: Pacini Fazzi.

Moreno, D. (1990). *Dal documento al terreno. Storia e archeologia dei sistemi agro-silvo-pastorali*. Bologna: Il Mulino.

Moresco, R. (2008). *L'isola di Capraia: carte e vedute tra cronaca e storia (secoli XVI-XIX)*. Livorno: Debatte Editore.

Muzzi, O., Stopani, R. & Szabo, T. (1978). La Valdelsa, la via Francigena e gli itinerari per Roma e Compostella. *Quaderni del Centro Studi Romei, n. 2.*

Nuti, L. (1996). *Immagini di città. Visione e memoria fra Medioevo e Settecento*. Venezia: Marsilio.

Ottanelli, A. (2017). La Porrettana, già strada "ruotabile Leopolda" da Pistoia al confine pontificio. In R. Zagnoni, G. P. Borghi & P. Foschi (Eds.), *"Per strade serpeggianti per monti e dirupi". Le strade transappenniniche tra Sette e Ottocento: Futa, Porrettana, Giardini Ximenes, Foce a Giovo, Vandelli* (pp. 103-128). Porretta Terme: Gruppo di Studi Alta Valle del Reno.

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Pansini, G. (Eds.) (1989-1990), *Piante di Popoli e Strade-Capitani di Parte Guelfa, 1580-1595* (2 voll.). Firenze: Olschki.

Pellegrinetti, G. (1987). La viabilità del Ducato Cybo-Malaspina nel quadro della situazione viaria del '700 nell'area circostante. In M. Pellegrini & F. M. Pozzi (Eds.), *La via Vandelli, strada ducale del '700 da Modena a Massa. I percorsi del versante emiliano* (pp. 136-141). Modena: Artioli.

Pellegrini, M. & Pozzi, F. M. (Eds.) (1989). *La via Vandelli, strada ducale del '700 da Modena a Massa. Dal Frignano alla Garfagnana e al Ducato di Massa*. Modena: Artioli.

Pellegrini, M. & Pozzi, F. M. (2006). La Via di Foce a Giovo, una strada sfortunata, ma non solo. In M. Mordini & M. Pellegrini (Eds.), *La strada ducale di Foce a Giovo da Lucca a Modena: tra storia, arte e natura* (pp. 63-84). Lucca: Pacini Fazzi.

Piussi, P. & Stiavelli, S. (1986). Dal documento al terreno. Archeologia del bosco delle Pianora (colline delle Cerbaie, Pisa). *Quaderni Storici, XXI, 62,* 445-466.

Quaini, M. (1986). *Carte e cartografi della Liguria*. Genova: Sagep.

Quaini, M., Rombai, L. & Rossi, L. (1995). *La descrizione, la carta, il viaggiatore. Fonti degli archivi parigini per la geografia storica e la storia della cartografia italiana*. Istituto Interfacoltà di Geografia dell'Università di Firenze.

Rombai, L. (1992). Per una storia della viabilità provinciale di Firenze: la "rivoluzione stradale", gli interventi dei governi granducali, la gestione provinciale. In L. Rombai (Ed.), *Le strade provinciali di Firenze. Storia, geografia, toponomastica* (pp. 83-115). Firenze: ed. Amministrazione Provinciale di Firenze, Olschki.

Rombai, L. (1995). Cartografia antica e beni paesistico-territoriali del Casentino. In P. Schiatti (Ed.), *Il patrimonio architettonico minore diffuso del Casentino. Raggiolo e la valle del Teggina* (pp. 41-50). Montepulciano: Editori del Grifo.

Rombai, L. (1995). La rappresentazione cartografica del Principato e il territorio di Piombino (secoli XVI-XIX). In Sovrintendenza Archivistica per la Toscana (Ed.), *Il potere e la memoria. Piombino stato e città nell'età moderna* (pp. 47-56). Comune di Piombino: Edifir, Firenze.

Rombai, L. (1997). Nell'archivio dei granduchi: sapere geografico/cartografico e governo del territorio nella Toscana lorenese/Repertori e figure. In L. Bonelli Conenna (Ed.), *Codici e mappe dell'Archivio di Stato di Praga. Il tesoro dei granduchi di Toscana* (pp. 111-138 and 57-98). Siena: Protagon Editori.

Rombai, L. (2004). La cartografia degli enti collettivi. Problemi di attribuzione di responsabilità. *Geostorie, 12,* 101-117.

Rombai, L. (2008). Le fonti della cartografia storica della Toscana. In A. M. Rovida (Ed.), *Fonti per la storia dell'architettura, della città, del territorio* (pp. 27-60). Firenze: Firenze University Press.

Rombai, L. (2013). *Toscana e Italia tra Risorgimento e Unità. Le innovazioni cartografiche del XIX secolo nelle conservatorie dell'Istituto Geografico Militare*. Firenze: Istituto Geografico Militare.

Rombai, L. (2017). Relazione introduttiva. In R. Zagnoni, G. P. Borghi & P. Foschi (Eds.), *"Per strade serpeggianti per monti e dirupi". Le strade transappenniniche tra Sette e Ottocento: Futa, Porrettana, Giardini Ximenes, Foce a Giovo, Vandelli* (pp. 15-26). Porretta Terme: Gruppo di Studi Alta Valle del Reno.

Rombai, L. (Ed.) (1990). *La memoria del territorio. Fiesole tra '700 e '800 secondo le geo-iconografie d'epoca*. Comune di Fiesole.

Rombai, L. (Ed.) (1993). *Imago et descriptio Tusciae. La Toscana nella geocartografia dal XV al XIX secolo*. Venezia: Giunta Regionale Toscana, Marsilio.

Rombai, L. & Ciampi, G. (1979). *Cartografia storica dei Presidios in Maremma, secoli XVI-XVIII*. Siena: Consorzio Universitario della Toscana Meridionale.

Rombai, L. & Sorelli, M. (1985). La viabilità del Mugello occidentale intorno alla metà del Settecento. In *Percorsi e valichi dell'Appennino fra storia e leggenda: Futa, Osteria Bruciata, Giogo* (pp. 35-62). Firenze: Giorgi e Gambi.

Rombai, L. & Sorelli M. (1992). Ambienti e paesaggi secondo la cartografia sette-ottocentesca. In G. L. Corradi (Ed.), *Il Parco del Crinale tra Romagna e Toscana* (pp. 37-71), Firenze: Alinari.

Rombai, L., Toccafondi, D. & Vivoli, C. (Eds.) (1987). *Documenti geocartografici nelle biblioteche e negli archivi privati e pubblici della Toscana, 2, I fondi cartografici dell'Archivio di Stato di Firenze, I – Miscellanea di Piante*. Firenze, Olschki.

Rombai, L. & Torchia, A. M. (1994). *La cartografia toscana nella raccolta "Nuove Accessioni" della Biblioteca Nazionale di Firenze*. Istituto Interfacoltà di Geografia dell'Università di Firenze.

Romby, G. C. (2001). *Le proprietà dell'Ospedale degli Innocenti di Firenze: documenti e cartografia secoli XVI-XVIII*. Pisa: Pacini.

Romby, G. C., Rombai, L. & Tarchi, G. (2004). La Valdinievole nelle carte e mappe del Consorzio di Bonifica del Padule di Fucecchio. In *L'anima antica del Padule di Fucecchio. Le opere idrauliche dal 1780 ad oggi: un patrimonio da conservare* (pp. 29-76). Firenze: Edifir.

Romiti, B. (2007). *L'archivio della Direzione poi Commissariato delle Acque e Strade* (3 voll.). Lucca: Accademia Lucchese di Scienze, Lettere e Arti (Studi e Testi, LXXXI).

Rossi, L. (2003). *Lo specchio del Golfo. Paesaggio e anima della provincia spezzina*, Sarzana: Agorà Edizioni.

Rossi, L. (Ed.) (2008). *Napoleone e il golfo della Spezia. Topografi francesi in Liguria tra il 1809 e il 1811*. Milano: Comune della Spezia, Silvana Editoriale.

Santini, G. (1989). Strade, uomini e montagne. La viabilità presettecentesca tra il Tirreno e il fiume Po. Le strade come strutture territoriali. In M. Pellegrini & F. M. Pozzi (Eds.), *La via Vandelli, strada ducale del '700 da Modena a Massa. Dal Frignano alla Garfagnana e al Ducato di Massa* (pp. 145-157). Modena: Artioli.

Sterpos, D. (1961). *Comunicazioni stradali attraverso i tempi: Bologna-Firenze*. Roma: Società Italiana Autostrade.

Sterpos, D. (1964). *Comunicazioni stradali attraverso i tempi: Firenze-Roma*. Roma: Società Italiana Autostrade.

Sterpos, D. (1974). *Porti adriatici e paesi dell'Appennino nel secolo XVIII*. Roma: Società Autostrade.

Sterpos, D. (1981). La "soluzione Faentina" per le comunicazioni fra Firenze e la Romagna toscana: dalle prime proposte settecentesche alla creazione della rotabile. *Studi Romagnoli, XXXII,* 89-103.

Stopani, R. (1984). *La Via Francigena in Toscana. Storia di una strada medievale*. Firenze: Salimbeni.

Stopani, R. (1984). La via Romana del Chianti. *Il Chianti. Storia, Arte, Cultura, Territorio, I*, 91-93.

Stopani, R. (1991). *Le vie di pellegrinaggio del Medioevo. Gli itinerari per Roma, Gerusalemme, Compostella*. Firenze: Le Lettere.

Stopani, A. (1997). La Via Francigena e la Via dell'Alpe di Serra: due percorsi romipeti alternativi. *De Strata Francigena, V/1*, 9-21.

Stopani, R. *et al.* (1993). *"Imago Clantis". Cartografia e iconografia chiantigiana dal XVI al XIX secolo*. Poggibonsi: Centro di Studi Chiantigiani "Clante", Arti Grafiche Nencini.

Stopani A. & Vanni F. (1996). Il Montalbano: un distretto stradale del Medioevo. *De Strata Francigena, IV/1*, 37-53.

Valerio, V. (1993). *Società, uomini e istituzioni cartografiche nel Mezzogiorno d'Italia*, Firenze: Istituto Geografico Militare.

Vanni, F. & Bassini, L. (1995). Bibliografia sulla Via Francigena. *De Strata Francigena, III.*

Vivoli, C. (2017). Lungo antichi percorsi: un diverso modo di viaggiare oggi. In R. Zagnoni, G. P. Borghi & P. Foschi (Eds.), *"Per strade serpeggianti per monti e dirupi". Le strade transappenniniche tra Sette e Ottocento: Futa, Porrettana, Giardini Ximenes, Foce a Giovo, Vandelli* (pp. 75-80). Porretta Terme: Gruppo di Studi Alta Valle del Reno.

Zagnoni, R. (2017). Tagli di rupi e ponti nella costruzione della strada Porrettana nei documenti dell'Archivio della Provincia di Bologna. In R. Zagnoni, G. P. Borghi & P. Foschi (Eds.), *"Per strade serpeggianti per monti e dirupi". Le strade transappenniniche tra Sette e Ottocento: Futa, Porrettana, Giardini Ximenes, Foce a Giovo, Vandelli* (pp. 129-142). Porretta Terme: Gruppo di Studi Alta Valle del Reno.

Zuccagni Orlandini, A. (1832). *Atlante geografico, fisico, storico del Granducato di Toscana.* Firenze. Stamperia Granducale.

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[1] Particularly *Acque e Strade*, 1523-1847; *Offizio sopra le differenze dei Confini*, 1601-1801; *Offizio sopra i Paduli di Sesto*, 1560-1801; *Capitoli*, secolo XVI.

[2] *Riformagioni*, 1300 circa-1784; *Capitani di Parte Guelfa* and the relative *Piante*, 1549-1769; *Congregazione di Strade e Ponti*, 1677-1769; *Camera delle Comunità Luoghi Pii Fiumi Ponti e Strade* and the relative *Piante di Ponti e Strade*, 1769-1825; *Nove Conservatori* and the relative *Piante antiche dei Confini*, 1560-1782; *Auditore delle Riformagioni* e *Avvocato Regio* and the relative *Piante moderne dei Confini*, 1777-1860; *Segreteria di Finanze*, 1739-1848; *Ministero di Finanze*, 1848-60; *Acque e Strade*, 1825-1862; *Deputazioni per il Catasto*, 1807-62; *Miscellanea di Piante*, secoli XVI-XIX).

[3] Particularly the *Ufficio dei Fiumi e Fossi* and the relative *Piante*, 1547-1826.

[4] Particularly the *Quattro Conservatori dello Stato Senese* and the *Piante* preserved aside, 1561-1786; *Ufficio Generale delle Comunità*, 1786-1825; *Camera di Soprintendenza Comunitativa*, 1825-48.

[5] Particularly the *Ufficiali dei Fiumi e Strade* and the dependant *Congregazione sopra l'Ombrone*, 1561-1776.

[6] The specific *Nuovo Catasto prediale uniforme* of Maria Beatrice d'Este, 1820-26.

[7] Particularly the *Ufficio dei Fiumi e Fossi/Ufficio dei Fossi e Coltivazioni*, 1581-1825.

[8] Particularly of Rome (State archive, ministerial archives, Historical Institute and of the Arma del Genio culture), of Genoa (State archive and hydrographic institute of the marina), of Modena (particularly with the resources: *Mappario Estense*, *Mappe Campori* and *Catasto preunitario*), of Bologna (particularly of *Catasto Boncompagni* and the *Catasto Gregoriano*), of Parma (particularly with the recources of *Mappe e disegni*, *Mappe dei fiumi e strade dei Ducati di Parma, Piacenza e Guastalla* and *Catasti*) and of Naples, always with the respective state archive.

[9] Especially of Spain – State archives of Madrid and Simancas –, of Francia – National archives of Paris and Vincennes namely Service Historique de l'Armée de Terre and Service de la Marine –, of Austria – State archives of Vienna and the Ministry of War –, of Great Britain – State archive of London and Marine archive –, and the Czech Republic – National Archives of Prague/Hapsburg Lorraine Fund of Tuscany (NAP, *RAT Map*).

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[10] Suffice to refer oneself to the national libraries of Paris and Vienna, followed by those of Madrid and London.

[11] It must be said that this seemingly obvious research requirement – and well underlined during meetings of a theoretic-conceptual basis which took place in the 1980s – is not always present in the operative practice of recent historic-cartographic studies, which, as in the past, often end with the favouring of single documents or certain graphical collections, also considered in a chronological sequence among themselves, and with reference to a determined geographic or urban space, to bring the geo-historical dynamics into focus.

[12] For instance www.segnidelterritorio.comune.prato.it, www.toscanatirrenica.it and www.imagotusciae.it which display the immense Tuscan results – the first on Prato cartography – realised by Marco Piccardi and Anna Guarducci.

[13] For the Aurelia/Emilia Tyrrhenian console and for other *vie* of Tuscany i reference the studies of Paolo Marcaccini and his collaborators (Marcaccini, Petrini Parrini, 2000; Marcaccini, Calzolai, 2003). For the Fiesolano, in Cantini, 2009, which – in addition to utilising the copious literature and print available – analysed the well-equipped local archives (the Storico Comunale and those of the diocese and the cathedral chapter house), drawing solid data and information from them: suffice to indicate the many lists/censuses and specific cartography of the municipal streets and repairs drawn up by the administration of Fiesole from 1868 (of which the 1939 one is fundamental, it reorganises the whole system and is connected to the new Italian cadastre); the general censuses of the population which took place each decade between 1861 and 1936 with the series of "stati di sezione"; the acts and approvals of the *Giunta* and the municipal council; and the original *Campione ossia descrizione delle strade comunitative che sono nella Comunità di Fiesole* drawn up in 1779 – with regards to the Regolamento Generale of the 23rd May 1774.

[14] Demonstrated by, for example, the *Pianta del territorio di Massa* of the first half of the 18th century, which reports various mines and ten castel ruins in the Massa Marittima territory (State archives of Florence/ASF, *Miscellanea di Piante*, n. 167).

[15] For example, the *Pianta corografica del Capitanato di Pietrasanta* of Carlo Maria Mazzoni of 1764 identifies many mines even cultivated in ancient times (ASF, *Miscellanea di Piante*, n. 192).

[16] Particularly dense was the intersection of the trans-alpine muleteers of Modena and Bologna who, across the existing passages between the Lima valley (tributary of Serchio) and other Lima valleys (tributaries of Reno), towards Boscolungo, today Abetone, Cutigliano, Lizzano, San Marcello, Maresca, Orsigna, Pracchia, Sambuca, Treppio and Torri, converged in Pistoia or emanated from this town, to Florence, from Tyrrhenian ports or other grand duchy cities. However, not all travellers were directed towards Florence from Pistoia; some cut through for passes for Montalbano, particularly if they were directed towards Pisa and its port or in any case to Valdarno di Sotto and Valdelsa (Stopani, Vanni, 1996).

[17] According to Giovanni Villani, thirty hospitals existed with over 1000 beds only in Florence between the 13th and 14th century, destined to become (along with their churches) among the most emblematic architectural and cultural symbols of the city: they were significantly situated mostly in the *vie San Gallo* and *Romana*, that is to say that along the Bologna-Florence-Rome route since the time of the "road revolution" it should be considered the fundamental axis of communication for the peninsula (Sterpos, 1961 e 1964).

[18] The people of Lucca could opt, to the west, for Vandelli and, to the east, for Ximeniana or for Bolognese della Futa: in any case, the journey was long and subject to many taxes for crossing the grand duchy territory or that of Modena.

[19] Mordini, 2006, pp. 55-58. Even in the Modenese, the different projects became competitors with that of the engineer Giuseppe Manzotti chosen, with work beginning February 1822 and concluding at the end of 1823, with the founding of the roadbed, of five stone bridges and others made from wood, of the customs of Salaroli and the lodging in the Terzetto plain (Lera, Lera, 2006, pp. 14 e 17-38 per il tratto lucchese, Mordini, 2006, pp. 40-47 per il tratto modenese fino alla via Giardini; e Pellegrini, Pozzi, 2006, pp. 65-79 per l'intero percorso).

[20] For example, the *Il Granducato di Toscana* map printed in Florence at the Pagani press in 1773.

[21] Few examples of sixteenth-century maps, drawn for some states of the time, like that of the Duchy of Ferrara of Marc'Antonio Pasi and Giovan Battista Aleotti and that of the Republic of Lucca of Alessandro Resta.

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[22] As for example, the municipalities of Prato, Pontassieve, Fiesole, Bagno a Ripoli, Campi Bisenzio, San Casciano Val di Pesa, Legnaia, Casellina and Torri did; today Scandicci, San Marcello Pistoiese, Barberino di Mugello, the municipality of Pietrasantino, etc., of which the road plantar have recently been published in facsimile.

[23] The detailed *Topografia militare di alquante strade, vie e viottoli, che dall'interno della Toscana conducono sui suoi confini* is in the Biblioteca Riccardiana di Firenze, *Palagi*, 251.